

Student name: _____

TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

1) A cost driver is a factor, such as machine-hours, beds occupied, computer time, or flight-hours, that causes direct costs.

- true
- false

2) Job-order costing systems often use allocation bases that do not reflect how jobs actually use overhead resources.

- true
- false

3) An employee time ticket is an hour-by-hour summary of the employee's activities throughout the day.

- true
- false

4) The formula for computing the predetermined overhead rate is: $\text{Predetermined overhead rate} = \frac{\text{Estimated total amount of the allocation base}}{\text{Estimated total manufacturing overhead cost}}$

- true
- false

5) Generally speaking, when going through the process of computing a predetermined overhead rate, the estimated total manufacturing overhead cost is determined before estimating the amount of the allocation base.

- true
- false

6) If a job is not completed at year end, then no manufacturing overhead cost would be applied to that job when a predetermined overhead rate is used.

- true
- false

7) Actual overhead costs are not assigned to jobs in a job costing system.

- true
- false

8) The amount of overhead applied to a particular job equals the actual amount of overhead caused by the job.

- true
- false

9) If the overhead rate is computed annually based on the actual costs and activity for the year, the manufacturing overhead assigned to any particular job can be computed as soon as the job is completed.

- true
- false

10) Job cost sheets contain entries for actual direct material, actual direct labor, and actual manufacturing overhead cost incurred in completing a job.

- true
- false

11) In a job-order cost system, indirect labor is assigned to a job using information from the employee time ticket.

- true
- false

12) If the allocation base in the predetermined overhead rate does not drive overhead costs, it will nevertheless provide reasonably accurate unit product costs because of the averaging process.

- true
- false

13) A job cost sheet is used to record how much a customer pays for the job once the job is completed.

- true
- false

14) In a job-order costing system, costs are traced to individual units of product. The sum total of such traced costs is called the unit product cost.

- true
- false

15) The fact that one department may be labor intensive while another department is machine intensive explains in part why multiple predetermined overhead rates are often used in larger companies.

- true
- false

16) A company will improve job cost accuracy by using multiple overhead rates even if it cannot identify more than one overhead cost driver.

- true
- false

17) The appeal of using multiple departmental overhead rates is that they presumably provide a more accurate accounting of the costs caused by jobs.

- true
- false

18) The costs attached to products that have not been sold are included in ending inventory on the balance sheet.

- true
- false

19) In absorption costing, nonmanufacturing costs are assigned to units of product.

- true
- false

20) An employee time ticket is used to record points that are earned by employees based on the hours they worked that can be used to pay for coffee, food in the cafeteria, and even in some cases for vacation travel.

- true
- false

21) A bill of materials is a document that lists the type and quantity of each type of direct material needed to complete a unit of product.

- true
- false

22) Most countries require some form of absorption costing for external reports.

- true
- false

23) When the fixed costs of capacity are spread over the estimated activity of the period rather than the level of activity at capacity, the units that are produced must shoulder the costs of unused capacity.

- true
- false

24) When the predetermined overhead rate is based on the level of activity at capacity, an item called the Cost of Unused Capacity may appear to be treated as a period expense on income statements prepared for internal management use.

- true
- false

25) If the predetermined overhead rate is based on the estimated level of activity for the current period, then products will be charged only for the capacity that they use and will not be charged for the capacity they don't use.

- true
- false

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

26) In a job-order costing system that is based on machine-hours, which of the following formulas is correct?

- A) $\text{Predetermined overhead rate} = \text{Actual manufacturing overhead} \div \text{Actual machine-hours}$
- B) $\text{Predetermined overhead rate} = \text{Actual manufacturing overhead} \div \text{Estimated machine-hours}$
- C) $\text{Predetermined overhead rate} = \text{Estimated manufacturing overhead} \div \text{Estimated machine-hours}$
- D) $\text{Predetermined overhead rate} = \text{Estimated manufacturing overhead} \div \text{Actual machine-hours}$

27) Which of the following is the correct formula to compute the predetermined overhead rate?

- A) $\text{Predetermined overhead rate} = \frac{\text{Estimated total units in the allocation base}}{\text{Estimated total manufacturing overhead costs}}$
- B) $\text{Predetermined overhead rate} = \frac{\text{Estimated total manufacturing overhead costs}}{\text{Estimated total units in the allocation base}}$
- C) $\text{Predetermined overhead rate} = \frac{\text{Actual total manufacturing overhead costs}}{\text{Estimated total units in the allocation base}}$
- D) $\text{Predetermined overhead rate} = \frac{\text{Estimated total manufacturing overhead costs}}{\text{Actual total units in the allocation base}}$

28) Assigning manufacturing overhead to a specific job is complicated by all of the below except:

- A) Manufacturing overhead is an indirect cost that is either impossible or difficult to trace to a particular job.
- B) Manufacturing overhead is incurred only to support some jobs.
- C) Manufacturing overhead consists of both variable and fixed costs.
- D) The average cost of actual fixed manufacturing overhead expenses will vary depending on how many units are produced in a period.

29) Which of the following statements about using a plantwide overhead rate based on direct labor is correct?

- A) Using a plantwide overhead rate based on direct labor-hours will ensure that direct labor costs are correctly traced to jobs.
- B) Using a plantwide overhead rate based on direct labor costs will ensure that direct labor costs will be correctly traced to jobs.
- C) It is often overly simplistic and incorrect to assume that direct labor-hours is a company's only manufacturing overhead cost driver.
- D) The labor theory of value ensures that using a plantwide overhead rate based on direct labor will do a reasonably good job of assigning overhead costs to jobs.

30) Which of the following would usually be found on a job cost sheet under a normal cost system?

	Actual direct material cost	Actual manufacturing overhead cost
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D

31) Which of the following statements is not correct concerning multiple overhead rate systems?

A) A multiple overhead rate system is more complex than a system based on a single plantwide overhead rate.

B) A multiple overhead rate system is usually more accurate than a system based on a single plantwide overhead rate.

C) A company may choose to create a separate overhead rate for each of its production departments.

D) In departments that are relatively labor-intensive, their overhead costs should be applied to jobs based on machine-hours rather than on direct labor-hours.

32) Johansen Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for the next year:

Direct materials	\$ 6,000
Direct labor	\$ 20,000
Rent on factory building	\$ 15,000
Sales salaries	\$ 25,000
Depreciation on factory equipment	\$ 8,000
Indirect labor	\$ 12,000
Production supervisor's salary	\$ 15,000

Jameson estimates that 20,000 direct labor-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$2.50 per direct labor-hour
- B) \$2.79 per direct labor-hour
- C) \$3.00 per direct labor-hour
- D) \$4.00 per direct labor-hour

33) The Silver Corporation uses a predetermined overhead rate to apply manufacturing overhead to jobs. The predetermined overhead rate is based on labor cost in Department A and on machine-hours in Department B. At the beginning of the year, the Corporation made the following estimates:

	Department A	Department B
Direct labor cost	\$ 60,000	\$ 40,000
Manufacturing overhead	\$ 90,000	\$ 45,000
Direct labor-hours	6,000	9,000
Machine-hours	2,000	15,000

What predetermined overhead rates would be used in Department A and Department B, respectively?

- A) 67% and \$3.00
- B) 150% and \$5.00
- C) 150% and \$3.00
- D) 67% and \$5.00

34) Purves Corporation is using a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$121,000 and 10,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$113,000 and 10,900 total direct labor-hours during the period. The predetermined overhead rate is closest to:

- A) \$10.37
- B) \$12.10
- C) \$11.10
- D) \$11.30

35) Reamer Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for next year:

Direct materials	\$ 1,000
Direct labor	\$ 3,000
Sales commissions	\$ 4,000
Salary of production supervisor	\$ 2,000
Indirect materials	\$ 400
Advertising expense	\$ 800
Rent on factory equipment	\$ 1,000

Reamer estimates that 500 direct labor-hours and 1,000 machine-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$6.80 per machine-hour
- B) \$6.00 per machine-hour
- C) \$3.00 per machine-hour
- D) \$3.40 per machine-hour

36) Baj Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company considers all of its manufacturing overhead costs to be fixed and it has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$ 534,000
Estimated activity level from the beginning of the year	30,000 machine-h
Actual total fixed manufacturing overhead	\$ 487,000
Actual activity level	27,400 machine-h

The predetermined overhead rate per machine-hour would be closest to:

- A) \$17.80
- B) \$19.49
- C) \$16.23
- D) \$17.77

37) Giannitti Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	72,900
Estimated variable manufacturing overhead	\$3.30 per mach
Estimated total fixed manufacturing overhead	\$838,720

The predetermined overhead rate for the recently completed year was closest to:

- A) \$8.69 per machine-hour
- B) \$9.90 per machine-hour
- C) \$6.75 per machine-hour
- D) \$14.81 per machine-hour

38) Giannitti Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	36,000
Estimated variable manufacturing overhead	\$3.01 per mach
Estimated total fixed manufacturing overhead	\$1,058,040

The predetermined overhead rate for the recently completed year was closest to:

- A) \$29.39 per machine-hour
- B) \$32.40 per machine-hour
- C) \$32.81 per machine-hour
- D) \$3.01 per machine-hour

39) Gilchrist Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 37,200 machine-hours. The estimated variable manufacturing overhead was \$5.94 per machine-hour and the estimated total fixed manufacturing overhead was \$1,028,580. The predetermined overhead rate for the recently completed year was closest to:

- A) \$33.59 per machine-hour
- B) \$32.59 per machine-hour
- C) \$5.94 per machine-hour
- D) \$27.65 per machine-hour

40) Gilchrist Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 79,000 machine-hours. The estimated variable manufacturing overhead was \$7.38 per machine-hour and the estimated total fixed manufacturing overhead was \$2,347,090. The predetermined overhead rate for the recently completed year was closest to:

- A) \$37.09 per machine-hour
- B) \$36.07 per machine-hour
- C) \$7.38 per machine-hour
- D) \$29.71 per machine-hour

41) Dearden Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$144,000, variable manufacturing overhead of \$2.00 per machine-hour, and 60,000 machine-hours. The predetermined overhead rate is closest to:

- A) \$2.40 per machine-hour
- B) \$6.40 per machine-hour
- C) \$4.40 per machine-hour
- D) \$2.00 per machine-hour

42) Longobardi Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 35,700 labor-hours. The estimated variable manufacturing overhead was \$5.93 per labor-hour and the estimated total fixed manufacturing overhead was \$805,392. The actual labor-hours for the year turned out to be 33,200 labor-hours. The predetermined overhead rate for the recently completed year was closest to:

- A) \$28.49 per labor-hour
- B) \$22.56 per labor-hour
- C) \$5.93 per labor-hour
- D) \$30.64 per labor-hour

43) Longobardi Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 46,000 labor-hours. The estimated variable manufacturing overhead was \$6.25 per labor-hour and the estimated total fixed manufacturing overhead was \$1,026,260. The actual labor-hours for the year turned out to be 41,200 labor-hours. The predetermined overhead rate for the recently completed year was closest to:

- A) \$28.56 per labor-hour
- B) \$22.31 per labor-hour
- C) \$6.25 per labor-hour
- D) \$31.16 per labor-hour

44) Valvano Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$440,000, variable manufacturing overhead of \$2.20 per machine-hour, and 50,000 machine-hours. The estimated total manufacturing overhead is closest to:

- A) \$440,000
- B) \$110,000
- C) \$440,002
- D) \$550,000

45) Brothern Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated machine-hours	34,200
Estimated variable manufacturing overhead	\$5.47 per machine-hour
Estimated total fixed manufacturing overhead	\$769,842
Actual machine-hours for the year	30,600

The predetermined overhead rate for the recently completed year was closest to:

- A) \$27.40 per machine-hour
- B) \$27.98 per machine-hour
- C) \$5.47 per machine-hour
- D) \$22.51 per machine-hour

46) Brothern Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated machine-hours	39,000
Estimated variable manufacturing overhead	\$6.76 per machine-hour
Estimated total fixed manufacturing overhead	\$794,430
Actual machine-hours for the year	42,700

The predetermined overhead rate for the recently completed year was closest to:

- A) \$25.37 per machine-hour
- B) \$27.13 per machine-hour
- C) \$6.76 per machine-hour
- D) \$20.37 per machine-hour

47) Steele Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. Steele Corporation has provided the following estimated costs for next year:

Direct materials	\$20,000
Direct labor	\$60,000
Sales commissions	\$80,000
Salary of production supervisor	\$40,000
Indirect materials	\$ 8,000
Advertising expense	\$16,000
Rent on factory equipment	\$20,000

Steele estimates that 10,000 direct labor-hours and 16,000 machine-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$4.25
- B) \$8.00
- C) \$9.00
- D) \$10.25

48) Helland Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	30,000
Total fixed manufacturing overhead cost	\$189,000
Variable manufacturing overhead per direct labor-hour	\$2.50

The predetermined overhead rate is closest to:

- A) \$2.50 per direct labor-hour
- B) \$11.30 per direct labor-hour
- C) \$6.30 per direct labor-hour
- D) \$8.80 per direct labor-hour

49) Laflame Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$357,000
Variable manufacturing overhead per machine-hour	\$3.90

The estimated total manufacturing overhead is closest to:

- A) \$273,000
- B) \$630,000
- C) \$357,004
- D) \$357,000

50) Almaraz Corporation has two manufacturing departments--Forming and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Finishing	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$40,600	\$8,100	\$48,700
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.30	\$ 2.80	

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$6.62
- B) \$4.87
- C) \$4.10
- D) \$7.10

51) Bernson Corporation is using a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$492,000 and 30,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$517,000 and 28,300 total machine-hours during the period. The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$464,120
- B) \$492,000
- C) \$487,703
- D) \$25,000

52) Beat Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	40,000
Total fixed manufacturing overhead cost	\$344,000
Variable manufacturing overhead per machine-hour	\$ 3.90

Recently, Job M759 was completed. It required 60 machine-hours. The amount of overhead applied to Job M759 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$750
- B) \$516
- C) \$984
- D) \$234

53) Mundorf Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	9,000	1,000	10,000
Estimated total fixed manufacturing overhead cost	\$52,200	\$2,400	\$54,600
Estimated variable manufacturing overhead cost per machine-hour	\$ 2.00	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job H
Forming machine-hours	6,100	2,900
Assembly machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job B is closest to:

- A) \$48,555
- B) \$35,490
- C) \$2,988
- D) \$45,567

54) Parido Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	8,000	2,000	10,000
Estimated total fixed manufacturing overhead cost	\$44,000	\$4,200	\$48,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.90	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Casting machine-hours	5,400	2,600
Assembly machine-hours	800	1,200

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job H is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$8,328
- B) \$26,372
- C) \$18,316
- D) \$18,044

55) Juanita Corporation uses a job-order costing system and applies overhead on the basis of direct labor cost. At the end of October, Juanita had one job still in process. The job cost sheet for this job contained the following information:

Direct materials	\$480
Direct labor	\$150
Manufacturing overhead applied	\$600

An additional \$100 of labor was needed in November to complete this job. For this job, how much should Juanita have transferred to finished goods inventory in November when it was completed?

- A) \$1,330
- B) \$500
- C) \$1,230
- D) \$1,730

56) Carradine Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$105,000, variable manufacturing overhead of \$3.00 per machine-hour, and 70,000 machine-hours. The company recently completed Job P233 which required 60 machine-hours. The amount of overhead applied to Job P233 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$90
- B) \$270
- C) \$450
- D) \$180

57) Fusaro Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$684,000
Estimated activity level from the beginning of the year	40,000 machine-h
Actual total fixed manufacturing overhead	\$616,000
Actual activity level	37,700 machine-h

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$644,670
- B) \$684,000
- C) \$68,000
- D) \$580,580

58) Koelsch Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$4,000	\$25,200	\$29,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 2.00	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$12,300	\$8,400
Direct labor cost	\$18,200	\$6,800
Molding machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job K is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$72,561
- B) \$79,817
- C) \$24,187
- D) \$48,374

59) Thach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$665,000, variable manufacturing overhead of \$3.00 per machine-hour, and 70,000 machine-hours. Recently, Job T321 was completed with the following characteristics:

Number of units in the job	30
Total machine-hours	90
Direct materials	\$ 630
Direct labor cost	\$2,880

The unit product cost for Job T321 is closest to:

- A) \$117.00
- B) \$58.50
- C) \$154.50
- D) \$51.50

60) Tancredi Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$22,000	\$11,500	\$33,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job E and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job E	Job J
Direct materials	\$12,800	\$7,000
Direct labor cost	\$17,600	\$7,700
Machining machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. If both jobs are sold during the month, the company's cost of goods sold for the month would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$102,600
- B) \$61,450
- C) \$41,150
- D) \$110,808

61) Session Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	70,000
Total fixed manufacturing overhead cost	\$511,000
Variable manufacturing overhead per direct labor-hour	\$ 2.10

Recently, Job K913 was completed with the following characteristics:

Total direct labor-hours	150
Direct materials	\$ 705
Direct labor cost	\$4,650

The total job cost for Job K913 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$6,060
- B) \$2,115
- C) \$6,765
- D) \$5,355

62) Pebbles Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$9,800	\$6,300	\$16,100
Estimated variable manufacturing overhead cost per machine-hour	\$ 2.00	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job A and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job L
Direct materials	\$15,400	\$9,600
Direct labor cost	\$24,900	\$6,200
Casting machine-hours	1,400	600
Finishing machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job L is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$9,600
- B) \$6,200
- C) \$28,904
- D) \$13,104

63) Stockmaster Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$27,000	\$10,500	\$37,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job C and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job H
Direct materials	\$11,200	\$7,500
Direct labor cost	\$21,000	\$7,800
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job C is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$96,989
- B) \$88,172
- C) \$25,192
- D) \$62,980

64) Atteberry Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$30,000	\$11,200	\$41,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 2.00	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job E and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job E	Job L
Direct materials	\$13,400	\$9,100
Direct labor cost	\$24,500	\$7,000
Machining machine-hours	4,100	1,900
Finishing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job E is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$24,500
- B) \$35,796
- C) \$13,400
- D) \$73,696

65) Coates Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$249,000, variable manufacturing overhead of \$3.80 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job X784 which was recently completed:

Number of units in the job	50
Total machine-hours	250
Direct materials	\$ 470
Direct labor cost	\$5,500

If the company marks up its unit product costs by 30% then the selling price for a unit in Job X784 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$253.87
- B) \$233.87
- C) \$53.97
- D) \$155.22

66) Sutter Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$35,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job T369 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	40
Direct materials	\$ 750
Direct labor cost	\$1,560

If the company marks up its unit product costs by 20% then the selling price for a unit in Job T369 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$324.56
- B) \$304.56
- C) \$277.20
- D) \$50.76

67) Doakes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	60,000
Total fixed manufacturing overhead cost	\$378,000
Variable manufacturing overhead per direct labor-hour	\$ 2.20

Recently, Job M843 was completed with the following characteristics:

Number of units in the job	60
Total direct labor-hours	120
Direct materials	\$ 630
Direct labor cost	\$2,400

The unit product cost for Job M843 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$33.75
- B) \$67.50
- C) \$27.50
- D) \$50.50

68) Placker Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$155,000, variable manufacturing overhead of \$3.40 per machine-hour, and 50,000 machine-hours. Recently, Job A881 was completed with the following characteristics:

Total machine-hours	100
Direct materials	\$ 645
Direct labor cost	\$2,300

The total job cost for Job A881 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$3,595
- B) \$2,945
- C) \$2,950
- D) \$1,295

69) Tomey Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	18,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$99,000	\$70,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.70

During the current month the company started and finished Job T617. The following data were recorded for this job:

Job T617:	Forming	Finishing
Machine-hours	90	20
Direct labor-hours	30	60

Direct materials	\$940	\$ 350
Direct labor cost	\$960	\$1,920

The total job cost for Job T617 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$5,604
- B) \$2,584
- C) \$684
- D) \$3,020

70) Molash Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$9,400	\$8,100	\$17,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Direct materials	\$14,400	\$7,100
Direct labor cost	\$23,500	\$6,700
Machining machine-hours	1,400	600
Assembly machine-hours	1,200	1,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job L is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$40,320
- B) \$41,933
- C) \$13,440
- D) \$26,880

71) Columbo Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$110,500	\$78,300
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job A948. The following data were recorded for this job:

Job A948:	Forming	Finishing
Machine-hours	70	30
Direct labor-hours	10	50
Direct materials	\$650	\$ 330
Direct labor cost	\$380	\$1,900

If the company marks up its manufacturing costs by 40% then the selling price for Job A948 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$6,197.80
- B) \$1,770.80
- C) \$4,427.00
- D) \$6,818.00

72) Lotz Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	2,000	8,000	10,000
Estimated total fixed manufacturing overhead cost	\$10,200	\$19,200	\$29,400
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.20	\$ 2.20	

During the most recent month, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$14,400	\$7,100
Direct labor cost	\$22,500	\$6,600
Casting machine-hours	1,400	600
Finishing machine-hours	3,200	4,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job F is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$30,220
- B) \$90,660
- C) \$60,440
- D) \$96,100

73) Ashe Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,700	\$9,200	\$13,900
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Machining machine-hours	700	300
Customizing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job K is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$11,760
- B) \$1,740
- C) \$13,716
- D) \$13,500

74) Boward Corporation has two production departments, Milling and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Assembly
Machine-hours	18,000	12,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$120,600	\$76,300
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T818. The following data were recorded for this job:

Job T818:	Milling	Assembly
Machine-hours	50	30
Direct labor-hours	10	40

The total amount of overhead applied in both departments to Job T818 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,651
- B) \$608
- C) \$435
- D) \$1,043

75) Malakan Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	18,000	11,000
Direct labor-hours	2,000	9,000
Total fixed manufacturing overhead cost	\$102,600	\$96,300
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job K368. The following data were recorded for this job:

Job K368:	Machining	Finishing
Machine-hours	80	30
Direct labor-hours	20	40

The amount of overhead applied in the Machining Department to Job K368 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$856.00
- B) \$168.00
- C) \$624.00
- D) \$140,400.00

76) Mahon Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	19,200	17,200
Direct labor-hours	7,600	8,600
Total fixed manufacturing overhead cost	\$117,120	\$86,000
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job T138. The following data were recorded for this job:

Job T138:	Casting	Customizing
Machine-hours	70	40
Direct labor-hours	14	60

The amount of overhead applied in the Customizing Department to Job T138 is closest to:
(Round your intermediate calculations to 2 decimal places.)

- A) \$688.00
- B) \$116,960.00
- C) \$816.00
- D) \$344.00

77) Mahon Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	18,000	14,000

Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$124,200	\$68,600
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job T138. The following data were recorded for this job:

Job T138:	Casting	Customizing
Machine-hours	70	30
Direct labor-hours	10	60

The amount of overhead applied in the Customizing Department to Job T138 is closest to:
(Round your intermediate calculations to 2 decimal places.)

- A) \$588.00
- B) \$95,200.00
- C) \$816.00
- D) \$228.00

78) Marioni Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$37,100	\$9,000	\$46,100
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job H
Forming machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job B is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$6,720
- B) \$33,600
- C) \$40,320
- D) \$39,480

79) Bassett Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	16,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$118,400	\$87,200
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

The predetermined overhead rate for the Milling Department is closest to:

- A) \$19.00 per machine-hour
- B) \$2.10 per machine-hour
- C) \$9.50 per machine-hour
- D) \$7.40 per machine-hour

80) Fatzinger Corporation has two production departments, Milling and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Assembly
Machine-hours	20,000	14,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$132,000	\$57,400
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.40

The predetermined overhead rate for the Assembly Department is closest to:

- A) \$8.20 per direct labor-hour
- B) \$3.40 per direct labor-hour
- C) \$4.06 per direct labor-hour
- D) \$11.60 per direct labor-hour

81) Swango Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	19,000	11,000
Direct labor-hours	1,000	8,000
Total fixed manufacturing overhead cost	\$138,700	\$86,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$24,000
- B) \$110,400
- C) \$86,400
- D) \$60,379

82) Tarrant Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$5,700	\$11,200	\$16,900
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.30	\$ 2.90	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Casting Department is closest to:

- A) \$5.70
- B) \$1.30
- C) \$5.96
- D) \$7.00

83) Prayer Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	19,000	13,000
Direct labor-hours	1,000	8,000
Total fixed manufacturing overhead cost	\$110,200	\$68,800

Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$148,200
- B) \$110,200
- C) \$38,000
- D) \$299,725

84) Camm Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$12,600	\$4,600	\$17,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.50	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.50
- B) \$2.30
- C) \$4.80
- D) \$5.46

85) Huang Aerospace Corporation manufactures aviation control panels in two departments, Fabrication and Assembly. In the Fabrication department, Huang uses a predetermined overhead rate of \$30 per machine-hour. In the Assembly department, Huang uses a predetermined overhead rate of \$12 per direct labor-hour. During the current year, Job #X2984 incurred the following number of hours in each department:

	Fabrication	Assembly
Machine-hours	40	12
Direct labor-hours	3	25

What is the total amount of manufacturing overhead that Huang should have applied to Job #X2984 during the current year?

- A) \$1,200
- B) \$1,500
- C) \$1,560
- D) \$1,734

86) Sargent Corporation applies overhead cost to jobs on the basis of 90% of direct labor cost. If Job 210 shows \$18,810 of manufacturing overhead cost applied, how much was the direct labor cost on the job?

- A) \$20,900
- B) \$35,739
- C) \$16,929
- D) \$18,810

87) Sargent Corporation applies overhead cost to jobs on the basis of 80% of direct labor cost. If Job 210 shows \$10,000 of manufacturing overhead cost applied, how much was the direct labor cost on the job?

- A) \$12,500
- B) \$11,000
- C) \$8,000
- D) \$10,000

88) Kreuzer Corporation is using a predetermined overhead rate of \$22.30 per machine-hour that was based on estimated total fixed manufacturing overhead of \$446,000 and 20,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$409,000 and 18,200 total machine-hours during the period. The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

- A) \$446,000
- B) \$37,000
- C) \$372,190
- D) \$405,860

89) Kavin Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Predetermined overhead rate	\$ 23.60 per machine-hour
Estimated total fixed manufacturing overhead from the beginning of the year	\$708,000
Estimated activity level from the beginning of the year	30,000 machine-hours
Actual total fixed manufacturing overhead	\$752,000
Actual activity level	28,100 machine-hours

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

- A) \$663,160
- B) \$708,000
- C) \$44,000
- D) \$704,373

90) Job 910 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$2,431
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Direct labor-hours	70 labor-hours
Direct labor wage rate	\$ 22 per labor-hour
Machine-hours	139 machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$23 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 910 would be:

- A) \$3,971
- B) \$8,008
- C) \$4,492
- D) \$7,168

91) Job 910 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$3,193
Direct labor-hours	21 labor-hours
Direct labor wage rate	\$ 12 per labor-hour
Machine-hours	166 machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$15 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 910 would be:

- A) \$3,220
- B) \$3,760
- C) \$5,935
- D) \$3,445

92) Grib Corporation uses a predetermined overhead rate based on direct labor cost to apply manufacturing overhead to jobs. The predetermined overhead rates for the year are 200% of direct labor cost for Department A and 50% of direct labor cost for Department B. Job 436, started and completed during the year, was charged with the following costs:

	Department A	Department B
Direct materials	\$50,000	\$10,000
Direct labor	?	\$60,000

Manufacturing overhead

\$80,000

?

The total manufacturing cost assigned to Job 436 was:

- A) \$360,000
- B) \$390,000
- C) \$270,000
- D) \$480,000

93) The following data have been recorded for recently completed Job 450 on its job cost sheet. Direct materials cost was \$2,057. A total of 37 direct labor-hours and 194 machine-hours were worked on the job. The direct labor wage rate is \$24 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$33 per machine-hour. The total cost for the job on its job cost sheet would be:

- A) \$6,303
- B) \$6,722
- C) \$9,347
- D) \$11,492

94) The following data have been recorded for recently completed Job 450 on its job cost sheet. Direct materials cost was \$3,044. A total of 46 direct labor-hours and 104 machine-hours were worked on the job. The direct labor wage rate is \$15 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$13 per machine-hour. The total cost for the job on its job cost sheet would be:

- A) \$4,332
- B) \$3,734
- C) \$3,072
- D) \$5,086

95) Dejarnette Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$416,000
Variable manufacturing overhead per machine-hour	\$ 3.10

The estimated total manufacturing overhead is closest to:

- A) \$416,003
- B) \$248,000
- C) \$664,000
- D) \$416,000

96) Dejarnette Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$416,000
Variable manufacturing overhead per machine-hour	\$ 3.10

The predetermined overhead rate is closest to:

- A) \$8.30 per machine-hour
- B) \$11.40 per machine-hour
- C) \$5.20 per machine-hour
- D) \$3.10 per machine-hour

97) Odonnel Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$36,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 10,000 direct labor-hours. The estimated total manufacturing overhead is closest to:

- A) \$64,000
- B) \$36,000
- C) \$28,000
- D) \$36,003

98) Odonnel Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$36,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 10,000 direct labor-hours. The predetermined overhead rate is closest to:

- A) \$2.80 per direct labor-hour
- B) \$6.40 per direct labor-hour
- C) \$3.60 per direct labor-hour
- D) \$9.20 per direct labor-hour

99) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$39,200	\$6,600	\$45,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$14,800	\$8,300
Direct labor cost	\$22,000	\$8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$4.00
- B) \$7.50
- C) \$4.58
- D) \$6.54

100) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$39,200	\$6,600	\$45,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$14,800	\$8,300
Direct labor cost	\$22,000	\$8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job B is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$31,392
- B) \$27,480
- C) \$39,240
- D) \$7,848

101) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$39,200	\$6,600	\$45,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$14,800	\$8,300
Direct labor cost	\$22,000	\$8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job G is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$14,388
- B) \$26,160
- C) \$11,772
- D) \$18,320

102) Housholder Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$310,000
Estimated activity level from the beginning of the year	20,000 machine-h
Actual total fixed manufacturing overhead	\$338,000
Actual activity level	18,300 machine-h

The predetermined overhead rate is closest to:

- A) \$18.47
- B) \$16.94
- C) \$16.90
- D) \$15.50

103) Housholder Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$310,000
Estimated activity level from the beginning of the year	20,000 machine-h
Actual total fixed manufacturing overhead	\$338,000
Actual activity level	18,300 machine-h

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$28,000
- B) \$309,270
- C) \$310,000
- D) \$283,650

104) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours.

The estimated total manufacturing overhead is closest to:

- A) \$90,000
- B) \$275,000
- C) \$185,000
- D) \$90,004

105) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours. The predetermined overhead rate is closest to:

- A) \$1.80 per direct labor-hour
- B) \$5.50 per direct labor-hour
- C) \$9.20 per direct labor-hour
- D) \$3.70 per direct labor-hour

106) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours. The amount of overhead applied to Job M800 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$270
- B) \$1,380
- C) \$825
- D) \$555

107) Krier Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$738,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$792,000 and 31,500 total direct labor-hours during the period. The predetermined overhead rate is closest to:

- A) \$26.40
- B) \$25.14
- C) \$23.43
- D) \$24.60

108) Krier Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$738,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$792,000 and 31,500 total direct labor-hours during the period. The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$831,600
- B) \$54,000
- C) \$774,900
- D) \$738,000

109) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The estimated total manufacturing overhead is closest to:

- A) \$168,000
- B) \$312,002
- C) \$312,000
- D) \$480,000

110) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The predetermined overhead rate is closest to:

- A) \$8.10 per machine-hour
- B) \$2.10 per machine-hour
- C) \$3.90 per machine-hour
- D) \$6.00 per machine-hour

111) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The amount of overhead applied to Job T629 is closest to:

- A) \$1,620
- B) \$780
- C) \$1,200
- D) \$420

112) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$4,000

The estimated total manufacturing overhead is closest to:

- A) \$120,000
- B) \$96,003
- C) \$96,000
- D) \$216,000

113) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$4,000

The predetermined overhead rate is closest to:

- A) \$2.40 per direct labor-hour
- B) \$3.00 per direct labor-hour
- C) \$8.40 per direct labor-hour
- D) \$5.40 per direct labor-hour

114) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$4,000

The amount of overhead applied to Job P951 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$840
- B) \$300
- C) \$540
- D) \$240

115) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	54,000
Total fixed manufacturing overhead cost	\$259,200
Variable manufacturing overhead per direct labor-hour	\$ 6.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	25
Total direct labor-hours	100

Direct materials	\$ 640
Direct labor cost	\$5,400

The total job cost for Job P951 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$6,480
- B) \$6,040
- C) \$1,720
- D) \$7,120

116) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$4,000

The total job cost for Job P951 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$4,540
- B) \$4,755
- C) \$1,295
- D) \$5,295

117) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	96,000
Total fixed manufacturing overhead cost	\$499,200

Variable manufacturing overhead per direct labor-hour \$ 2.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	100
Total direct labor-hours	100
Direct materials	\$ 640
Direct labor cost	\$9,600

The unit product cost for Job P951 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$720.00
- B) \$109.60
- C) \$9.60
- D) \$200.60

118) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$4,000

The unit product cost for Job P951 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$237.75
- B) \$264.75
- C) \$64.75
- D) \$52.95

119) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$9,000

The estimated total manufacturing overhead is closest to:

- A) \$272,000
- B) \$160,000
- C) \$432,000
- D) \$160,003

120) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$9,000

The predetermined overhead rate is closest to:

- A) \$8.80 per direct labor-hour
- B) \$2.00 per direct labor-hour
- C) \$3.40 per direct labor-hour
- D) \$5.40 per direct labor-hour

121) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$9,000

The amount of overhead applied to Job A578 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$500
- B) \$1,350
- C) \$2,200
- D) \$850

122) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$9,000

The total job cost for Job A578 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$11,065
- B) \$10,350
- C) \$2,065
- D) \$9,715

123) Spang Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	20,000
Total fixed manufacturing overhead cost	\$176,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job P505 was completed with the following characteristics:

Total machine-hours	200
Direct materials	\$ 540
Direct labor cost	\$7,200

The amount of overhead applied to Job P505 is closest to:

- A) \$2,200
- B) \$1,760
- C) \$2,640
- D) \$440

124) Spang Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	20,000
Total fixed manufacturing overhead cost	\$176,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job P505 was completed with the following characteristics:

Total machine-hours	200
Direct materials	\$ 540
Direct labor cost	\$7,200

The total job cost for Job P505 is closest to:

- A) \$9,400
- B) \$9,940
- C) \$7,740
- D) \$2,740

125) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$17,000	\$4,500	\$21,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 2.00	\$ 4.00	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$16,200	\$9,500
Direct labor cost	\$22,900	\$9,900
Molding machine-hours	2,700	1,300
Finishing machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job M is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$12,730
- B) \$9,900
- C) \$32,130
- D) \$9,500

126) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$19,600	\$2,400	\$22,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$13,600	\$7,500
Direct labor cost	\$20,700	\$7,400
Molding machine-hours	2,700	1,300
Finishing machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job M is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$10,830
- B) \$7,400
- C) \$25,730
- D) \$7,500

127) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	3,250	2,250	5,500
Estimated total fixed manufacturing overhead cost	\$27,000	\$4,700	\$31,700
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.00	\$ 2.00	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$15,900	\$9,700
Direct labor cost	\$23,000	\$9,500
Molding machine-hours	1,250	2,000
Finishing machine-hours	1,750	500

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$60,410
- B) \$78,533
- C) \$99,860
- D) \$18,123

128) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$19,600	\$2,400	\$22,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$13,600	\$7,500
Direct labor cost	\$20,700	\$7,400
Molding machine-hours	2,700	1,300
Finishing machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$51,970
- B) \$72,758
- C) \$80,034
- D) \$20,788

129) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$2,720

The estimated total manufacturing overhead is closest to:

- A) \$665,000
- B) \$497,002
- C) \$497,000
- D) \$168,000

130) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$2,720

The predetermined overhead rate is closest to:

- A) \$11.90 per direct labor-hour
- B) \$7.10 per direct labor-hour
- C) \$9.50 per direct labor-hour
- D) \$2.40 per direct labor-hour

131) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$2,720

The amount of overhead applied to Job T498 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$568
- B) \$192
- C) \$760
- D) \$952

132) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$2,720

The total job cost for Job T498 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$4,430
- B) \$3,670
- C) \$1,710
- D) \$3,480

133) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$2,720

The unit product cost for Job T498 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$55.38
- B) \$42.75
- C) \$91.75
- D) \$110.75

134) Nielsen Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,700	\$10,800	\$15,500

Estimated variable manufacturing overhead cost per machine-hour \$ 1.20 \$ 2.20

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$13,000	\$7,400
Direct labor cost	\$20,400	\$8,800
Machining machine-hours	700	300
Assembly machine-hours	1,600	2,400

Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job F is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$13,000
- B) \$20,400
- C) \$45,130
- D) \$11,730

135) Nielsen Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,700	\$10,800	\$15,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.20	\$ 2.20	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$13,000	\$7,400
Direct labor cost	\$20,400	\$8,800
Machining machine-hours	700	300
Assembly machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job M is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$46,154
- B) \$41,958
- C) \$29,970
- D) \$11,988

136) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$33,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$5,320

The amount of overhead applied to Job K332 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$812
- B) \$350
- C) \$462
- D) \$1,162

137) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$33,000

Variable manufacturing overhead per direct labor-hour \$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$5,320

The total job cost for Job K332 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$5,775
- B) \$6,132
- C) \$6,587
- D) \$1,267

138) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$33,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$5,320

The unit product cost for Job K332 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$94.10
- B) \$18.10
- C) \$82.50
- D) \$47.05

139) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

The estimated total manufacturing overhead is closest to:

- A) \$330,000
- B) \$162,000
- C) \$168,000
- D) \$162,003

140) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

The predetermined overhead rate is closest to:

- A) \$5.50 per direct labor-hour
- B) \$8.30 per direct labor-hour
- C) \$2.80 per direct labor-hour
- D) \$2.70 per direct labor-hour

141) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

The amount of overhead applied to Job K818 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$135
- B) \$140
- C) \$415
- D) \$275

142) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

The total job cost for Job K818 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,675
- B) \$2,595
- C) \$1,195
- D) \$2,320

143) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

The unit product cost for Job K818 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$51.90
- B) \$259.50
- C) \$232.00
- D) \$119.50

144) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours. Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$1,400

If the company marks up its unit product costs by 40% then the selling price for a unit in Job K818 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$363.30
- B) \$103.80
- C) \$383.30
- D) \$324.80

145) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$1,050

The estimated total manufacturing overhead is closest to:

- A) \$315,000
- B) \$252,000
- C) \$252,002
- D) \$63,000

146) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$1,050

The predetermined overhead rate is closest to:

- A) \$12.60 per machine-hour
- B) \$10.50 per machine-hour
- C) \$8.40 per machine-hour
- D) \$2.10 per machine-hour

147) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,400
Total fixed manufacturing overhead cost	\$425,600
Variable manufacturing overhead per machine-hour	\$5

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	20
Direct materials	\$590
Direct labor cost	\$1,180

The amount of overhead applied to Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$380.00
- B) \$425.60
- C) \$466.00
- D) \$76.00

148) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30

Direct materials	\$ 675
Direct labor cost	\$1,050

The amount of overhead applied to Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$315
- B) \$252
- C) \$378
- D) \$63

149) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,500
Total fixed manufacturing overhead cost	\$610,000
Variable manufacturing overhead per machine-hour	\$ 6

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 690
Direct labor cost	\$1,370

The total job cost for Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$2,150
- B) \$2,060
- C) \$1,470
- D) \$2,840

150) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000

Variable manufacturing overhead per machine-hour \$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$1,050

The total job cost for Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,365
- B) \$1,725
- C) \$990
- D) \$2,040

151) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	32,600
Total fixed manufacturing overhead cost	\$195,600
Variable manufacturing overhead per machine-hour	\$ 4

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 550
Direct labor cost	\$1,100

The unit product cost for Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$85.00
- B) \$65.00
- C) \$165.00
- D) \$195.00

152) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$1,050

The unit product cost for Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$99.00
- B) \$68.00
- C) \$172.50
- D) \$204.00

153) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	32,700
Total fixed manufacturing overhead cost	\$294,300
Variable manufacturing overhead per machine-hour	\$ 2.00

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	20
Direct materials	\$ 545
Direct labor cost	\$1,090

If the company marks up its unit product costs by 40% then the selling price for a unit in Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$74.20
- B) \$209.00
- C) \$259.70
- D) \$228.90

154) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$1,050

If the company marks up its unit product costs by 40% then the selling price for a unit in Job T687 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$81.60
- B) \$305.60
- C) \$285.60
- D) \$241.50

155) Ronson Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$27,500	\$10,500	\$38,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job C and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job G
Direct materials	\$10,600	\$6,800
Direct labor cost	\$23,700	\$7,900
Casting machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job C is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$32,130
- B) \$11,900
- C) \$20,230
- D) \$20,520

156) Ronson Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$27,500	\$10,500	\$38,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job C and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job G
Direct materials	\$10,600	\$6,800
Direct labor cost	\$23,700	\$7,900
Casting machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job G is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$42,070
- B) \$27,370
- C) \$6,800
- D) \$7,900

157) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$9,000

The amount of overhead applied to Job M598 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$930
- B) \$4,200
- C) \$2,340
- D) \$3,270

158) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$9,000

The total job cost for Job M598 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$12,270
- B) \$9,645
- C) \$3,915
- D) \$12,915

159) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$9,000

The unit product cost for Job M598 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$65.25
- B) \$160.75
- C) \$215.25
- D) \$43.05

160) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$9,000

If the company marks up its unit product costs by 40% then the selling price for a unit in Job M598 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$321.35
- B) \$225.05
- C) \$86.10
- D) \$301.35

161) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,640

The predetermined overhead rate is closest to:

- A) \$2.90 per machine-hour
- B) \$2.00 per machine-hour
- C) \$4.90 per machine-hour
- D) \$6.90 per machine-hour

162) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,640

The amount of overhead applied to Job P978 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$232
- B) \$160
- C) \$392
- D) \$552

163) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,640

The total job cost for Job P978 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$3,140
- B) \$892
- C) \$3,532
- D) \$3,032

164) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,640

The unit product cost for Job P978 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$176.60
- B) \$157.00
- C) \$44.60
- D) \$44.15

165) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,640

If the company marks up its unit product costs by 30% then the selling price for a unit in Job P978 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$249.58
- B) \$229.58
- C) \$204.10
- D) \$52.98

166) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$1,840

The predetermined overhead rate is closest to:

- A) \$8.80 per machine-hour
- B) \$6.50 per machine-hour
- C) \$2.30 per machine-hour
- D) \$4.20 per machine-hour

167) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$1,840

The amount of overhead applied to Job M825 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$184
- B) \$520
- C) \$704
- D) \$336

168) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$1,840

The total job cost for Job M825 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$2,360
- B) \$2,505
- C) \$1,185
- D) \$3,025

169) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80

Direct materials	\$ 665
Direct labor cost	\$1,840

The unit product cost for Job M825 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$37.81
- B) \$59.25
- C) \$151.25
- D) \$125.25

170) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$1,840

If the company marks up its unit product costs by 40% then the selling price for a unit in Job M825 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$60.50
- B) \$175.35
- C) \$211.75
- D) \$231.75

171) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$2,240

The amount of overhead applied to Job X455 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$176
- B) \$792
- C) \$968
- D) \$616

172) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$2,240

The total job cost for Job X455 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$3,972
- B) \$1,732
- C) \$3,180
- D) \$3,032

173) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
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Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$2,240

The unit product cost for Job X455 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$86.60
- B) \$159.00
- C) \$198.60
- D) \$49.65

174) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$433,100, variable manufacturing overhead of \$2.20 per machine-hour, and 61,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	10
Total machine-hours	80
Direct materials	\$ 770
Direct labor cost	\$1,540

If the company marks up its unit product costs by 25% then the selling price for a unit in Job X455 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$406.75
- B) \$305.40
- C) \$76.35
- D) \$381.75

175) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80

Direct materials	\$ 940
Direct labor cost	\$2,240

If the company marks up its unit product costs by 20% then the selling price for a unit in Job X455 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$258.32
- B) \$190.80
- C) \$39.72
- D) \$238.32

176) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,160

The amount of overhead applied to Job A496 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,256
- B) \$632
- C) \$944
- D) \$312

177) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500

Direct labor cost \$2,160

The total job cost for Job A496 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$2,660
- B) \$3,104
- C) \$3,604
- D) \$1,444

178) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$468,000, variable manufacturing overhead of \$2.10 per machine-hour, and 72,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	10
Total machine-hours	80
Direct materials	\$ 930
Direct labor cost	\$1,860

The unit product cost for Job A496 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$279.00
- B) \$34.88
- C) \$43.48
- D) \$347.80

179) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,160

The unit product cost for Job A496 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$133.00
- B) \$72.20
- C) \$45.05
- D) \$180.20

180) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$2,160

If the company marks up its unit product costs by 40% then the selling price for a unit in Job A496 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$186.20
- B) \$272.28
- C) \$72.08
- D) \$252.28

181) Halbur Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$33,600	\$10,000	\$43,600

Estimated variable manufacturing overhead cost per machine-hour \$ 1.80 \$ 2.80

During the most recent month, the company started and completed two jobs--Job C and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job J
Direct materials	\$11,300	\$8,100
Direct labor cost	\$18,500	\$6,300
Machining machine-hours	4,100	1,900
Customizing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job J is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$28,208
- B) \$18,748
- C) \$12,464
- D) \$15,744

182) Halbur Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$33,600	\$10,000	\$43,600
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job C and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job J
Direct materials	\$11,300	\$8,100
Direct labor cost	\$18,500	\$6,300
Machining machine-hours	4,100	1,900
Customizing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job C is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$18,500
- B) \$67,192
- C) \$11,300
- D) \$37,392

183) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$710
Direct labor cost	\$500

The estimated total manufacturing overhead is closest to:

- A) \$475,000
- B) \$285,000
- C) \$190,000
- D) \$285,004

184) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$710
Direct labor cost	\$500

The predetermined overhead rate is closest to:

- A) \$13.30 per direct labor-hour
- B) \$3.80 per direct labor-hour
- C) \$9.50 per direct labor-hour
- D) \$5.70 per direct labor-hour

185) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$710
Direct labor cost	\$500

The amount of overhead applied to Job P513 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$76
- B) \$190
- C) \$266
- D) \$114

186) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
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Total fixed manufacturing overhead cost	\$285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$710
Direct labor cost	\$500

The total job cost for Job P513 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$690
- B) \$900
- C) \$1,400
- D) \$1,210

187) Kubes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.50 per direct labor-hour, and 30,000 direct labor-hours. The company has provided the following data concerning Job A477 which was recently completed:

Total direct labor-hours	100
Direct materials	\$ 520
Direct labor cost	\$2,800

The amount of overhead applied to Job A477 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$300
- B) \$350
- C) \$650
- D) \$1,000

188) Kubes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.50 per direct labor-hour, and 30,000 direct labor-hours. The company has provided the following data concerning Job A477 which was recently completed:

Total direct labor-hours	100
Direct materials	\$ 520
Direct labor cost	\$2,800

The total job cost for Job A477 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$3,450
- B) \$1,170
- C) \$3,970
- D) \$3,320

189) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40

Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

The estimated total manufacturing overhead for the Assembly Department is closest to:

- A) \$77,600
- B) \$101,600
- C) \$56,674
- D) \$24,000

190) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

The predetermined overhead rate for the Assembly Department is closest to:

- A) \$3.00 per direct labor-hour
- B) \$12.70 per direct labor-hour
- C) \$9.70 per direct labor-hour
- D) \$5.35 per direct labor-hour

191) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

The amount of overhead applied in the Assembly Department to Job T288 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$508.00
- B) \$101,600.00
- C) \$388.00
- D) \$120.00

192) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

The total amount of overhead applied in both departments to Job T288 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$508
- B) \$672
- C) \$1,688
- D) \$1,180

193) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

The total job cost for Job T288 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$672
- B) \$2,088
- C) \$2,302
- D) \$4,390

194) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$129,200	\$77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	

Variable manufacturing overhead per direct labor-hour \$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$730	\$ 380
Direct labor cost	\$900	\$1,200

If the company marks up its manufacturing costs by 20% then the selling price for Job T288 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$4,390.00
- B) \$878.00
- C) \$5,268.00
- D) \$5,795.00

195) Macnamara Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$8,800	\$13,600
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$11,500	\$9,000
Direct labor cost	\$18,400	\$7,400
Casting machine-hours	700	300
Finishing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job F is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$4,620
- B) \$12,780
- C) \$12,420
- D) \$8,160

196) Macnamara Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$8,800	\$13,600
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$11,500	\$9,000
Direct labor cost	\$18,400	\$7,400
Casting machine-hours	700	300
Finishing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job M is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$15,310
- B) \$47,767
- C) \$30,620
- D) \$45,930

197) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$96,900	\$65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$840	\$ 350
Direct labor cost	\$750	\$1,000

The predetermined overhead rate for the Forming Department is closest to:

- A) \$5.70 per machine-hour
- B) \$7.70 per machine-hour
- C) \$2.00 per machine-hour
- D) \$18.70 per machine-hour

198) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$96,900	\$65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$840	\$ 350
Direct labor cost	\$750	\$1,000

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$9.40 per direct labor-hour
- B) \$13.00 per direct labor-hour
- C) \$3.60 per direct labor-hour
- D) \$5.35 per direct labor-hour

199) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$96,900	\$65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$840	\$ 350
Direct labor cost	\$750	\$1,000

The total job cost for Job M381 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$2,206
- B) \$616
- C) \$4,076
- D) \$1,870

200) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$136,800
- B) \$34,200
- C) \$171,000
- D) \$359,100

201) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

The predetermined overhead rate for the Machining Department is closest to:

- A) \$7.20 per machine-hour
- B) \$9.00 per machine-hour
- C) \$21.38 per machine-hour
- D) \$1.80 per machine-hour

202) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

The amount of overhead applied in the Machining Department to Job K928 is closest to:

- A) \$783.00
- B) \$810.00
- C) \$162.00
- D) \$171,000.00

203) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

The total amount of overhead applied in both departments to Job K928 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,405
- B) \$2,000
- C) \$810
- D) \$595

204) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	

Variable manufacturing overhead per direct labor-hour \$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

The total job cost for Job K928 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$810
- B) \$4,275
- C) \$2,060
- D) \$2,215

205) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$136,800	\$69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50

Direct materials	\$775	\$ 415
Direct labor cost	\$630	\$1,050

If the company marks up its manufacturing costs by 20% then the selling price for Job K928 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$4,275.00
- B) \$5,643.00
- C) \$5,130.00
- D) \$855.00

206) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$23,400	\$28,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$12,000	\$7,700
Direct labor cost	\$20,700	\$6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$90,707
- B) \$27,487
- C) \$82,461
- D) \$54,974

207) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$23,400	\$28,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$12,000	\$7,700
Direct labor cost	\$20,700	\$6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job J is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$71,983
- B) \$65,439
- C) \$43,626
- D) \$21,813

208) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$23,400	\$28,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$12,000	\$7,700
Direct labor cost	\$20,700	\$6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$27,595
- B) \$87,752
- C) \$82,785
- D) \$55,190

209) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$4,800	\$23,400	\$28,200

Estimated variable manufacturing overhead cost per machine-hour \$ 1.10 \$ 2.50

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$12,000	\$7,700
Direct labor cost	\$20,700	\$6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job J is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$65,115
- B) \$67,720
- C) \$21,705
- D) \$43,410

210) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$113,400	\$64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$655	\$ 305
Direct labor cost	\$400	\$1,200

The amount of overhead applied in the Milling Department to Job A319 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$142,200.00
- B) \$552.00
- C) \$96.00
- D) \$474.00

211) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$113,400	\$64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$655	\$ 305
Direct labor cost	\$400	\$1,200

The amount of overhead applied in the Customizing Department to Job A319 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$234.00
- B) \$786.00
- C) \$552.00
- D) \$91,700.00

212) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	25,000	10,000
Direct labor-hours	15,000	4,000
Total fixed manufacturing overhead cost	\$132,500	\$22,000
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$630	\$170
Direct labor cost	\$740	\$510

If the company marks up its manufacturing costs by 10% then the selling price for Job A319 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$3,537
- B) \$3,215
- C) \$2,923
- D) \$292

213) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$113,400	\$64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$655	\$ 305
Direct labor cost	\$400	\$1,200

If the company marks up its manufacturing costs by 20% then the selling price for Job A319 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$5,042.00
- B) \$4,584.00
- C) \$3,820.00
- D) \$764.00

214) Sanderlin Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing	\$26,500	\$13,500	\$40,000

overhead cost

Estimated variable manufacturing overhead cost per machine-hour \$ 2.00 \$ 3.00

During the most recent month, the company started and completed two jobs--Job C and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$12,500	\$8,200
Direct labor cost	\$20,200	\$6,400
Machining machine-hours	3,400	1,600
Finishing machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job L is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$29,900
- B) \$11,680
- C) \$28,780
- D) \$17,100

215) Sanderlin Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 26,500	\$ 13,500	\$ 40,000
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job C and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 12,500	\$ 8,200
Direct labor cost	\$ 20,200	\$ 6,400
Machining machine-hours	3,400	1,600

Finishing machine-hours 2,000 3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. The calculated selling price for Job C is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$87,666
- B) \$68,920
- C) \$13,784
- D) \$82,704

216) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$102,000	\$61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$720	\$ 380
Direct labor cost	\$900	\$1,500

The total amount of overhead applied in both departments to Job T268 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$616
- B) \$715
- C) \$2,046
- D) \$1,331

217) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$102,000	\$61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$720	\$ 380
Direct labor cost	\$900	\$1,500

The total job cost for Job T268 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$2,595
- B) \$616
- C) \$4,831
- D) \$2,236

218) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$102,000	\$61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$720	\$ 380
Direct labor cost	\$900	\$1,500

If the company marks up its manufacturing costs by 40% then the selling price for Job T268 would be closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,932.40
- B) \$6,763.40
- C) \$4,831.00
- D) \$7,440.00

219) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing	\$16,500	\$20,300	\$36,800

Customizing machine-hours 2,800 4,200

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job H is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$19,136
- B) \$5,940
- C) \$30,888
- D) \$24,948

221) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$16,500	\$20,300	\$36,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$12,800	\$6,700
Direct labor cost	\$24,300	\$7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job A is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$14,400
- B) \$15,120
- C) \$28,512
- D) \$29,520

222) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$16,500	\$20,300	\$36,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$12,800	\$6,700
Direct labor cost	\$24,300	\$7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job H is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$22,680
- B) \$30,888
- C) \$29,880
- D) \$7,200

223) Tiff Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	10,000
Direct labor-hours	1,000	5,000

Total fixed manufacturing overhead cost	\$129,200	\$46,500
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job P131. The following data were recorded for this job:

Job P131:	Casting	Assembly
Machine-hours	90	20
Direct labor-hours	20	60

The predetermined overhead rate for the Casting Department is closest to:

- A) \$9.40 per machine-hour
- B) \$7.60 per machine-hour
- C) \$1.80 per machine-hour
- D) \$31.96 per machine-hour

224) Tiff Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	10,000
Direct labor-hours	1,000	5,000
Total fixed manufacturing overhead cost	\$129,200	\$46,500
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job P131. The following data were recorded for this job:

Job P131:	Casting	Assembly
Machine-hours	90	20
Direct labor-hours	20	60

The amount of overhead applied in the Assembly Department to Job P131 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$228.00
- B) \$558.00
- C) \$65,500.00
- D) \$786.00

225) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	24,000	25,000
Direct labor-hours	20,000	7,000
Total fixed manufacturing overhead cost	\$79,200	\$31,500
Variable manufacturing overhead per machine-hour	\$2.00	
Variable manufacturing overhead per direct labor-hour		\$3.50

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	70	40
Direct labor-hours	60	20

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$127,200
- B) \$79,200
- C) \$48,000
- D) \$129,200

226) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$137,600
- B) \$104,000
- C) \$33,600
- D) \$310,933

227) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000

Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$40,950
- B) \$19,800
- C) \$56,400
- D) \$76,200

228) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The predetermined overhead rate for the Machining Department is closest to:

- A) \$22.93 per machine-hour
- B) \$6.50 per machine-hour
- C) \$2.10 per machine-hour
- D) \$8.60 per machine-hour

229) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The predetermined overhead rate for the Customizing Department is closest to:

- A) \$3.30 per direct labor-hour
- B) \$12.70 per direct labor-hour
- C) \$9.40 per direct labor-hour
- D) \$4.76 per direct labor-hour

230) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The amount of overhead applied in the Machining Department to Job T272 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$137,600.00
- B) \$126.00
- C) \$516.00
- D) \$564.00

231) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000

Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$104,000	\$56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The amount of overhead applied in the Customizing Department to Job T272 is closest to:
(Round your intermediate calculations to 2 decimal places.)

- A) \$76,200.00
- B) \$762.00
- C) \$564.00
- D) \$198.00

232) Stoke Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	20,000	15,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$138,000	\$58,100
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job A460. The following data were recorded for this job:

Job A460:	Forming	Assembly
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Machine-hours	80	10
Direct labor-hours	30	50

The amount of overhead applied in the Forming Department to Job A460 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$184,000.00
- B) \$184.00
- C) \$736.00
- D) \$664.00

233) Stoke Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	20,000	15,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$138,000	\$58,100
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job A460. The following data were recorded for this job:

Job A460:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	50

The amount of overhead applied in the Assembly Department to Job A460 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$415.00
- B) \$150.00
- C) \$565.00
- D) \$79,100.00

234) Vanliere Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$138,700	\$52,800
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A803. The following data were recorded for this job:

Job A803:	Machining	Finishing
Machine-hours	90	20
Direct labor-hours	20	60

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$8.80 per direct labor-hour
- B) \$3.98 per direct labor-hour
- C) \$12.60 per direct labor-hour
- D) \$3.80 per direct labor-hour

235) Vanliere Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$138,700	\$52,800
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A803. The following data were recorded for this job:

Job A803:	Machining	Finishing
Machine-hours	90	20
Direct labor-hours	20	60

The amount of overhead applied in the Machining Department to Job A803 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$828.00
- B) \$792.00
- C) \$171.00
- D) \$174,800.00

236) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000

Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$102,400	\$55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$870	\$385
Direct labor cost	\$630	\$840

The estimated total manufacturing overhead for the Forming Department is closest to:

- A) \$36,800
- B) \$102,400
- C) \$309,867
- D) \$139,200

237) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$102,400	\$55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$870	\$385
Direct labor cost	\$630	\$840

The estimated total manufacturing overhead for the Assembly Department is closest to:

- A) \$27,000
- B) \$55,200
- C) \$82,200
- D) \$47,700

238) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$102,400	\$55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$870	\$385
Direct labor cost	\$630	\$840

The total amount of overhead applied in both departments to Job T924 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$1,157
- B) \$548
- C) \$609
- D) \$1,705

239) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$28,000	\$10,500	\$38,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Forming Department is closest to:

- A) \$5.60
- B) \$7.40
- C) \$1.80
- D) \$6.05

240) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

Forming	Assembly	Total
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Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$28,000	\$10,500	\$38,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.60
- B) \$4.70
- C) \$6.05
- D) \$2.10

241) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$28,000	\$10,500	\$38,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job B is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$9,400
- B) \$25,160
- C) \$32,670
- D) \$34,560

242) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$28,000	\$10,500	\$38,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job L is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$27,830
- B) \$11,840
- C) \$25,940
- D) \$14,100

243) Barbeau Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	13,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$119,000	\$42,000
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job A492. The following data were recorded for this job:

Job A492:	Milling	Customizing
Machine-hours	90	20
Direct labor-hours	20	50

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$63,500
- B) \$21,500
- C) \$42,000
- D) \$33,853

244) Barbeau Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	13,000
Direct labor-hours	2,000	5,000

Total fixed manufacturing overhead cost	\$119,000	\$42,000
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job A492. The following data were recorded for this job:

Job A492:	Milling	Customizing
Machine-hours	90	20
Direct labor-hours	20	50

The amount of overhead applied in the Milling Department to Job A492 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$146,200.00
- B) \$144.00
- C) \$756.00
- D) \$774.00

245) Kroeker Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	12,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$112,200	\$81,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T898. The following data were recorded for this job:

Job T898:	Milling	Customizing
Machine-hours	80	30

Direct labor-hours

20

50

The estimated total manufacturing overhead for the Milling Department is closest to:

- A) \$240,833
- B) \$141,100
- C) \$28,900
- D) \$112,200

246) Kroeker Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	12,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$112,200	\$81,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T898. The following data were recorded for this job:

Job T898:	Milling	Customizing
Machine-hours	80	30
Direct labor-hours	20	50

The amount of overhead applied in the Customizing Department to Job T898 is closest to:
(Round your intermediate calculations to 2 decimal places.)

- A) \$450.00
- B) \$119,700.00
- C) \$665.00
- D) \$215.00

247) Petty Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	20,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$148,000	\$88,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The estimated total manufacturing overhead for the Milling Department is closest to:

- A) \$408,000
- B) \$38,000
- C) \$148,000
- D) \$186,000

248) Petty Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	20,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$148,000	\$88,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$5.84 per direct labor-hour
- B) \$3.60 per direct labor-hour
- C) \$11.00 per direct labor-hour
- D) \$14.60 per direct labor-hour

249) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	11,000	17,000
Direct labor-hours	5,000	6,000
Total fixed manufacturing overhead cost	\$37,400	\$19,200
Variable manufacturing overhead per machine-hour	\$ 1.40	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$55,400
- B) \$21,600
- C) \$40,800
- D) \$19,200

250) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
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Machine-hours	20,000	13,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$152,000	\$68,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$54,110
- B) \$30,100
- C) \$98,700
- D) \$68,600

251) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	20,000	13,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$152,000	\$68,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

The predetermined overhead rate for the Casting Department is closest to:

- A) \$9.70 per machine-hour
- B) \$7.60 per machine-hour
- C) \$2.10 per machine-hour
- D) \$27.71 per machine-hour

252) Marciante Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$105,400	\$52,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The estimated total manufacturing overhead for the Casting Department is closest to:

- A) \$387,260
- B) \$134,300
- C) \$28,900
- D) \$105,400

253) Marciante Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$105,400	\$52,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The estimated total manufacturing overhead for the Finishing Department is closest to:

- A) \$71,500
- B) \$52,000
- C) \$34,794
- D) \$19,500

254) Jurica Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	19,000	15,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$100,700	\$63,000
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The predetermined overhead rate for the Forming Department is closest to:

- A) \$23.12 per machine-hour
- B) \$2.00 per machine-hour
- C) \$5.30 per machine-hour
- D) \$7.30 per machine-hour

255) Jurica Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
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Machine-hours	19,000	15,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$100,700	\$63,000
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The predetermined overhead rate for the Customizing Department is closest to:

- A) \$4.55 per direct labor-hour
- B) \$3.90 per direct labor-hour
- C) \$10.50 per direct labor-hour
- D) \$14.40 per direct labor-hour

256) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$17,700	\$5,800	\$23,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	\$ 2.20	

Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$4.70
- B) \$7.40
- C) \$6.48
- D) \$3.70

257) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$17,700	\$5,800	\$23,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	\$ 2.20	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Casting Department is closest to:

- A) \$1.50
- B) \$7.40
- C) \$5.90
- D) \$6.48

258) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$17,700	\$5,800	\$23,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	\$ 2.20	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.90
- B) \$6.48
- C) \$5.10
- D) \$2.20

259) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.40	\$ 58.20
Direct labor per unit	\$ 17.90	\$ 53.70
Direct labor-hours per unit	0.90	2.70
Annual production (units)	90,000	30,000

The company's estimated total manufacturing overhead for the year is \$4,467,600 and the company's estimated total direct labor-hours for the year is 162,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 3,240,000		
Preparing batches (batches)	223,200		
Product support (product variations)	1,004,400		
Total	\$ 4,467,600		
	Expected Activity		
	I63E	E76I	Total
Direct labor-hours	81,000	81,000	162,000
Batches	1,200	650	1,850
Product variations	2,400	1,300	3,700

The manufacturing overhead that would be applied to a unit of product I63E under the company's traditional costing system is closest to:

- A) \$27.58
- B) \$74.46
- C) \$49.64
- D) \$24.82

260) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.90	\$ 54.40
Direct labor per unit	\$ 12.00	\$ 31.50
Direct labor-hours per unit	0.80	2.10
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$2,063,250 and the company's estimated total direct labor-hours for the year is 45,000. The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 720,000		
Preparing batches (batches)	263,250		
Product support (product variations)	1,080,000		
Total	\$ 2,063,250		
	Expected Activity		
	I63E	E76I	Total
Direct labor-hours	24,000	21,000	45,000
Batches	1,080	675	1,755
Product variations	2,115	1,485	3,600

The manufacturing overhead that would be applied to a unit of product I63E under the company's traditional costing system is closest to:

- A) \$12.80
- B) \$39.35
- C) \$76.03
- D) \$36.68

261) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.40	\$ 58.20
Direct labor per unit	\$ 17.90	\$ 53.70
Direct labor-hours per unit	0.90	2.70
Annual production (units)	90,000	30,000

The company's estimated total manufacturing overhead for the year is \$4,467,600 and the company's estimated total direct labor-hours for the year is 162,000. The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Assembling products (direct labor-hours)	\$ 3,240,000
Preparing batches (batches)	223,200
Product support (product variations)	1,004,400
Total	\$ 4,467,600

	Expected Activity		
	I63E	E76I	Total
Direct labor-hours	81,000	81,000	162,000
Batches	1,200	650	1,850
Product variations	2,400	1,300	3,700

The manufacturing overhead that would be applied to a unit of product E76I under the activity-based costing system is closest to:

- A) \$68.38
- B) \$27.58
- C) \$148.92
- D) \$25.32

262) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.90	\$ 54.40
Direct labor per unit	\$ 12.00	\$ 31.50
Direct labor-hours per unit	0.80	2.10
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$2,063,250 and the company's estimated total direct labor-hours for the year is 45,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 720,000		
Preparing batches (batches)	263,250		
Product support (product variations)	1,080,000		
Total	\$ 2,063,250		
	Expected Activity		
	I63E	E76I	Total
Direct labor-hours	24,000	21,000	45,000
Batches	1,080	675	1,755
Product variations	2,115	1,485	3,600

The manufacturing overhead that would be applied to a unit of product E76I under the activity-based costing system is closest to:

- A) \$88.28
- B) \$96.29
- C) \$184.57
- D) \$10.13

263) Coudriet Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, P93S and N40S, about which it has provided the following data:

	P93S	N40S
Direct materials per unit	\$ 21.90	\$ 54.80
Direct labor per unit	\$ 8.80	\$ 13.20
Direct labor-hours per unit	0.80	1.20
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,172,580 and the company's estimated total direct labor-hours for the year is 46,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Direct labor support (direct labor-hours)	\$ 552,000		
Setting up machines (setups)	419,980		
Part administration (part types)	1,200,600		
Total	\$ 2,172,580		
	Expected Activity		
	P93S	N40S	Total
Direct labor-hours	28,000	18,000	46,000
Setups	2,162	1,656	3,818
Part types	1,886	2,116	4,002

The unit product cost of product P93S under the company's traditional costing system is closest to:

- A) \$68.48
- B) \$63.26
- C) \$30.70
- D) \$40.30

264) Coudriet Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, P93S and N40S, about which it has provided the following data:

	P93S	N40S
Direct materials per unit	\$ 21.90	\$ 54.80
Direct labor per unit	\$ 8.80	\$ 13.20
Direct labor-hours per unit	0.80	1.20
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,172,580 and the company's estimated total direct labor-hours for the year is 46,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	<u>Expected Activity</u>		
		P93S	N40S	Total
Direct labor support (direct labor-hours)	\$ 552,000			
Setting up machines (setups)	419,980			
Part administration (part types)	1,200,600			
Total	<u>\$ 2,172,580</u>			
Direct labor-hours		28,000	18,000	46,000
Setups		2,162	1,656	3,818
Part types		1,886	2,116	4,002

The unit product cost of product N40S under the activity-based costing system is closest to:

- A) \$68.00
- B) \$68.86
- C) \$124.68
- D) \$136.86

265) Poma Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, R78S and N32Y, about which it has provided the following data:

	R78S	N32Y
Direct materials per unit	\$ 27.20	\$ 54.70
Direct labor per unit	\$ 8.80	\$ 22.00
Direct labor-hours per unit	0.4	1.0
Annual production (units)	35,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,427,040 and the company's estimated total direct labor-hours for the year is 24,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 672,000		
Preparing batches (batches)	255,840		
Product support (product variations)	499,200		
Total	\$ 1,427,040		
	Expected Activity		
	R78S	N32Y	Total
Direct labor-hours	14,000	10,000	24,000
Batches	816	1,152	1,968
Product variations	840	408	1,248

The unit product cost of product R78S under the company's traditional costing system is closest to:

- A) \$36.00
- B) \$59.83
- C) \$47.20
- D) \$59.78

266) Poma Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, R78S and N32Y, about which it has provided the following data:

	R78S	N32Y
Direct materials per unit	\$ 27.20	\$ 54.70
Direct labor per unit	\$ 8.80	\$ 22.00
Direct labor-hours per unit	0.4	1.0
Annual production (units)	35,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,427,040 and the company's estimated total direct labor-hours for the year is 24,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	Expected Activity		
		R78S	N32Y	Total
Assembling products (direct labor-hours)	\$ 672,000			
Preparing batches (batches)	255,840			
Product support (product variations)	499,200			
Total	\$ 1,427,040			
Direct labor-hours		14,000	10,000	24,000
Batches		816	1,152	1,968
Product variations		840	408	1,248

The unit product cost of product N32Y under the activity-based costing system is closest to:

- A) \$136.00
- B) \$76.70
- C) \$59.30
- D) \$136.16

267) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools-- Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	\$ 68,756			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)The predetermined overhead rate under the traditional costing system is closest to:

- A) \$11.71
- B) \$38.69
- C) \$171.89
- D) \$23.87

268) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756.The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools-- Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900

General Factory	15,476	200	200	400
Total	\$ 68,756			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The overhead cost per unit of Product B under the traditional costing system is closest to:

- A) \$2.34
- B) \$7.74
- C) \$4.77
- D) \$34.38

269) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools-- Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	\$ 68,756			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The predetermined overhead rate (i.e., activity rate) for Activity 2 under the activity-based costing system is closest to:

- A) \$13.91
- B) \$11.71
- C) \$74.16
- D) \$36.19

270) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 2,000 units of Product A and 2,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$107,650. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 45,150	1,400	700	2,100
Activity 2	21,700	900	500	1,400
General Factory	40,800	800	400	1,200
Total	\$ 107,650			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.) The overhead cost per unit of Product B under the activity-based costing system is closest to:

- A) \$37.00
- B) \$19.20
- C) \$26.00
- D) \$18.20

271) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools-- Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	\$ 68,756			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The overhead cost per unit of Product B under the activity-based costing system is closest to:

- A) \$45.84
- B) \$7.74
- C) \$34.38
- D) \$18.41

272) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000

Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

	Model #19	Model #36	Model #58
Direct material cost	\$ 400	\$ 540	\$ 310
Direct labor cost	\$ 810	\$ 600	\$ 220
Number of setups	2	3	1
Number of inspections	1	3	1
Number of machine hours	4	8	10

Under the traditional costing system, what would be the selling price of one unit of Model #36?

- A) \$2,536
- B) \$2,712
- C) \$4,080
- D) \$5,506

273) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000
Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

	Model #19	Model #36	Model #58
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Direct material cost	\$ 400	\$ 540	\$ 310
Direct labor cost	\$ 810	\$ 600	\$ 220
Number of setups	2	3	1
Number of inspections	1	3	1
Number of machine hours	4	8	10

Under the activity-based costing system, what would be the selling price of one unit of Model #36?

- A) \$2,536
- B) \$2,712
- C) \$4,080
- D) \$5,506

274) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000
Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

	Model #19	Model #36	Model #58
Direct material cost	\$ 400	\$ 540	\$ 310
Direct labor cost	\$ 810	\$ 600	\$ 220
Number of setups	2	3	1
Number of inspections	1	3	1
Number of machine hours	4	8	10

In comparing the traditional system with the activity-based costing system, which of Njombe's Models had higher unit product costs under the traditional system?

- A) #19
- B) #58
- C) #19 and #58
- D) #36 and #58

275) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 27.20	\$ 62.40
Direct labor per unit	\$ 11.00	\$ 29.00
Direct labor-hours per unit	0.20	1.00
Annual production (units)	54,000	19,000

The company's estimated total manufacturing overhead for the year is \$1,807,648 and the company's estimated total direct labor-hours for the year is 29,800. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
	Expected Activity		
	N06D	M09K	Total
Supporting direct labor (direct labor-hours)	\$ 834,400		
Setting up machines (setups)	542,568		
Parts administration (part types)	430,680		
Total	\$ 1,807,648		
Direct labor-hours	10,800	19,000	29,800
Setups	1,420	1,024	2,444
Part types	719	251	970

The manufacturing overhead that would be applied to a unit of product N06D under the company's traditional costing system is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$23.66
- B) \$12.13
- C) \$15.65
- D) \$7.12

276) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 17.70	\$ 62.50
Direct labor per unit	\$ 5.00	\$ 16.00
Direct labor-hours per unit	0.50	1.60
Annual production (units)	40,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,532,200 and the company's estimated total direct labor-hours for the year is 44,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
	Expected Activity		
	N06D	M09K	Total
Supporting direct labor (direct labor-hours)	\$ 880,000		
Setting up machines (setups)	376,200		
Parts administration (part types)	1,276,000		
Total	\$ 2,532,200		
Direct labor-hours	20,000	24,000	44,000
Setups	1,408	1,100	2,508
Part types	1,540	1,012	2,552

The manufacturing overhead that would be applied to a unit of product N06D under the company's traditional costing system is closest to:

- A) \$28.78
- B) \$10.00
- C) \$63.31
- D) \$34.53

277) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 31.80	\$ 63.30
Direct labor per unit	\$ 10.00	\$ 27.00
Direct labor-hours per unit	0.20	1.00
Annual production (units)	45,600	21,100

The company's estimated total manufacturing overhead for the year is \$1,632,986 and the company's estimated total direct labor-hours for the year is 30,220. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
	Expected Activity		
	N06D	M09K	Total
Supporting direct labor (direct labor-hours)	\$ 695,060		
Setting up machines (setups)	551,702		
Parts administration (part types)	386,224		
Total	\$ 1,632,986		
Direct labor-hours	9,120	21,100	30,220
Setups	1,450	1,024	2,474
Part types	677	279	956

The manufacturing overhead that would be applied to a unit of product M09K under the activity-based costing system is closest to:

- A) \$39.16
- B) \$49.71
- C) \$16.76
- D) \$80.22

278) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 17.70	\$ 62.50
Direct labor per unit	\$ 5.00	\$ 16.00
Direct labor-hours per unit	0.50	1.60
Annual production (units)	40,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,532,200 and the company's estimated total direct labor-hours for the year is 44,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
	Expected Activity		
	N06D	M09K	Total
Supporting direct labor (direct labor-hours)	\$ 880,000		
Setting up machines (setups)	376,200		
Parts administration (part types)	1,276,000		
Total	\$ 2,532,200		
Direct labor-hours	20,000	24,000	44,000
Setups	1,408	1,100	2,508
Part types	1,540	1,012	2,552

The manufacturing overhead that would be applied to a unit of product M09K under the activity-based costing system is closest to:

- A) \$76.73
- B) \$92.08
- C) \$11.00
- D) \$168.81

279) Risser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$19,988
Capacity of the jointer	380 hours

Actual results:

Sales	\$62,400
Direct materials	\$16,900
Direct labor	\$15,260
Actual total fixed manufacturing overhead	\$19,988
Selling and administrative expense	\$11,400
Actual hours of jointer use	340 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$956
- B) \$12,356
- C) \$23,756
- D) \$62,400

280) Risser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$14,256
Capacity of the jointer	240 hours
Actual results:	
Sales	\$62,310
Direct materials	\$14,100
Direct labor	\$16,000
Actual total fixed manufacturing overhead	\$14,256
Selling and administrative expense	\$8,900
Actual hours of jointer use	220 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$10,242
- B) \$19,142
- C) \$17,954
- D) \$62,310

281) The management of Garn Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated activity for the coming year. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated activity for the upcoming year is 60,400 machine-hours. Capacity is 76,400 machine-hours. All of the manufacturing overhead is fixed and is \$3,361,600 per year within the range of 60,400 to 76,400 machine-hours. If the Corporation bases its predetermined overhead rate on capacity but the actual level of activity for the year turns out to be 61,200 machine-hours, the cost of unused capacity shown on the income statement prepared for internal management purposes would be closest to:

- A) \$43,942
- B) \$712,742
- C) \$668,800
- D) \$44,525

282) The management of Garn Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated activity for the coming year. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated activity for the upcoming year is 69,000 machine-hours. Capacity is 85,000 machine-hours. All of the manufacturing overhead is fixed and is \$4,105,500 per year within the range of 69,000 to 85,000 machine-hours. If the Corporation bases its predetermined overhead rate on capacity but the actual level of activity for the year turns out to be 69,700 machine-hours, the cost of unused capacity shown on the income statement prepared for internal management purposes would be closest to:

- A) \$772,800
- B) \$780,640
- C) \$738,990
- D) \$41,650

283) The management of Krach Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 10,000 machine-hours. Capacity is 16,000 machine-hours and the actual level of activity for the year is assumed to be 8,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$40,000 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$6,000
- B) \$20,000
- C) \$5,000
- D) \$25,000

284) The management of Krach Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 10,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 9,500 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$12,000 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$2,000
- B) \$2,500
- C) \$1,900
- D) \$600

285) The management of Winterroth Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours.

	Estimated at the Beginning of the Year	Capacity	Actual
Machine-hours	76,000	86,000	72,000
Manufacturing overhead	\$1,820,620	\$1,820,620	\$1,820,620

If the Corporation bases its predetermined overhead rate on capacity, then as shown on the income statement prepared for internal management purposes, the cost of unused capacity would be closest to:

- A) \$211,700
- B) \$296,380
- C) \$234,000
- D) \$95,822

286) The management of Winterroth Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours.

	Estimated at the Beginning of the Year	Capacity	Actual
Machine-hours	53,000	63,000	49,000
Manufacturing overhead	\$1,803,060	\$1,803,060	\$1,803,060

If the Corporation bases its predetermined overhead rate on capacity, then as shown on the income statement prepared for internal management purposes, the cost of unused capacity would be closest to:

- A) \$286,200
- B) \$400,680
- C) \$264,600
- D) \$136,080

287) Dowty Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$19,964
Capacity of the lathe	280 hours

Actual results:

Actual total fixed manufacturing overhead	\$19,964
Actual hours of lathe use	230 hours

The manufacturing overhead applied is closest to:

- A) \$19,964
- B) \$16,399
- C) \$7,639
- D) \$9,300

288) Rapier Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$3,496
Capacity of the jointer	190 hours

Actual results:

Actual total fixed manufacturing overhead	\$3,496
Actual hours of jointer use	160 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$59.35 per hour
- B) \$50.10 per hour
- C) \$21.85 per hour
- D) \$18.40 per hour

289) Rapier Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$3,740
Capacity of the jointer	200 hours

Actual results:

Actual total fixed manufacturing overhead	\$3,740
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Actual hours of jointer use

170 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$58.24 per hour
- B) \$49.50 per hour
- C) \$22.00 per hour
- D) \$18.70 per hour

290) Traeger Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$26,460
Capacity of the bandsaw	360 hours

Actual results:

Actual total fixed manufacturing overhead	\$26,460
Actual hours of bandsaw use	340 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$1,470
- B) \$13,230
- C) \$0
- D) \$14,700

291) Traeger Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$26,936
Capacity of the bandsaw	280 hours

Actual results:

Actual total fixed manufacturing overhead	\$26,936
Actual hours of bandsaw use	260 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$1,924
- B) \$18,136
- C) \$0
- D) \$18,765

292) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$24,885
Capacity of the jointer	450 hours

Actual results:

Sales	\$64,500
Direct materials	\$13,000
Direct labor	\$13,160
Actual total fixed manufacturing overhead	\$24,885
Selling and administrative expense	\$10,800
Actual hours of jointer use	410 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$0
- B) \$14,085
- C) \$2,212
- D) \$16,297

293) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$11,648
Capacity of the jointer	280 hours

Actual results:

Sales	\$52,760
Direct materials	\$13,300
Direct labor	\$16,000
Actual total fixed manufacturing overhead	\$11,648
Selling and administrative expense	\$9,300
Actual hours of jointer use	260 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$0
- B) \$2,348
- C) \$832
- D) \$3,012

294) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$11,648
Capacity of the jointer	280 hours

Actual results:

Sales	\$52,760
Direct materials	\$13,300
Direct labor	\$16,000
Actual total fixed manufacturing overhead	\$11,648

Selling and administrative expense	\$9,300
Actual hours of jointer use	260 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$52,760
- B) \$3,344
- C) \$12,644
- D) \$11,812

295) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$79,268
Direct materials	\$12,200
Direct labor	\$17,400
Actual total fixed manufacturing overhead	\$33,075
Selling and administrative expense	\$8,100
Actual hours of shaper use	250 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$30.00 per hour
- B) \$122.50 per hour
- C) \$32.40 per hour
- D) \$132.30 per hour

296) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$47,100
Capacity of the shaper	300 hours

Actual results:

Sales	\$127,000
Direct materials	\$11,400
Direct labor	\$16,200
Actual total fixed manufacturing overhead	\$47,100
Selling and administrative expense	\$3,200
Actual hours of shaper use	260 hours

The manufacturing overhead applied is closest to:

- A) \$16,933
- B) \$47,100
- C) \$3,200
- D) \$40,820

297) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$79,268
Direct materials	\$12,200
Direct labor	\$17,400
Actual total fixed manufacturing overhead	\$33,075
Selling and administrative expense	\$8,100

Actual hours of shaper use

250 hours

The manufacturing overhead applied is closest to:

- A) \$7,500
- B) \$33,075
- C) \$8,100
- D) \$30,625

298) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$36,900
Capacity of the shaper	300 hours

Actual results:

Sales	\$104,000
Direct materials	\$11,500
Direct labor	\$16,500
Actual total fixed manufacturing overhead	\$36,900
Selling and administrative expense	\$4,900
Actual hours of shaper use	270 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$3,690
- B) \$0
- C) \$32,000
- D) \$36,900

299) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$79,268
Direct materials	\$12,200
Direct labor	\$17,400
Actual total fixed manufacturing overhead	\$33,075
Selling and administrative expense	\$8,100
Actual hours of shaper use	250 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$2,450
- B) \$0
- C) \$24,975
- D) \$25,575

300) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$43,470
Capacity of the shaper	270 hours

Actual results:

Sales	\$127,000
Direct materials	\$11,600
Direct labor	\$16,600
Actual total fixed manufacturing overhead	\$43,470
Selling and administrative expense	\$3,100
Actual hours of shaper use	250 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$58,550
- B) \$52,230
- C) \$55,450
- D) \$127,000

301) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$79,268
Direct materials	\$12,200
Direct labor	\$17,400
Actual total fixed manufacturing overhead	\$33,075
Selling and administrative expense	\$8,100
Actual hours of shaper use	250 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$19,043
- B) \$16,593
- C) \$10,943
- D) \$79,268

302) Dunnings Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated router. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$10,998
Capacity of the router	180 hours
Actual results:	
Actual total fixed manufacturing overhead	\$10,998
Actual hours of router use	130 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$84.60 per hour
- B) \$61.10 per hour
- C) \$61.54 per hour
- D) \$44.44 per hour

303) Dunnings Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated router. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$10,998
Capacity of the router	180 hours
Actual results:	
Actual total fixed manufacturing overhead	\$10,998
Actual hours of router use	130 hours

The manufacturing overhead applied is closest to:

- A) \$7,943
- B) \$8,000
- C) \$5,778
- D) \$10,998

304) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 11,000 machine-hours. Capacity is 14,000 machine-hours and the actual level of activity for the year is assumed to be 9,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$15,070 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$1.37 per machine-hour
- B) \$1.54 per machine-hour
- C) \$1.08 per machine-hour
- D) \$1.55 per machine-hour

305) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$1.32 per machine-hour
- B) \$1.49 per machine-hour
- C) \$0.99 per machine-hour
- D) \$1.54 per machine-hour

306) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 20,000 machine-hours. Capacity is 23,000 machine-hours and the actual level of activity for the year is assumed to be 18,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$29,000 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$1.55 per machine-hour
- B) \$1.45 per machine-hour
- C) \$1.62 per machine-hour
- D) \$1.26 per machine-hour

307) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$1.54 per machine-hour
- B) \$1.32 per machine-hour
- C) \$1.49 per machine-hour
- D) \$0.99 per machine-hour

308) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 28,000 machine-hours. Capacity is 31,000 machine-hours and the actual level of activity for the year is assumed to be 26,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$42,560 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes? **(Round intermediate calculations to 2 decimal places.)**

- A) \$3,540.00
- B) \$4,005.00
- C) \$1,976.00
- D) \$5,981.00

309) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$2,970
- B) \$2,541
- C) \$1,716
- D) \$4,257

310) Zackery Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$7,452
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$7,452
Actual hours of lathe use	180 hours

The manufacturing overhead applied is closest to:

- A) \$9,900
- B) \$5,832
- C) \$7,748
- D) \$7,452

311) Zackery Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$7,452
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$7,452
Actual hours of lathe use	180 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$2,448
- B) \$296
- C) \$0
- D) \$1,620

312) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 71,100 machine-hours. Capacity is 80,100 machine-hours and the actual level of activity for the year is assumed to be 67,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,701,518 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$80.19 per machine-hour
- B) \$78.00 per machine-hour
- C) \$85.10 per machine-hour
- D) \$71.18 per machine-hour

313) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 79,000 machine-hours. Capacity is 88,000 machine-hours and the actual level of activity for the year is assumed to be 74,900 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,700,640 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$72.16 per machine-hour
- B) \$70.38 per machine-hour
- C) \$76.11 per machine-hour
- D) \$64.78 per machine-hour

314) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 79,000 machine-hours. Capacity is 88,000 machine-hours and the actual level of activity for the year is assumed to be 74,900 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,700,640 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$295,856
- B) \$848,618
- C) \$583,020
- D) \$552,762

315) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 52,200 machine-hours. Capacity is 65,200 machine-hours and the actual level of activity for the year is assumed to be 49,200 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,852 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 570 machine-hours. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$54.35 per machine-hour
- B) \$43.51 per machine-hour
- C) \$58.34 per machine-hour
- D) \$52.34 per machine-hour

316) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$48.08 per machine-hour
- B) \$37.82 per machine-hour
- C) \$48.91 per machine-hour
- D) \$45.75 per machine-hour

317) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 58,400 machine-hours. Capacity is 71,400 machine-hours and the actual level of activity for the year is assumed to be 55,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,008 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 340 machine-hours. If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to job Z77W is closest to:

- A) \$13,504.80
- B) \$16,799.40
- C) \$17,744.95
- D) \$17,405.10

318) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours. If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to job Z77W is closest to:

- A) \$15,506.20
- B) \$19,065.00
- C) \$20,051.12
- D) \$19,711.27

319) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$137,250
- B) \$605,120
- C) \$491,660
- D) \$467,870

320) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 60,000 machine-hours. Capacity is 80,000 machine-hours and the actual level of activity for the year is assumed to be 65,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$662,400 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 310 machine-hours.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$10.19 per machine-hour
- B) \$7.64 per machine-hour
- C) \$11.04 per machine-hour
- D) \$8.28 per machine-hour

321) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours. If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$57.05 per machine-hour
- B) \$60.83 per machine-hour
- C) \$59.86 per machine-hour
- D) \$50.37 per machine-hour

322) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 50,000 machine-hours. Capacity is 63,000 machine-hours and the actual level of activity for the year is assumed to be 55,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$1,858,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 340 machine-hours. If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$10,030.00
- B) \$11,488.91
- C) \$9,118.18
- D) \$12,637.80

323) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours. If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$23,673.90
- B) \$26,812.98
- C) \$28,589.98
- D) \$28,134.20

324) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours. If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$57.05 per machine-hour
- B) \$59.86 per machine-hour
- C) \$50.37 per machine-hour
- D) \$60.83 per machine-hour

325) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 58,000 machine-hours. Capacity is 78,000 machine-hours and the actual level of activity for the year is assumed to be 75,500 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,704,960 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 440 machine-hours. If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$35,692.80
- B) \$20,388.96
- C) \$27,419.63
- D) \$26,540.80

326) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours. If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$28,589.98
- B) \$26,592.60
- C) \$26,812.98
- D) \$23,673.90

327) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 92,000 machine-hours and the actual level of activity for the year is assumed to be 75,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$772,800 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 380 machine-hours. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$193,200
- B) \$67,200
- C) \$61,824
- D) \$142,800

328) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours. If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$654,810
- B) \$687,076
- C) \$547,669
- D) \$483,552

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

329) Linnear Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$144,000
Variable manufacturing overhead per machine-hour	\$ 4.00

Required: Calculate the estimated total manufacturing overhead for the year.

330) Dallman Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$287,000, and a variable manufacturing overhead rate of \$3.50 per machine-hour.**Required:**a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.

331) Henkes Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 69,000 labor-hours. The estimated variable manufacturing overhead was \$7.30 per labor-hour and the estimated total fixed manufacturing overhead was \$1,380,000. The actual labor-hours for the year turned out to be 73,000 labor-hours.**Required:**Compute the company's predetermined overhead rate for the recently completed year. **(Round your answer to 2 decimal places.)**

332) Crowson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
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Total fixed manufacturing overhead cost	\$390,000
Variable manufacturing overhead per machine-hour	\$ 3.60

Required: Calculate the predetermined overhead rate for the year.

333) Cannizzaro Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$248,000, and a variable manufacturing overhead rate of \$3.80 per machine-hour. **Required:** Calculate the predetermined overhead rate for the year.

334) Quiet Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$152,000, and a variable manufacturing overhead rate of \$3.10 per machine-hour. **Required:** Calculate the estimated total manufacturing overhead for the year.

335) Florek Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
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Total fixed manufacturing overhead cost	\$31,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.

336) Meenach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 54,000 direct labor-hours, total fixed manufacturing overhead cost of \$54,000, and a variable manufacturing overhead rate of \$2.40 per direct labor-hour. Recently Job X387 was completed and required 210 direct labor-hours.**Required:**Calculate the amount of overhead applied to Job X387. **(Do not round intermediate calculations.)**

337) Meenach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 80,000 direct labor-hours, total fixed manufacturing overhead cost of \$160,000, and a variable manufacturing overhead rate of \$2.30 per direct labor-hour. Recently Job X387 was completed and required 120 direct labor-hours.**Required:**Calculate the amount of overhead applied to Job X387. **(Do not round intermediate calculations.)**

338) Weakley Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$358,000 and 20,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$382,000 and 18,300 total machine-hours during the period.**Required:**Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

339) Fillmore Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 60,000 direct labor-hours, total fixed manufacturing overhead cost of \$96,000, and a variable manufacturing overhead rate of \$3.30 per direct labor-hour. Recently Job X809 was completed and required 100 direct labor-hours.**Required:**a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job X809.

340) Thrall Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$50,000
Variable manufacturing overhead per machine-hour	\$ 3.90

Recently Job K125 was completed and required 160 machine-hours.**Required:**Calculate the amount of overhead applied to Job K125.

341) Verry Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	60,000
Total fixed manufacturing overhead cost	\$342,000
Variable manufacturing overhead per direct labor-hour	\$ 2.40

Recently Job X711 was completed and required 90 direct labor-hours. **Required:**a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job X711.

342) Trevigne Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$ 114,000
Estimated activity level from the beginning of the year	10,000 machine-h
Actual total fixed manufacturing overhead	\$ 104,000
Actual activity level	9,400 machine-h

Required:Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

343) Luarca Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$11,600	\$7,200	\$18,800
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.90	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job F and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job L
Direct materials	\$10,600	\$6,600
Direct labor cost	\$24,400	\$8,600
Casting machine-hours	1,400	600
Customizing machine-hours	1,200	1,800

Required: Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling prices for Job F and Job L.

344) Lamberson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
Total fixed manufacturing overhead cost	\$460,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently Job P647 was completed with the following characteristics:

Number of units in the job	50
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Total machine-hours	150
Direct materials	\$ 740
Direct labor cost	\$6,000

Required:a. Calculate the amount of overhead applied to Job P647.b. Calculate the total job cost for Job P647.c. Calculate the unit product cost for Job P647.

345) Mcewan Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 45,000 direct labor-hours, total fixed manufacturing overhead cost of \$315,000, and a variable manufacturing overhead rate of \$3.80 per direct labor-hour. Job X941, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	300
Direct materials	\$ 600
Direct labor cost	\$6,400

Required:Calculate the selling price for Job X941 if the company marks up its unit product costs by 20%. **(Round intermediate calculations and final answer to 2 decimal places.)**

346) Mcewan Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 20,000 direct labor-hours, total fixed manufacturing overhead cost of \$182,000, and a variable manufacturing overhead rate of \$2.50 per direct labor-hour. Job X941, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	250
Direct materials	\$ 740

Direct labor cost \$ 6,500

Required: Calculate the selling price for Job X941 if the company marks up its unit product costs by 20%. **(Round intermediate calculations and final answer to 2 decimal places.)**

347) Teasley Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$630,000, and a variable manufacturing overhead rate of \$3.40 per machine-hour. Job X159 was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	200
Direct materials	\$ 670
Direct labor cost	\$7,800

Required: Calculate the total job cost for Job X159.

348) Alsobrooks Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	40,000
Total fixed manufacturing overhead cost	\$156,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently Job M242 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	60
Direct materials	\$ 725
Direct labor cost	\$1,680

Required:a. Calculate the total job cost for Job M242.b. Calculate the unit product cost for Job M242.

349) Ryans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$71,000
Variable manufacturing overhead per machine-hour	\$ 2.50

Recently Job P512 was completed with the following characteristics:

Number of units in the job	30
Total machine-hours	60
Direct materials	\$ 870
Direct labor cost	\$2,400

Required:a. Calculate the predetermined overhead rate for the year.b. Calculate the amount of overhead applied to Job P512.c. Calculate the total job cost for Job P512.d. Calculate the unit product cost for Job P512.

350) Lezo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$136,000, and a variable manufacturing overhead rate of \$2.90 per machine-hour. Job A290, which was for 60 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	300
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Direct materials	\$ 585
Direct labor cost	\$7,200

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job A290.d. Calculate the total job cost for Job A290.

351) Whitlatch Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	60,000
Total fixed manufacturing overhead cost	\$342,000
Variable manufacturing overhead per machine-hour	\$ 2.70

Recently Job M238 was completed with the following characteristics:

Number of units in the job	70
Total machine-hours	140
Direct materials	\$ 945
Direct labor cost	\$2,800

Required:Calculate the total job cost for Job M238.

352) Obermeyer Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 10,000 direct labor-hours, total fixed manufacturing overhead cost of \$96,000, and a variable manufacturing overhead rate of \$3.60 per direct labor-hour. Job A735, which was for 40 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	200
Direct materials	\$ 540
Direct labor cost	\$6,400

Required:a. Calculate the amount of overhead applied to Job A735.b. Calculate the total job cost for Job A735.c. Calculate the unit product cost for Job A735.

353) Olmscheid Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$21,000	\$14,000	\$ 35,000
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.40	

During the period, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$ 12,700	\$ 6,400
Direct labor cost	\$ 19,100	\$ 7,900
Molding machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Required:a. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate.b. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job F.c. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K.d. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job F.e. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job K.f. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job F.g. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.h. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. If both jobs were sold during the month, what was the company's cost of goods sold for the month?

354) Cardosa Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$308,000, and a variable manufacturing overhead rate of \$2.10 per machine-hour. Job M556, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	100
Direct materials	\$ 555
Direct labor cost	\$2,700

Required:a. Calculate the total job cost for Job M556.b. Calculate the unit product cost for Job M556.

355) Dietzen Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	4,000	6,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 18,000	\$ 18,000	\$ 36,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	2.30	

During the most recent month, the company started and completed two jobs--Job D and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job J
Direct materials	\$ 14,300	\$ 6,800
Direct labor cost	\$ 21,700	\$ 8,800
Casting machine-hours	2,700	1,300
Finishing machine-hours	2,400	3,600

Required:a. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job D.b. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job J.

356) Posson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 20,000 machine-hours, total fixed manufacturing overhead cost of \$130,000, and a variable manufacturing overhead rate of \$3.00 per machine-hour. Job K789, which was for 10 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	30
Direct materials	\$ 775
Direct labor cost	\$1,170

Required:a. Calculate the predetermined overhead rate for the year.b. Calculate the amount of overhead applied to Job K789.c. Calculate the total job cost for Job K789.d. Calculate the unit product cost for Job K789

357) Rondo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.90

Recently Job T506 was completed with the following characteristics:

Number of units in the job	70
Total machine-hours	210
Direct materials	\$ 665
Direct labor cost	\$6,720

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job T506.d. Calculate the total job cost for Job T506.e. Calculate the unit product cost for Job T506.f. Calculate the selling price for Job T506 if the company marks up its unit product costs by 20%.

358) Leadley Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$76,000
Variable manufacturing overhead per direct labor-hour	\$ 2.10

Recently Job X701 was completed with the following characteristics:

Number of units in the job	90
Total direct labor-hours	270
Direct materials	\$ 590
Direct labor cost	\$6,480

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job X701.d. Calculate the total job cost for Job X701

359) Pasko Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	30,000
Total fixed manufacturing overhead cost	\$258,000
Variable manufacturing overhead per direct labor-hour	\$ 2.00

Recently Job P660 was completed with the following characteristics:

Number of units in the job	50
Total direct labor-hours	250

Direct materials	\$ 645
Direct labor cost	\$10,000

Required: Calculate the selling price for Job P660 if the company marks up its unit product costs by 20%.

360) Leeds Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
Total fixed manufacturing overhead cost	\$215,000
Variable manufacturing overhead per machine-hour	\$ 3.80

Recently Job T496 was completed with the following characteristics:

Number of units in the job	80
Total machine-hours	240
Direct materials	\$ 735
Direct labor cost	\$8,880

Required: a. Calculate the estimated total manufacturing overhead for the year. b. Calculate the predetermined overhead rate for the year. c. Calculate the amount of overhead applied to Job T496. d. Calculate the total job cost for Job T496. e. Calculate the unit product cost for Job T496.

361) Petru Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$525,000

Variable manufacturing overhead per machine-hour \$ 2.30

Recently Job P987 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 630
Direct labor cost	\$2,080

Required: Calculate the unit product cost for Job P987.

362) Franta Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 70,000 direct labor-hours, total fixed manufacturing overhead cost of \$238,000, and a variable manufacturing overhead rate of \$2.70 per direct labor-hour. Job P873, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	200
Direct materials	\$ 630
Direct labor cost	\$4,800

Required: Calculate the unit product cost for Job P873.

363) Temby Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 10,000 machine-hours, total fixed manufacturing overhead cost of \$88,000, and a variable manufacturing overhead rate of \$3.20 per machine-hour. Job K418, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	150
Direct materials	\$ 580
Direct labor cost	\$3,900

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job K418.d. Calculate the total job cost for Job K418.e. Calculate the unit product cost for Job K418.f. Calculate the selling price for Job K418 if the company marks up its unit product costs by 30%.

364) Saxon Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 10,000 machine-hours, total fixed manufacturing overhead cost of \$91,000, and a variable manufacturing overhead rate of \$2.40 per machine-hour. Job K373, which was for 60 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	120
Direct materials	\$ 645
Direct labor cost	\$3,720

Required:a. Calculate the estimated total manufacturing overhead for the year.b. Calculate the predetermined overhead rate for the year.c. Calculate the amount of overhead applied to Job K373.d. Calculate the total job cost for Job K373.e. Calculate the unit product cost for Job K373

365) Kluth Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	9,000	2,600	11,600
Estimated total fixed manufacturing overhead cost	\$36,000	\$9,360	\$45,360
Estimated variable manufacturing overhead cost per machine-hour	\$2.50	\$5.00	

During the most recent month, the company started and completed two jobs--Job C and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job M
Direct materials	\$ 15,500	\$ 9,100
Direct labor cost	\$ 22,300	\$ 9,300
Molding machine-hours	1,250	7,750
Customizing machine-hours	2,100	500

Required: Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling prices for Job C and for Job M. (**Do not round intermediate calculations.**)

366) Kluth Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$15,900	\$4,200	\$20,100
Estimated variable manufacturing overhead cost per machine-hour	\$1.20	\$2.40	

During the most recent month, the company started and completed two jobs--Job C and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job M
Direct materials	\$ 15,600	\$ 8,600
Direct labor cost	\$ 25,100	\$ 8,300
Molding machine-hours	2,000	1,000
Customizing machine-hours	800	1,200

Required: Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling prices for Job C and for Job M. (**Do not round intermediate calculations.**)

367) Amason Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$102,400	\$66,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A950. The following data were recorded for this job:

Job A950:	Forming	Assembly
Machine-hours	50	20
Direct labor-hours	20	40

Direct materials	\$ 665	\$ 415
Direct labor cost	\$ 520	\$1,040

Required: Calculate the selling price for Job A950 if the company marks up its unit product costs by 30% to determine selling prices.

368) Dancel Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	17,000	14,000
Direct labor-hours	1,000	6,000
Total fixed manufacturing overhead cost	\$91,800	\$64,200
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.40

During the current month the company started and finished Job M565. The following data were recorded for this job:

Job M565:	Milling	Finishing
Machine-hours	70	20
Direct labor-hours	10	40
Direct materials	\$ 750	\$ 360
Direct labor cost	\$ 340	\$1,360

Required:a. Calculate the total amount of overhead applied to Job M565 in both departments.b. Calculate the total job cost for Job M565.c. Calculate the selling price for Job M565 if the company marks up its unit product costs by 20% to determine selling prices.

369) Pangle Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	16,000	12,000
Direct labor-hours	4,000	9,000
Total fixed manufacturing overhead cost	\$91,200	\$99,000
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job M109. The following data were recorded for this job:

Job M109:	Forming	Customizing
Machine-hours	50	30
Direct labor-hours	20	50
Direct materials	\$ 915	\$355
Direct labor cost	\$ 620	\$1,550

Required: Calculate the total job cost for Job M109.

370) Vasilopoulos Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$119,000	\$51,000
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job A182. The following data were recorded for this job:

Job A182:	Casting	Assembly
Machine-hours	50	20
Direct labor-hours	10	50
Direct materials	\$ 895	\$ 365
Direct labor cost	\$ 240	\$1,200

Required:a. Calculate the estimated total manufacturing overhead for the Casting Department.b. Calculate the estimated total manufacturing overhead for the Assembly Department.c. Calculate the predetermined overhead rate for the Casting Department.d. Calculate the predetermined overhead rate for the Assembly Department.e. Calculate the total amount of overhead applied to Job A182 in both departments.f. Calculate the total job cost for Job A182.g. Calculate the selling price for Job A182 if the company marks up its unit product costs by 20% to determine selling prices.

371) Hultquist Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	8,000	2,000	10,000
Estimated total fixed manufacturing overhead cost	\$16,800	\$7,400	\$24,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 3.00	\$ 6.00	

During the period, the company started and completed two jobs--Job C and Job L. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 14,900	\$ 8,600
Direct labor cost	\$ 21,800	\$ 8,800
Forming machine-hours	1,250	6,750
Customizing machine-hours	1,250	750

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job L. **(Do not round intermediate calculations.)**c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job L. **(Do not round intermediate calculations.)**d. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. **(Do not round intermediate calculations.)** e. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Forming department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Customizing department? **(Round your answer to 2 decimal places.)**g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job L? **(Do not round intermediate calculations.)**h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. **(Do not round intermediate calculations.)**

372) Hultquist Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	9,000	1,000	10,000
Estimated total fixed manufacturing overhead cost	\$50,400	\$2,600	\$53,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.70	\$ 2.10	

During the period, the company started and completed two jobs--Job C and Job L. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 15,100	\$ 6,900
Direct labor cost	\$ 20,800	\$ 8,500
Forming machine-hours	6,100	2,900
Customizing machine-hours	400	600

Required:a. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job L. **(Do not round intermediate calculations.)**c. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job L. **(Do not round intermediate calculations.)**d. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours and uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. **(Do not round intermediate calculations.)** e. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both departments. What is the *departmental* predetermined overhead rate in the Forming department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the *departmental* predetermined overhead rate in the Customizing department? **(Round your answer to 2 decimal places.)**g. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job L? **(Do not round intermediate calculations.)**h. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. **(Do not round intermediate calculations.)**

373) Carcana Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,200	\$8,800	\$13,000
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.90	

During the period, the company started and completed two jobs--Job E and Job G. Data concerning those two jobs follow:

	Job E	Job G
Direct materials	\$ 11,800	\$ 8,000
Direct labor cost	\$ 19,200	\$ 6,700
Machining machine-hours	700	300
Finishing machine-hours	1,600	2,400

Required:a. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both departments. What is the *departmental* predetermined overhead rate in the Machining department?b. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the *departmental* predetermined overhead rate in the Finishing department?c. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E?d. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job G? e. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job E.f. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job G.g. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. If both jobs were sold during the month, what was the company's cost of goods sold for the month?

374) Braegelmann Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	20,000	14,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$110,000	\$65,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job K246. The following data were recorded for this job:

Job K246:	Casting	Assembly
Machine-hours	60	30
Direct labor-hours	20	40
Direct materials	\$ 950	\$ 305
Direct labor cost	\$ 460	\$ 920

Required:a. Calculate the estimated total manufacturing overhead for the Casting Department.b. Calculate the estimated total manufacturing overhead for the Assembly Department.c. Calculate the predetermined overhead rate for the Casting Department.d. Calculate the predetermined overhead rate for the Assembly Department.e. Calculate the amount of overhead applied in the Casting Department to Job K246.f. Calculate the amount of overhead applied in the Assembly Department to Job K246.g. Calculate the total job cost for Job K246.h. Calculate the selling price for Job K246 if the company marks up its unit product costs by 40% to determine selling prices.

375) Matrejek Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	8,000	2,000	10,000
Estimated total fixed manufacturing overhead cost	\$36,800	\$4,800	\$41,600
Estimated variable manufacturing overhead cost per MH	\$ 1.60	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job D and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job K
Direct materials	\$15,600	\$6,900
Direct labor cost	\$19,100	\$8,700
Forming machine-hours	5,400	2,600
Customizing machine-hours	800	1,200

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job D.b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.c. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job D.d. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.

376) Harnett Corporation has two manufacturing departments--Molding and Assembly. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$29,000	\$13,500	\$42,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.20	\$ 2.30	

During the period, the company started and completed two jobs--Job E and Job M. Data concerning those two jobs follow:

	Job E	Job M
Direct materials	\$ 14,300	\$ 9,400
Direct labor cost	\$ 22,800	\$ 8,900
Molding machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job E. **(Do not round intermediate calculations.)**c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job E. **(Do not round intermediate calculations.)**d. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 60% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. **(Do not round intermediate calculations.)** e. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Molding department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Assembly department? **(Round your answer to 2 decimal places.)**g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E? **(Do not round intermediate calculations.)**h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 60% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. **(Do not round intermediate calculations.)**

377) Harnett Corporation has two manufacturing departments--Molding and Assembly. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Assembly	Total
Estimated total machine-hours (MHs)	4,000	6,000	10,000
Estimated total fixed manufacturing overhead cost	\$20,400	\$37,800	\$58,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 3.00	\$ 6.00	

During the period, the company started and completed two jobs--Job E and Job M. Data concerning those two jobs follow:

	Job E	Job M
Direct materials	\$ 13,700	\$ 8,000
Direct labor cost	\$ 21,200	\$ 8,100
Molding machine-hours	2,500	1,500
Assembly machine-hours	2,500	3,500

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job E. **(Do not round intermediate calculations.)**c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job E. **(Do not round intermediate calculations.)**d. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. **(Do not round intermediate calculations.)** e. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Molding department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Assembly department? **(Round your answer to 2 decimal places.)**g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E? **(Do not round intermediate calculations.)**h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. **(Do not round intermediate calculations.)**

378) Bulla Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	19,000	13,000
Direct labor-hours	2,000	9,000
Total fixed manufacturing overhead cost	\$98,800	\$84,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job K369. The following data were recorded for this job:

Job K369:	Machining	Customizing
Machine-hours	90	10
Direct labor-hours	20	50

Required: Calculate the total amount of overhead applied to Job K369 in both departments. (**Do not round intermediate calculations.**)

379) Bulla Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	18,000	20,000

Direct labor-hours	1,000	2,000
Total fixed manufacturing overhead cost	\$90,000	\$88,000
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 4.00

During the current month the company started and finished Job K369. The following data were recorded for this job:

Job K369:	Machining	Customizing
Machine-hours	70	40
Direct labor-hours	40	60

Required: Calculate the total amount of overhead applied to Job K369 in both departments. (**Do not round intermediate calculations.**)

380) Bierce Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$20,000	\$2,100	\$22,100
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.40	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Direct materials	\$ 12,800	\$ 7,900
Direct labor cost	\$ 24,700	\$ 6,400
Machining machine-hours	2,700	1,300
Finishing machine-hours	400	600

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job B. **(Do not round intermediate calculations.)**c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K. **(Do not round intermediate calculations. Round your answer to the nearest whole dollar amount.)**d. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Machining department? **(Round your answer to 2 decimal places.)**e. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Finishing department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job B? **(Do not round intermediate calculations.)**g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job K? **(Do not round intermediate calculations.)**

381) Bierce Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$15,600	\$21,600	\$37,200
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	\$ 5.00	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Direct materials	\$ 13,700	\$ 7,800
Direct labor cost	\$ 23,500	\$ 1,250
Machining machine-hours	4,000	2,000
Finishing machine-hours	500	3,500

Required:a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. **(Round your answer to 2 decimal places.)**b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job B. **(Do not round intermediate calculations.)**c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K. **(Do not round intermediate calculations. Round your answer to the nearest whole dollar amount.)**d. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Machining department? **(Round your answer to 2 decimal places.)**e. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Finishing department? **(Round your answer to 2 decimal places.)**f. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job B? **(Do not round intermediate calculations.)**g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job K? **(Do not round intermediate calculations.)**

382) Gercak Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	11,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$100,800	\$76,300
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job X560. The following data were recorded for this job:

Job X560	Forming	Assembly
Machine-hours	50	30
Direct labor-hours	30	40

Required:a. Calculate the estimated total manufacturing overhead for the Assembly Department.b. Calculate the predetermined overhead rate for the Forming Department.c. Calculate the total amount of overhead applied to Job X560 in both departments.

383) Sonneborn Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$5,100	\$23,400	\$28,500
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.50	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job D and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job G
Direct materials	\$ 14,700	\$ 9,100

Direct labor cost	\$ 18,800	\$ 8,300
Molding machine-hours	700	300
Customizing machine-hours	3,600	5,400

Required:a. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job D.b. Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job G.c. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job D?d. Assume that the company uses *departmental* predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job G?

384) Rocher Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	13,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$124,100	\$52,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.00

During the current month the company started and finished Job A394. The following data were recorded for this job:

Job A394	Casting	Finishing
Machine-hours	80	20
Direct labor-hours	10	40

Required:a. Calculate the estimated total manufacturing overhead for the Casting Department.b. Calculate the predetermined overhead rate for the Casting Department.c. Calculate the amount of overhead applied in the Casting Department to Job A394.

385) Marius Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	18,000	12,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$118,800	\$57,600
Variable manufacturing overhead per machine-hour	\$ 2.20	
Variable manufacturing overhead per direct labor-hour		\$ 4.00

During the current month the company started and finished Job K895. The following data were recorded for this job:

Job K895:	Casting	Finishing
Machine-hours	70	30
Direct labor-hours	20	60

Required:a. Calculate the estimated total manufacturing overhead for the Finishing Department.b. Calculate the predetermined overhead rate for the Finishing Department.c. Calculate the amount of overhead applied in the Finishing Department to Job K895.

386) Madole Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	19,000	12,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$119,700	\$67,200
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 4.20

During the current month the company started and finished Job K973. The following data were recorded for this job:

Job K973:	Forming	Customizing
Machine-hours	50	20
Direct labor-hours	20	50

Required:a. Calculate the estimated total manufacturing overhead for the Forming Department.
 b. Calculate the predetermined overhead rate for the Customizing Department.
 c. Calculate the total overhead applied to Job K973 in both departments.

387) Sullen Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Predetermined overhead rate	\$ 14.30 per machine-hour
Estimated total fixed manufacturing overhead from the beginning of the	\$572,000

year	
Estimated activity level from the beginning of the year	40,000 machine-hours
Actual total fixed manufacturing overhead	\$605,000
Actual activity level	36,700 machine-hours

Required:Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

388) Levi Corporation uses a predetermined overhead rate of \$23.40 per direct labor-hour. This predetermined overhead rate was based on estimated total fixed manufacturing overhead of \$702,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$738,000 and 27,100 total direct labor-hours during the period.**Required:**Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

389) Henkes Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 66,000 labor-hours. The estimated variable manufacturing overhead was \$8.41 per labor-hour and the estimated total fixed manufacturing overhead was \$1,533,180. The actual labor-hours for the year turned out to be 68,400 labor-hours.**Required:**Compute the company's predetermined overhead rate for the recently completed year.

390) Mccaughan Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated labor-hours	37,000
Estimated variable manufacturing overhead	\$ 4.43per labor-hour
Estimated total fixed manufacturing overhead	\$705,220
Actual labor-hours for the year	32,100

Required: Compute the company's predetermined overhead rate for the recently completed year.

391) Moscone Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 78,000 labor-hours. The estimated variable manufacturing overhead was \$9.99 per labor-hour and the estimated total fixed manufacturing overhead was \$985,920.**Required:** Compute the company's predetermined overhead rate.

392) Lightner Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	50,000
Estimated variable manufacturing overhead	\$ 8.82per mach
Estimated total fixed manufacturing overhead	\$1,077,000

Required: Compute the company's predetermined overhead rate.

393) Job 243 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$48,870
Direct labor-hours	405labor-hou
Direct labor wage rate	\$ 13 per labor
Machine-hours	486machine-h
Number of units completed	2,700units

The company applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$11 per machine-hour. **Required:** Compute the unit product cost that would appear on the job cost sheet for this job.

394) Job 652 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$59,400
Direct labor-hours	1,224 direct l
Direct labor wage rate	\$ 15per dire
Number of units completed	3,600units

The company applies manufacturing overhead on the basis of direct labor-hours. The predetermined overhead rate is \$35 per direct labor-hour. **Required:** Compute the unit product cost that would appear on the job cost sheet for this job.

395) Werger Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, W82R and L48S, about which it has provided the following data:

	W82R	L48S
Direct materials per unit	\$ 22.80	\$ 56.60
Direct labor per unit	\$ 26.10	\$ 60.70
Direct labor-hours per unit	0.70	2.40
Annual production (units)	34,400	20,600

The company's estimated total manufacturing overhead for the year is \$3,293,458 and the company's estimated total direct labor-hours for the year is 73,520. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Supporting direct labor (direct labor-hours)	\$ 808,720		
Setting up machines (setups)	861,498		
Parts administration (part types)	1,623,240		
Total	\$ 3,293,458		
Activities	W82R	L48S	Total
Supporting direct labor	24,080	49,440	73,520
Setting up machines	861	3,490	4,351
Parts administration	2,090	1,250	3,340

Required:a. Determine the unit product cost of each of the company's two products under the traditional costing system.b. Determine the unit product cost of each of the company's two products under activity-based costing system.**(For all requirements, round your intermediate calculations and final answers to 2 decimal places.)**

396) Bullie Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, D31X and U75X, about which it has provided the following data:

	D31X	U75X
Direct materials per unit	\$ 29.20	\$ 47.40
Direct labor per unit	\$ 1.10	\$ 23.10
Direct labor-hours per unit	0.10	2.10
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$1,147,650 and the company's estimated total direct labor-hours for the year is 35,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 140,000		
Preparing batches (batches)	241,150		
Axial milling (machine-hours)	766,500		
Total	<u><u>\$ 1,147,650</u></u>		
	D31X	U75X	Total
Assembling products	3,500	31,500	35,000
Preparing batches	560	1,295	1,855
Axial milling	1,540	1,015	2,555

Required:a. Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system.b. Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

397) Torri Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, B40W and C63J, about which it has provided the following data:

	B40W	C63J
Direct materials per unit	\$ 34.90	\$ 63.70
Direct labor per unit	\$ 20.80	\$ 62.40
Direct labor-hours per unit	0.80	2.40
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,656,000 and the company's estimated total direct labor-hours for the year is 64,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 1,216,000		
Preparing batches (batches)	480,000		
Milling (machine-hours)	960,000		
Total	\$ 2,656,000		
Activities	B40W	C63J	Total
Assembling products	28,000	36,000	64,000
Preparing batches	2,304	2,496	4,800
Milling	1,088	2,112	3,200

Required:a. Determine the unit product cost of each of the company's two products under the traditional costing system.b. Determine the unit product cost of each of the company's two products under activity-based costing system.

398) Cabigas Corporation manufactures two products, Product C and Product D. The company estimated it would incur \$167,140 in manufacturing overhead costs during the current period. Overhead currently is applied to the products on the basis of direct labor-hours. Data concerning the current period's operations appear below:

	Product C	Product D
Estimated volume	2,000 units	2,700 units
Direct labor-hours per unit	2.00 hours	0.80 hour
Direct materials cost per unit	\$ 21.50	\$ 24.10
Direct labor cost per unit	\$ 24.00	\$ 9.60

Required:a. Compute the predetermined overhead rate under the current method, and determine the unit product cost of each product for the current year.b. The company is considering using an activity-based costing system to compute unit product costs for external financial reports instead of its traditional system based on direct labor-hours. The activity-based costing system would use three activity cost pools. Data relating to these activities for the current period are given below:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product C	Product D	Total
Machine setups	\$ 13,630	130	160	290
Purchase orders	85,750	750	1,000	1,750
General factory	67,760	4,000	2,160	6,160
	\$ 167,140			

Determine the unit product cost of each product for the current period using the activity-based costing approach. General factory overhead is allocated based on direct labor-hours.

399) Welk Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, H16Z and P25P, about which it has provided the following data:

	H16Z	P25P
Direct materials per unit	\$ 10.20	\$ 50.50
Direct labor per unit	\$ 8.40	\$ 25.20
Direct labor-hours per unit	0.40	1.20
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,464,480 and the company's estimated total direct labor-hours for the year is 24,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Supporting direct labor (direct labor-hours)	\$ 552,000		
Setting up machines (setups)	132,480		
Parts administration (part types)	780,000		
Total	<u>\$ 1,464,480</u>		
	H16Z	P25P	Total
Supporting direct labor	12,000	12,000	24,000
Setting up machines	864	240	1,104
Parts administration	600	960	1,560

Required:a. Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system. b. Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

400) Werger Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, W82R and L48S, about which it has provided the following data:

	W82R	L48S
Direct materials per unit	\$ 11.50	\$ 62.90
Direct labor per unit	\$ 2.00	\$ 13.00
Direct labor-hours per unit	0.20	1.30
Annual production (units)	45,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,521,960 and the company's estimated total direct labor-hours for the year is 22,000. The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Supporting direct labor (direct labor-hours)	\$ 352,000		
Setting up machines (setups)	201,960		
Parts administration (part types)	968,000		
Total	\$ 1,521,960		
Activities	W82R	L48S	Total
Supporting direct labor	9,000	13,000	22,000
Setting up machines	814	374	1,188
Parts administration	924	1,012	1,936

Required:a. Determine the unit product cost of each of the company's two products under the traditional costing system.b. Determine the unit product cost of each of the company's two products under activity-based costing system.

401) The management of Michaeli Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	43,000 machine-hours
Capacity	50,000 machine-hours
Actual activity for the year	45,400 machine-hours
Manufacturing overhead (all fixed)	\$989,000 per year

Required: Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

402) The management of Michaeli Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	31,000 machine-hours
Capacity	44,000 machine-hours
Actual activity for the year	32,500 machine-hours
Manufacturing overhead (all fixed)	\$778,800 per year

Required: Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

403) Marder Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$24,500
Capacity of the jointer	250 hours

Actual results:

Sales	\$71,706
Direct materials	\$12,500
Direct labor	\$17,900
Actual total fixed manufacturing overhead	\$24,500
Selling and administrative expense	\$ 9,700
Actual hours of jointer use	200 hours

Required:a. Calculate the predetermined overhead rate based on capacity.b. Calculate the manufacturing overhead applied.c. Determine the Gross Margin for the month.d. Calculate the cost of unused capacity.

404) Knipple Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$24,288
Capacity of the bandsaw	240 hours

Actual results:

Sales	\$71,473
Direct materials	\$10,400
Direct labor	\$17,300

Actual total fixed manufacturing overhead	\$24,288
Selling and administrative expense	\$ 9,100
Actual hours of bandsaw use	230 hours

Required: Prepare an income statement following the Example in Appendix 2B in which any cost of unused capacity is directly recorded on the income statement as a period expense.

405) Danaher Woodworking Corporation produces fine furniture. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$22,701
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$22,701
Actual hours of lathe use	210 hours

Required: a. Calculate the predetermined overhead rate based on capacity. b. Calculate the manufacturing overhead applied. c. Calculate the cost of unused capacity.

406) Danaher Woodworking Corporation produces fine furniture. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$21,580
Capacity of the lathe	260 hours

Actual results:

Actual total fixed manufacturing overhead	\$21,580
Actual hours of lathe use	210 hours

Required:a. Calculate the predetermined overhead rate based on capacity.b. Calculate the manufacturing overhead applied.c. Calculate the cost of unused capacity.

407) The management of Kotek Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 8,000 machine-hours. In addition, capacity is 10,000 machine-hours and the actual activity for the year is 8,700 machine-hours. All of the manufacturing overhead is fixed and is \$6,400 per year. Job L77S, which required 220 machine-hours, is one of the jobs worked on during the year.**Required:**a. Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.b. Determine how much overhead would be applied to Job L77S if the predetermined overhead rate is based on activity at capacity.c. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

408) The management of Schneider Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 42,000 machine-hours. In addition, capacity is 46,000 machine-hours and the actual activity for the year is 43,000 machine-hours. All of the manufacturing overhead is fixed and is \$734,160 per year.**Required:**a. Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.b. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

409) The management of Bouyer Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 34,000 machine-hours. In addition, capacity is 37,000 machine-hours and the actual activity for the year is 34,700 machine-hours. All of the manufacturing overhead is fixed and is \$377,400 per year.**Required:**Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

410) The management of Buelow Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year

76,000 machine-hours

Capacity	94,000 machine-hours
Actual activity for the year	82,800 machine-hours
Manufacturing overhead (all fixed)	\$5,572,320 per year

Job Q58A, which required 130 machine-hours, is one of the jobs worked on during the year. **Required:** a. Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year. b. Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on estimated activity for the upcoming year. c. Determine the predetermined overhead rate if the predetermined overhead rate is based on the activity at capacity. d. Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on activity at capacity. e. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.
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411) The management of Wrights Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	15,000 machine-hours
Capacity	18,000 machine-hours
Actual activity for the year	15,800 machine-hours
Manufacturing overhead (all fixed)	\$43,200 per year

Required: a. Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year. b. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

Answer Key

Test name: chapter 2

- 1) FALSE
- 2) TRUE
- 3) TRUE
- 4) FALSE
- 5) FALSE
- 6) FALSE
- 7) TRUE
- 8) FALSE
- 9) FALSE
- 10) FALSE
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- 21) TRUE
- 22) TRUE
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- 24) TRUE
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- 29) C
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- 38) B
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- 41) C
- 42) A
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- 45) B
- 46) B
- 47) A
- 48) D
- 49) B
- 50) A
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- 52) A
- 53) A
- 54) B
- 55) D
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- 57) A
- 58) A
- 59) C
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- 61) C
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- 63) B
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- 71) A
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327) D

328) D

329) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$144,000 + (\$4.00 per machine-hour × 30,000 machine-hours) = \$144,000 + \$120,000 = \$264,000

330) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$287,000 + (\$3.50 per machine-hour × 70,000 machine-hours) = \$287,000 + \$245,000 = \$532,000
b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$532,000 ÷ 70,000 machine-hours = \$7.60 per machine-hour

331) Estimated total manufacturing overhead = \${{[a(3)]:#,###}} + (\${{[a(2)]:#,###.00}} per labor-hour × {{[a(1)]:#,###}} labor-hours) = \${{[a(5)]:#,###}}
Predetermined overhead rate = \${{[a(5)]:#,###}} ÷ {{[a(1)]:#,###}} labor-hours = \${{[a(6)]:#,###.00}} per labor-hour

332) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$390,000 + (\$3.60 per machine-hour × 50,000 machine-hours) = \$390,000 + \$180,000 = \$570,000
Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$570,000 ÷ 50,000 machine-hours = \$11.40 per machine-hour

333) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = \$248,000 + (\$3.80 per machine-hour \times 40,000 machine-hours) = \$248,000 + \$152,000 = \$400,000
Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = \$400,000 \div 40,000 machine-hours = \$10.00 per machine-hour

334) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = \$152,000 + (\$3.10 per machine-hour \times 40,000 machine-hours) = \$152,000 + \$124,000 = \$276,000

335) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = \$31,000 + (\$2.50 per direct labor-hour \times 10,000 direct labor-hours) = \$31,000 + \$25,000 = \$56,000
b. Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = \$56,000 \div 10,000 direct labor-hours = \$5.60 per direct labor-hour

336) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \${{[a(2)]:#,###}} + (\${{[a(3)]:#,###.00}} per direct labor-hour × {{[a(1)]:#,###}} direct labor-hours) = \${{[a(2)]:#,###}} + \${{[a(8)]:#,###}} = \${{[a(5)]:#,###}} Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \${{[a(5)]:#,###}} ÷ {{[a(1)]:#,###}} direct labor-hours = \${{[a(6)]:#,###.00}} per direct labor-hour Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \${{[a(6)]:#,###.00}} per direct labor-hour × {{[a(4)]:#,###}} direct labor-hours = \${{[a(7)]:#,###}}

337) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$2.30 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$184,000 = \$344,000 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$344,000 ÷ 80,000 direct labor-hours = \$4.30 per direct labor-hour Overhead applied to a particular job =

Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.30 per direct labor-hour × 120 direct labor-hours = \$516

338)

Estimated total fixed manufacturing overhead (a)	\$358,000
Estimated activity level (b)	20,000 machine-hours
Predetermined overhead rate (a) ÷ (b)	\$ 17.90 per machine-hour
Actual activity level	18,300 machine-hours
Manufacturing overhead applied	\$327,570

339) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = $\$96,000 + (\$3.30 \text{ per direct labor-hour} \times 60,000 \text{ direct labor-hours}) = \$96,000 + \$198,000 = \$294,000$ b. Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = $\$294,000 \div 60,000 \text{ direct labor-hours} = \4.90 per direct labor-hour c. Overhead applied to a particular job = Predetermined overhead rate \times Amount of the allocation base incurred by the job = $\$4.90 \text{ per direct labor-hour} \times 100 \text{ direct labor-hours} = \490

340) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = $\$50,000 + (\$3.90 \text{ per machine-hour} \times 10,000 \text{ machine-hours}) = \$50,000 + \$39,000 = \$89,000$ Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = $\$89,000 \div 10,000 \text{ machine-hours} = \8.90 per machine-hour Overhead applied to a particular job = Predetermined overhead rate \times Amount of the allocation base incurred by the job = $\$8.90 \text{ per machine-hour} \times 160 \text{ machine-hours} = \$1,424$

341) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = $\$342,000 + (\$2.40 \text{ per direct labor-hour} \times 60,000 \text{ direct labor-hours}) = \$342,000 + \$144,000 = \$486,000$ b. Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = $\$486,000 \div 60,000 \text{ direct labor-hours} = \8.10 per direct labor-hour c. Overhead applied to a particular job = Predetermined overhead rate \times Amount of the allocation base incurred by the job = $\$8.10 \text{ per direct labor-hour} \times 90 \text{ direct labor-hours} = \729

342)

Estimated total fixed manufacturing overhead (a)	\$ 114,000
Estimated activity level (b)	10,000 machine-hours
Predetermined overhead rate (a) ÷ (b)	\$ 11.40 per machine-hour
Actual activity level	9,400 machine-hours
Manufacturing overhead applied	\$ 107,160

343) The first step is to calculate the estimated total overhead costs in the two departments. Casting

Estimated fixed manufacturing overhead	\$11,600
Estimated variable manufacturing overhead (\$1.90 per machine-hour × 2,000 machine-hours)	3,800
Estimated total manufacturing overhead cost	\$15,400

Customizing

Estimated fixed manufacturing overhead	\$ 7,200
Estimated variable manufacturing overhead (\$2.80 per machine-hour × 3,000 machine-hours)	8,400
Estimated total manufacturing overhead cost	\$15,600

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$15,400 + \$15,600 = \$31,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$31,000
Estimated total machine hours	5,000 machine-hours
Predetermined overhead rate	\$ 6.20 per machine-hour

The overhead applied to Job F is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.20 per machine-hour × (1,400 machine-hours + 1,200 machine-hours) = \$6.20 per machine-hour × (2,600 machine-hours) = \$16,120 The overhead applied to Job L is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.20 per machine-hour × (600 machine-hours + 1,800 machine-hours) = \$6.20 per machine-hour × (2,400 machine-hours) = \$14,880 Job F's manufacturing cost:

Direct materials	\$ 10,600
Direct labor cost	24,400
Manufacturing overhead applied	16,120

Total manufacturing cost	\$ 51,120
<hr/>	
Job L's manufacturing cost:	
Direct materials	\$ 6,600
Direct labor cost	8,600
Manufacturing overhead applied	14,880
Total manufacturing cost	<u>\$30,080</u>

The selling price for Job F:

Total manufacturing cost	\$ 51,120
Markup (50%)	25,560
Selling price	<u>\$ 76,680</u>

The selling price for Job L:

Total manufacturing cost	\$ 30,080
Markup (50%)	15,040
Selling price	<u>\$ 45,120</u>

344) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$460,000 + (\$3.10 per machine-hour × 50,000 machine-hours) = \$460,000 + \$155,000 = \$615,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$615,000 ÷ 50,000 machine-hours = \$12.30 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.30 per machine-hour × 150 machine-hours = \$1,845b.

Direct materials	\$ 740
Direct labor	6,000
Manufacturing overhead applied	1,845
Total cost of Job P647	<u>\$8,585</u>

C.

Total cost of Job P647 (a)	\$ 8,585
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$171.70

345) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \${{[a(2)]:#,###}} + (\${{[a(3)]:#,###.00}} per direct labor-hour × {{[a(1)]:#,###}} direct labor-hours) = \${{[a(2)]:#,###}} + \${{[a(16)]:#,###}} = \${{[a(9)]:#,###}} Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \${{[a(9)]:#,###}} ÷ {{[a(1)]:#,###}} direct labor-hours = \${{[a(10)]:#,###.00}} per direct labor-hour Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \${{[a(10)]:#,###.00}} per direct labor-hour × {{[a(5)]:#,###}} direct labor-hours = \${{[a(11)]:#,###}}

Direct materials	\$ {{[a(6)]:#,###}}
Direct labor	{{[a(7)]:#,###}}
Manufacturing overhead applied	{{[a(11)]:#,###}}
Total cost of Job X941	<u><u>\${{[a(12)]:#,###}}</u></u>

Total cost of Job X941 (a)	\$ {{[a(12)]:#,###}}
Number of units (b)	{{[a(4)]:#,###}}
Unit product cost (a) ÷ (b)	\${{[a(13)]:#,###.00}}

Unit product cost for Job X941	\$ {{[a(13)]:#,###.00}}
Markup ({{[a(8)]:#,###}}% × \${{[a(13)]:#,###.00}})	{{[a(14)]:#,###.00}}
Selling price	<u><u>\$ {{[a(15)]:#,###.00}}</u></u>

346) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$182,000 + (\$2.50 per direct labor-hour × 20,000 direct labor-hours) = \$182,000 + \$50,000 = \$232,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$232,000 ÷ 20,000 direct labor-hours = \$11.60 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.60 per direct labor-hour × 250 direct labor-hours = \$2,900

Direct materials	\$ 740
Direct labor	6,500
Manufacturing overhead applied	2,900
Total cost of Job X941	\$10,140

Total cost of Job X941 (a)	\$ 10,140
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 202.80

Unit product cost for Job X941	\$ 202.80
Markup (20% × \$202.80)	40.56
Selling price	\$ 243.36

347) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$630,000 + (\$3.40 per machine-hour × 70,000 machine-hours) = \$630,000 + \$238,000 = \$868,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$868,000 ÷ 70,000 machine-hours = \$12.40 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.40 per machine-hour × 200 machine-hours = \$2,480

Direct materials	\$ 670
Direct labor	7,800
Manufacturing overhead applied	2,480
Total cost of Job X159	\$10,950

348) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$156,000 + (\$2.20 per machine-hour × 40,000 machine-hours) = \$156,000 + \$88,000 = \$244,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$244,000 ÷ 40,000 machine-hours = \$6.10 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.10 per machine-hour × 60 machine-hours = \$366

Direct materials	\$ 725
Direct labor	1,680
Manufacturing overhead applied	366
Total cost of Job M242	\$2,771

b.

Total cost of Job M242 (a)	\$ 2,771
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$138.55

349) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$71,000 + (\$2.50 per machine-hour × 10,000 machine-hours) = \$71,000 + \$25,000 = \$96,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$96,000 ÷ 10,000 machine-hours = \$9.60 per machine-hour
 b. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.60 per machine-hour × 60 machine-hours = \$576
 c.

Direct materials	\$ 870
Direct labor	2,400
Manufacturing overhead applied	576
Total cost of Job P512	\$3,846

d.

Total cost of Job P512 (a)	\$ 3,846
Number of units (b)	30
Unit product cost (a) ÷ (b)	\$128.20

350) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$136,000 + (\$2.90 per machine-hour × 40,000 machine-hours) = \$136,000 + \$116,000 = \$252,000
 b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$252,000 ÷ 40,000 machine-hours = \$6.30 per machine-hour.
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.30 per machine-hour × 300 machine-hours = \$1,890
 d.

Direct materials	\$ 585
Direct labor	7,200
Manufacturing overhead applied	1,890
Total cost of Job A290	\$9,675

351) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$342,000 + (\$2.70 per machine-hour × 60,000 machine-hours) = \$342,000 + \$162,000 = \$504,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$504,000 ÷ 60,000 machine-hours = \$8.40 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.40 per machine-hour × 140 machine-hours = \$1,176

Direct materials	\$ 945
Direct labor	2,800
Manufacturing overhead applied	1,176
Total cost of Job M238	\$4,921

352) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.60 per direct labor-hour × 10,000 direct labor-hours) = \$96,000 + \$36,000 = \$132,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$132,000 ÷ 10,000 direct labor-hours = \$13.20 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.20 per direct labor-hour × 200 direct labor-hours = \$2,640
 b.

Direct materials	\$ 540
Direct labor	6,400
Manufacturing overhead applied	2,640
Total cost of Job A735	\$9,580

c.

Total cost of Job A735 (a)	\$ 9,580
Number of units (b)	40

Unit product cost (a) ÷ (b) \$ 239.50

353) a. The first step is to calculate the estimated total overhead costs in the two departments. **Molding**

Estimated fixed manufacturing overhead	\$ 21,000
Estimated variable manufacturing overhead (\$1.50 per MH × 5,000 MHs)	7,500
Estimated total manufacturing overhead cost	\$ 28,500

Customizing

Estimated fixed manufacturing overhead	\$ 14,000
Estimated variable manufacturing overhead (\$2.40 per MH × 5,000 MHs)	12,000
Estimated total manufacturing overhead cost	\$ 26,000

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$28,500 + \$26,000 = \$54,500) to calculate the *plantwide* predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$54,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$5.45 per MH

b. The overhead applied to Job F is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$5.45 per MH × (3,400 MHs + 2,000 MHs) = \$5.45 per MH × (5,400 MHs) = \$29,430
 c. The overhead applied to Job K is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$5.45 per MH × (1,600 MHs + 3,000 MHs) = \$5.45 per MH × (4,600 MHs) = \$25,070
 d. Job F's manufacturing cost:

Direct materials	\$ 12,700
Direct labor cost	19,100
Manufacturing overhead applied	29,430
Total manufacturing cost	\$ 61,230

e. Job K's manufacturing cost:

Direct materials	\$ 6,400
Direct labor cost	7,900
Manufacturing overhead applied	25,070
	\$ 39,370

Total manufacturing cost	\$39,370
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f. The selling price for Job F:

Total manufacturing cost	\$ 61,230
Markup (30%)	18,369
Selling price	<u>\$ 79,599</u>

g. The selling price for Job K:

Total manufacturing cost	\$ 39,370
Markup (30%)	11,811
Selling price	<u>\$ 51,181</u>

h.

Total manufacturing cost assigned to Job F	\$ 61,230
Total manufacturing cost assigned to Job K	39,370
Cost of goods sold	<u>\$100,600</u>

354) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$308,000 + (\$2.10 per machine-hour × 70,000 machine-hours) = \$308,000 + \$147,000 = \$455,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 100 machine-hours = \$650

Direct materials	\$ 555
Direct labor	2,700
Manufacturing overhead applied	650
Total cost of Job M556	<u>\$3,905</u>

b.

Total cost of Job M556 (a)	\$ 3,905
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 78.10

355) a. The first step is to calculate the estimated total overhead costs in the two departments. Casting

Estimated fixed manufacturing overhead	\$ 18,000
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Estimated variable manufacturing overhead (\$1.50 per machine-hour × 4,000 machine-hours)	6,000
Estimated total manufacturing overhead cost	<u>\$ 24,000</u>

Finishing

Estimated fixed manufacturing overhead	\$ 18,000
Estimated variable manufacturing overhead (\$2.30 per machine-hour × 6,000 machine-hours)	13,800
Estimated total manufacturing overhead cost	<u>\$ 31,800</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,000 + \$31,800 = \$55,800) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$55,800
Estimated total machine hours	10,000 machine-hours
Predetermined overhead rate	\$ 5.58 per machine-hour

The overhead applied to Job D is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$5.58 per machine-hour × (2,700 machine-hours + 2,400 machine-hours) = \$5.58 per machine-hour × (5,100 machine-hours) = \$28,458 Job D's manufacturing cost:

Direct materials	\$ 14,300
Direct labor cost	21,700
Manufacturing overhead applied	28,458
Total manufacturing cost	<u>\$ 64,458</u>

b. The overhead applied to Job J is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$5.58 per machine-hour × (1,300 machine-hours + 3,600 machine-hours) = \$5.58 per machine-hour × (4,900 machine-hours) = \$27,342 Job J's manufacturing cost:

Direct materials	\$ 6,800
Direct labor cost	8,800
Manufacturing overhead applied	27,342
Total manufacturing cost	<u>\$42,942</u>

356) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$130,000 + (\$3.00 per machine-hour × 20,000 machine-hours) = \$130,000 + \$60,000 = \$190,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$190,000 ÷ 20,000 machine-hours = \$9.50 per machine-hour
 b. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per machine-hour × 30 machine-hours = \$285c.

Direct materials	\$ 775
Direct labor	1,170
Manufacturing overhead applied	285
Total cost of Job K789	\$2,230

d.

Total cost of Job K789 (a)	\$ 2,230
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$223.00

357) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.90 per machine-hour × 30,000 machine-hours) = \$252,000 + \$87,000 = \$339,000
 b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$339,000 ÷ 30,000 machine-hours = \$11.30 per machine-hour
 c. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.30 per machine-hour × 210 machine-hours = \$2,373d.

Direct materials	\$ 665
Direct labor	6,720
Manufacturing overhead applied	2,373
Total cost of Job T506	\$9,758

e.

Total cost of Job T506 (a)	\$ 9,758
Number of units (b)	70
Unit product cost (a) ÷ (b)	\$139.40

f.

Unit product cost for Job T506	\$ 139.40
Markup (20% × \$139.40)	27.88
Selling price	<u>\$ 167.28</u>

358) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$76,000 + (\$2.10 per direct labor-hour × 10,000 direct labor-hours) = \$76,000 + \$21,000 = \$97,000
b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$97,000 ÷ 10,000 direct labor-hours = \$9.70 per direct labor-hour.
Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.70 per direct labor-hour × 270 direct labor-hours = \$2,619
d.

Direct materials	\$ 590
Direct labor	6,480
Manufacturing overhead applied	2,619
Total cost of Job X701	<u>\$9,689</u>

359) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base \times Estimated total amount of the allocation base) = \$258,000 + (\$2.00 per direct labor-hour \times 30,000 direct labor-hours) = \$258,000 + \$60,000 = \$318,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost \div Estimated total amount of the allocation base = \$318,000 \div 30,000 direct labor-hours = \$10.60 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate \times Amount of the allocation base incurred by the job = \$10.60 per direct labor-hour \times 250 direct labor-hours = \$2,650

Direct materials	\$ 645
Direct labor	10,000
Manufacturing overhead applied	2,650
Total cost of Job P660	<u>\$13,295</u>

Total cost of Job P660 (a)	\$ 13,295
Number of units (b)	50
Unit product cost (a) \div (b)	\$ 265.90

Unit product cost for Job P660	\$ 265.90
Markup (20% \times \$265.90)	53.18
Selling price	<u>\$ 319.08</u>

360) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$215,000 + (\$3.80 per machine-hour × 50,000 machine-hours) = \$215,000 + \$190,000 = \$405,000
 b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$405,000 ÷ 50,000 machine-hours = \$8.10 per machine-hour.
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.10 per machine-hour × 240 machine-hours = \$1,944
 d.

Direct materials	\$ 735
Direct labor	8,880
Manufacturing overhead applied	1,944
Total cost of Job T496	\$11,559

e.

Total cost of Job T496 (a)	\$ 11,559
Number of units (b)	80
Unit product cost (a) ÷ (b)	\$ 144.49

361) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$525,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$525,000 + \$161,000 = \$686,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$686,000 ÷ 70,000 machine-hours = \$9.80 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.80 per machine-hour × 80 machine-hours = \$784

Direct materials	\$ 630
Direct labor	2,080
Manufacturing overhead applied	784
Total cost of Job P987	\$3,494

Total cost of Job P987 (a)	\$ 3,494
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$174.70

362) Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$238,000 + (\$2.70 per direct labor-hour × 70,000 direct labor-hours) = \$238,000 + \$189,000 = \$427,000
Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$427,000 ÷ 70,000 direct labor-hours = \$6.10 per direct labor-hour
Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.10 per direct labor-hour × 200 direct labor-hours = \$1,220

Direct materials	\$ 630
Direct labor	4,800
Manufacturing overhead applied	1,220
Total cost of Job P873	<u>\$6,650</u>

Total cost of Job P873 (a)	\$ 6,650
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$133.00

363) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$88,000 + (\$3.20 per machine-hour × 10,000 machine-hours) = \$88,000 + \$32,000 = \$120,000
 b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$120,000 ÷ 10,000 machine-hours = \$12.00 per machine-hour.
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.00 per machine-hour × 150 machine-hours = \$1,800
 d.

Direct materials	\$ 580
Direct labor	3,900
Manufacturing overhead applied	1,800
Total cost of Job K418	\$6,280

e.

Total cost of Job K418 (a)	\$ 6,280
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$125.60

f.

Unit product cost for Job K418	\$ 125.60
Markup (30% × \$125.60)	37.68
Selling price	\$ 163.28

364) a. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$91,000 + (\$2.40 per machine-hour × 10,000 machine-hours) = \$91,000 + \$24,000 = \$115,000
 b. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$115,000 ÷ 10,000 machine-hours = \$11.50 per machine-hour.
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.50 per machine-hour × 120 machine-hours = \$1,380
 d.

Direct materials	\$ 645
Direct labor	3,720
Manufacturing overhead applied	1,380
Total cost of Job K373	<u><u>\$5,745</u></u>

e.

Total cost of Job K373 (a)	\$ 5,745
Number of units (b)	60
Unit product cost (a) ÷ (b)	\$ 95.75

365) Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\${{[a(2)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(3)]:#,###.00}} per machine-hour × {{[a(1)]:#,###}} machine-hours)	{{[a(34)]:#,###}}
Estimated total manufacturing overhead cost (a)	<u>\${{[a(18)]:#,###}}</u>
Estimated total machine-hours (b)	{{[a(1)]:#,###}} machine-hour
Departmental predetermined overhead rate (a) ÷ (b)	\${{[a(19)]:#,###.00}} per mach

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\${{[a(5)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(6)]:#,###.00}} per machine-hour × {{[a(4)]:#,###}} machine-hours)	{{[a(35)]:#,###}}
Estimated total manufacturing overhead cost (a)	<u>\${{[a(22)]:#,###}}</u>
Estimated total machine-hours (b)	{{[a(4)]:#,###}} machine-hour
Departmental predetermined overhead rate (a) ÷ (b)	\${{[a(23)]:#,###.00}} per mach

Manufacturing overhead applied to Job C:

Molding (\${{[a(19)]:#,###.00}} per machine-hour × {{[a(13)]:#,###}} machine-hours)	\$ {{[a(20)]:#,###}}
Customizing (\${{[a(23)]:#,###.00}} per machine-hour × {{[a(15)]:#,###}} machine-hours)	{{[a(21)]:#,###}}
Total manufacturing overhead applied	<u><u>\$ {{[a(26)]:#,###}}</u></u>

Manufacturing overhead applied to Job M:

Molding (\${{[a(19)]:#,###.00}} per machine-hour × {{[a(14)]:#,###}} machine-hours)	\$ {{[a(24)]:#,###}}
Customizing (\${{[a(23)]:#,###.00}} per machine-hour × {{[a(16)]:#,###}} machine-hours)	{{[a(25)]:#,###}}
Total manufacturing overhead applied	<u><u>\$</u></u>

{{[a(27)]:#,###}}

The selling price for Job C would be calculated as follows:

Direct materials	\$ {{[a(9)]:#,###}}
Direct labor cost	{{[a(11)]:#,###}}
Manufacturing overhead applied	{{[a(26)]:#,###}}
Total manufacturing cost	<u>\$ {{[a(28)]:#,###}}</u>
Markup ({{[a(17)]:#,###}}%)	{{[a(29)]:#,###}}
Selling price	<u>\$ {{[a(30)]:#,###}}</u>

The selling price for Job M would be calculated as follows:

Direct materials	\$ {{[a(10)]:#,###}}
Direct labor cost	{{[a(12)]:#,###}}
Manufacturing overhead applied	{{[a(27)]:#,###}}
Total manufacturing cost	<u>\$ {{[a(31)]:#,###}}</u>
Markup ({{[a(17)]:#,###}}%)	{{[a(32)]:#,###}}
Selling price	<u>\$ {{[a(33)]:#,###}}</u>

366) Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$15,900
Estimated variable manufacturing overhead (\$1.20 per machine-hour × 3,000 machine-hours)	3,600
Estimated total manufacturing overhead cost (a)	<u>\$19,500</u>
Estimated total machine-hours (b)	3,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$6.50 per machine-hour

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$4,200
Estimated variable manufacturing overhead (\$2.40 per machine-hour × 2,000 machine-hours)	4,800
Estimated total manufacturing overhead cost (a)	<u>\$9,000</u>
Estimated total machine-hours (b)	2,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$4.50 per machine-hour

Manufacturing overhead applied to Job C:

Molding (\$6.50 per machine-hour × 2,000 machine-hours)	\$ 13,000
Customizing (\$4.50 per machine-hour × 800 machine-hours)	3,600
Total manufacturing overhead applied	<u><u>\$ 16,600</u></u>

Manufacturing overhead applied to Job M:

Molding (\$6.50 per machine-hour × 1,000 machine-hours)	\$ 6,500
Customizing (\$4.50 per machine-hour × 1,200 machine-hours)	5,400
Total manufacturing overhead applied	<u><u>\$11,900</u></u>

The selling price for Job C would be calculated as follows:

Direct materials	\$ 15,600
Direct labor cost	25,100
Manufacturing overhead applied	16,600
Total manufacturing cost	<u>\$ 57,300</u>
Markup (20%)	11,460
Selling price	<u><u>\$ 68,760</u></u>

The selling price for Job M would be calculated as follows:

Direct materials	\$ 8,600
Direct labor cost	8,300
Manufacturing overhead applied	11,900
Total manufacturing cost	<u>\$28,800</u>
Markup (20%)	5,760
Selling price	<u><u>\$34,560</u></u>

367) Forming Department: Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$102,400 + (\$1.90 per machine-hour × 16,000 machine-hours) = \$102,400 + \$30,400 = \$132,800
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$132,800 ÷ 16,000 machine-hours = \$8.30 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.30 per machine-hour × 50 machine-hours = \$415
 Assembly Department: Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$66,000 + (\$3.80 per direct labor-hour × 6,000 direct labor-hours) = \$66,000 + \$22,800 = \$88,800
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$88,800 ÷ 6,000 direct labor-hours = \$14.80 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.80 per direct labor-hour × 40 direct labor-hours = \$592

Overhead applied to Job A950

Forming Department	\$ 415
Assembly Department	592
Total	<u>\$1,007</u>

	Forming	Assembly	Total
Direct materials	\$ 665	\$ 415	\$1,080
Direct labor	\$ 520	\$1,040	1,560
Manufacturing overhead applied	\$ 415	\$ 592	<u>1,007</u>

Total cost of Job A950

\$3,647

Total cost of Job A950

\$ 3,647.00

Markup ($\$3,647.00 \times 30\%$)

1,094.10

Selling price

\$ 4,741.10

368) a. Milling Department:

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$91,800 + (\$2.00 \text{ per machine-hour} \times 17,000 \text{ machine-hours})$$

$$= \$91,800 + \$34,000 = \$125,800$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$125,800 \div 17,000$ machine-hours = \$7.40 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.40 per machine-hour × 70 machine-hours = \$518

Finishing Department:

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$64,200 + (\$3.40 \text{ per direct labor-hour} \times 6,000 \text{ direct labor-hours})$$

$$= \$64,200 + \$20,400 = \$84,600$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$84,600 \div 6,000$ direct labor-hours = \$14.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.10 per direct labor-hour × 40 direct labor-hours = \$564

Overhead applied to Job M565

Milling Department	\$ 518
Finishing Department	564
Total	<u><u>\$1,082</u></u>

b.

	Milling	Finishing	Total
Direct materials	\$ 750	\$ 360	\$ 1,110
Direct labor	\$ 340	\$1,360	1,700
Manufacturing overhead applied	\$ 518	\$ 564	1,082
Total cost of Job M565			<u>\$ 3,892</u>

c.

Total cost of Job M565	\$ 3,892.00
Markup (\$3,892.00 × 20%)	778.40
Selling price	<u>\$ 4,670.40</u>

369) Forming Department: Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$91,200 + (\$2.10 per machine-hour × 16,000 machine-hours) = \$91,200 + \$33,600 = \$124,800
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$124,800 ÷ 16,000 machine-hours = \$7.80 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.80 per machine-hour × 50 machine-hours = \$390

Customizing Department: Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$99,000 + (\$3.10 per direct labor-hour × 9,000 direct labor-hours) = \$99,000 + \$27,900 = \$126,900
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$126,900 ÷ 9,000 direct labor-hours = \$14.10 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.10 per direct labor-hour × 50 direct labor-hours = \$705

Overhead applied to Job M109

Forming Department	\$ 390
Customizing Department	705
Total	<u>\$1,095</u>

	Forming	Customizing	Total
Direct materials	\$ 915	\$ 355	\$ 1,270
Direct labor	\$ 620	\$1,550	2,170

Manufacturing overhead applied	\$ 390	\$ 705	1,095
Total cost of Job M109			<u>\$ 4,535</u>

370) a. Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$119,000 + (\$2.10 per machine-hour × 17,000 machine-hours) = \$119,000 + \$35,700 = \$154,700

b. Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$51,000 + (\$3.10 per direct labor-hour × 6,000 direct labor-hours) = \$51,000 + \$18,600 = \$69,600

c. Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$154,700 ÷ 17,000 machine-hours = \$9.10 per machine-hour

d. Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$69,600 ÷ 6,000 direct labor-hours = \$11.60 per direct labor-hour

e. Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.10 per machine-hour × 50 machine-hours = \$455
 Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.60 per direct labor-hour × 50 direct labor-hours = \$580

Overhead applied to Job A182

Casting Department	\$ 455
Assembly Department	580
Total	<u>\$1,035</u>

f.

Casting	Assembly	Total
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Direct materials	\$ 895	\$ 365	\$ 1,260
Direct labor	\$ 240	\$1,200	1,440
Manufacturing overhead applied	\$ 455	\$ 580	1,035
Total cost of Job A182			<u>\$ 3,735</u>

g.

Total cost of Job A182	\$ 3,735.00
Markup (\$3,735.00 × 20%)	747.00
Selling price	<u>\$ 4,482.00</u>

371) a. The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ {[a(2)]:#,###}
Estimated variable manufacturing overhead (\$ {[a(3)]:#,###.00} per machine-hour × {[a(1)]:#,###} machine-hours)	{[a(40)]:#,###}
Estimated total manufacturing overhead cost	<u>\$</u> <u>{[a(20)]:#,###}</u>

Customizing

Estimated fixed manufacturing overhead	\$ {[a(5)]:#,###}
Estimated variable manufacturing overhead (\$ {[a(6)]:#,###.00} per machine-hour × {[a(4)]:#,###} machine-hours)	{[a(41)]:#,###}
Estimated total manufacturing overhead cost	<u>\$</u> <u>{[a(21)]:#,###}</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments ($\$ \{ [a(20)]:#,### \} + \$ \{ [a(21)]:#,### \}$) = $\$ \{ [a(24)]:#,### \}$) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	$\$ \{ [a(24)]:#,### \}$
Estimated total machine hours	{[a(7)]:#,###} machine-hour
Predetermined overhead rate	$\$ \{ [a(25)]:#,###.00 \}$ machine-hour

b. The overhead applied to Job L is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(14)]:#,###}} machine-hours + {{[a(16)]:#,###}} machine-hours) = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(26)]:#,###}} machine-hours) = \${{[a(27)]:#,###}}

Direct materials	\$ {{[a(10)]:#,###}}
Direct labor cost	{{[a(12)]:#,###}}
Manufacturing overhead applied	{{[a(27)]:#,###}}
Total manufacturing cost	<u><u>\${{[a(28)]:#,###}}</u></u>

d. The selling price for Job L:

Total manufacturing cost	\$ {{[a(28)]:#,###}}
Markup ({{[a(17)]:#,###}}%)	{{[a(29)]:#,###}}
Selling price	<u><u>\${{[a(30)]:#,###}}</u></u>

e. Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ {{[a(2)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(3)]:#,###.00}} per machine-hour × {{[a(1)]:#,###}} machine-hours)	{{[a(18)]:#,###}}
Estimated total manufacturing overhead cost (a)	<u>\${{[a(20)]:#,###}}</u>
Estimated total machine-hours (b)	{{[a(1)]:#,###}} machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ {{[a(31)]:#,###.00}} machine-hour

f. Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ {{[a(5)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(6)]:#,###.00}} per machine-hour × {{[a(4)]:#,###}} machine-hours)	{{[a(19)]:#,###}}
Estimated total manufacturing overhead cost (a)	<u>\${{[a(21)]:#,###}}</u>
Estimated total machine-hours (b)	{{[a(4)]:#,###}} machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ {{[a(32)]:#,###.00}} machine-hour

g. Manufacturing overhead applied to Job L:

Forming (\${{[a(31)]:#,###.00}} per machine-hour × {{[a(14)]:#,###}} machine-hours)	\$ {{[a(33)]:#,###}}
Customizing (\${{[a(32)]:#,###.00}} per machine-hour × {{[a(16)]:#,###}} machine-hours)	{{[a(34)]:#,###}}
	<u></u>

Total manufacturing overhead applied \$
{{ [a(36)] : #, ### }

h. The selling price for Job L would be calculated as follows:

Direct materials	\$ {{ [a(10)] : #, ### }
Direct labor cost	{{ [a(12)] : #, ### }
Manufacturing overhead applied	{{ [a(36)] : #, ### }
Total manufacturing cost	<u>\$ {{ [a(37)] : #, ### }</u>
Markup ({{ [a(17)] : #, ### } }%)	{{ [a(38)] : #, ### }
Selling price	<u><u>\$ {{ [a(39)] : #, ### }</u></u>

372) a. The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ 50,400
Estimated variable manufacturing overhead (\$1.70 per machine-hour × 9,000 machine-hours)	15,300
Estimated total manufacturing overhead cost	<u><u>\$ 65,700</u></u>

Customizing

Estimated fixed manufacturing overhead	\$ 2,600
Estimated variable manufacturing overhead (\$2.10 per machine-hour × 1,000 machine-hours)	2,100
Estimated total manufacturing overhead cost	<u><u>\$ 4,700</u></u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$65,700 + \$4,700 = \$70,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 70,400
Estimated total machine hours	10,000 machine-hours
Predetermined overhead rate	\$7.04 per machine-hour

b. The overhead applied to Job L is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$7.04 per machine-hour × (2,900 machine-hours + 600 machine-hours) = \$7.04 per machine-hour × (3,500 machine-hours) = \$24,640

c. Job L's manufacturing cost:

Direct materials	\$6,900
Direct labor cost	8,500
Manufacturing overhead applied	<u>24,640</u>

Total manufacturing cost	\$40,040
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d. The selling price for Job L:

Total manufacturing cost	\$ 40,040
Markup (80%)	32,032
Selling price	<u>\$ 72,072</u>

e. Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 50,400
Estimated variable manufacturing overhead (\$1.70 per machine-hour × 9,000 machine-hours)	15,300
Estimated total manufacturing overhead cost (a)	<u>\$ 65,700</u>
Estimated total machine-hours (b)	9,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$7.30 per machine-hour

f. Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$2,600
Estimated variable manufacturing overhead (\$2.10 per machine-hour × 1,000 machine-hours)	2,100
Estimated total manufacturing overhead cost (a)	<u>\$4,700</u>
Estimated total machine-hours (b)	1,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.70 per machine-hour

g. Manufacturing overhead applied to Job L:

Forming (\$7.30 per machine-hour × 2,900 machine-hours)	\$ 21,170
Customizing (\$4.70 per machine-hour × 600 machine-hours)	2,820
Total manufacturing overhead applied	<u>\$ 23,990</u>

h. The selling price for Job L would be calculated as follows:

Direct materials	\$ 6,900
Direct labor cost	8,500
Manufacturing overhead applied	23,990
Total manufacturing cost	<u>\$ 39,390</u>
Markup (80%)	31,512
Selling price	<u>\$ 70,902</u>

373) a. Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,200
Estimated variable manufacturing overhead (\$1.90 per MH × 1,000 MHs)	1,900
Estimated total manufacturing overhead cost (a)	<u>\$ 6,100</u>
Estimated total machine-hours (b)	1,000 MHs

Departmental predetermined overhead rate (a) ÷ (b) \$6.10 per MH

b. Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead \$ 8,800

Estimated variable manufacturing overhead (\$2.90 per MH × 4,000 MHs) 11,600

Estimated total manufacturing overhead cost (a) \$ 20,400

Estimated total machine-hours (b) 4,000 MHs

Departmental predetermined overhead rate (a) ÷ (b) \$5.10 per MH

c. Manufacturing overhead applied to Job E:

Machining (\$6.10 per MH × 700 MHs) \$ 4,270

Finishing (\$5.10 per MH × 1,600 MHs) 8,160

Total manufacturing overhead applied \$ 12,430

d. Manufacturing overhead applied to Job G:

Machining (\$6.10 per MH × 300 MHs) \$ 1,830

Finishing (\$5.10 per MH × 2,400 MHs) 12,240

Total manufacturing overhead applied \$ 14,070

e. The selling price for Job E would be calculated as follows:

Direct materials \$ 11,800

Direct labor cost 19,200

Manufacturing overhead applied 12,430

Total manufacturing cost \$ 43,430

Markup (80%) 34,744

Selling price \$ 78,174

f. The selling price for Job G would be calculated as follows:

Direct materials \$ 8,000

Direct labor cost 6,700

Manufacturing overhead applied 14,070

Total manufacturing cost \$28,770

Markup (80%) 23,016

Selling price \$51,786

g.

Total manufacturing cost Job E \$ 43,430

Total manufacturing cost Job G 28,770

Cost of goods sold \$ 72,200

374) a. Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$110,000 + (\$1.60 per machine-hour × 20,000 machine-hours) = \$110,000 + \$32,000 = \$142,000
 b. Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$65,400 + (\$4.50 per direct labor-hour × 6,000 direct labor-hours) = \$65,400 + \$27,000 = \$92,400
 c. Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$142,000 ÷ 20,000 machine-hours = \$7.10 per machine-hour
 d. Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$92,400 ÷ 6,000 direct labor-hours = \$15.40 per direct labor-hour
 e. Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.10 per machine-hour × 60 machine-hours = \$426
 f. Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$15.40 per direct labor-hour × 40 direct labor-hours = \$616

	Casting	Assembly	Total
Direct materials	\$ 950	\$ 305	\$ 1,255
Direct labor	\$ 460	\$ 920	1,380
Manufacturing overhead applied	\$ 426	\$ 616	1,042
Total cost of Job K246			<u>\$ 3,677</u>

h.

Total cost of Job K246	\$ 3,677.00
Markup (\$3,677.00 × 40%)	1,470.80
Selling price	<u>\$ 5,147.80</u>

375) a. The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ 36,800
Estimated variable manufacturing overhead (\$1.60 per MH × 8,000 MHs)	12,800
Estimated total manufacturing overhead cost	<u>\$ 49,600</u>

Customizing

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$2.90 per MH × 2,000 MHs)	5,800
Estimated total manufacturing overhead cost	<u>\$10,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$49,600 + \$10,600 = \$60,200) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$60,200
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.02 per MH

The overhead applied to Job D is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.02 per MH × (5,400 MHs + 800 MHs) = \$6.02 per MH × (6,200 MHs) = \$37,324

Direct materials	\$ 15,600
Direct labor cost	19,100
Manufacturing overhead applied	37,324
Total manufacturing cost	\$ 72,024
Markup (50%)	36,012
Selling price	<u>\$108,036</u>

b. The overhead applied to Job K is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.02 per MH × (2,600 MHs + 1,200 MHs) = \$6.02 per MH × (3,800 MHs) = \$22,876

Direct materials	\$ 6,900
Direct labor cost	8,700
Manufacturing overhead applied	22,876
Total manufacturing cost	<u>\$38,476</u>

The selling price for Job K:

Total manufacturing cost	\$ 38,476
Markup (50%)	19,238
Selling price	<u>\$ 57,714</u>

c. Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$36,800
Estimated variable manufacturing overhead (\$1.60 per MH × 8,000 MHs)	12,800
Estimated total manufacturing overhead cost (a)	<u>\$49,600</u>
Estimated total machine-hours (b)	8,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.20 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$4,800
Estimated variable manufacturing overhead (\$2.90 per per MH × 2,000 per MHs)	5,800
Estimated total manufacturing overhead cost (a)	<u>\$10,600</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.30 per MH

Manufacturing overhead applied to Job D:

Forming (\$6.20 per MH × 5,400 MHs)	\$ 33,480
Customizing (\$5.30 per MH × 800 MHs)	4,240
Total manufacturing overhead applied	<u>\$ 37,720</u>

The selling price for Job D would be calculated as follows:

Direct materials	\$15,600
Direct labor cost	19,100
Manufacturing overhead applied	37,720
Total manufacturing cost	\$72,420
Markup (50%)	36,210
Selling price	<u>\$108,630</u>

d. Manufacturing overhead applied to Job K:

Forming (\$6.20 per MH × 2,600 MHs)	\$ 16,120
Customizing (\$5.30 per MH × 1,200 MHs)	6,360
Total manufacturing overhead applied	<u>\$ 22,480</u>

The selling price for Job K would be calculated as follows:

Direct materials	\$ 6,900
Direct labor cost	8,700

Manufacturing overhead applied	22,480
Total manufacturing cost	<u>\$38,080</u>
Markup (50%)	19,040
Selling price	<u><u>\$57,120</u></u>

376) a. The first step is to calculate the estimated total overhead costs in the two departments. Molding

Estimated fixed manufacturing overhead	\$ 29,000
Estimated variable manufacturing overhead (\$1.20 per machine-hour × 5,000 machine-hours)	6,000
Estimated total manufacturing overhead cost	<u>\$ 35,000</u>

Assembly

Estimated fixed manufacturing overhead	\$ 13,500
Estimated variable manufacturing overhead (\$2.30 per machine-hour × 5,000 machine-hours)	11,500
Estimated total manufacturing overhead cost	<u>\$ 25,000</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$35,000 + \$25,000 = \$60,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$60,000
Estimated total machine hours	10,000 machine-hours
Predetermined overhead rate	\$ 6.00 per machine-hour

b. The overhead applied to Job E is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.00 per machine-hour × (3,400 machine-hours + 2,000 machine-hours) = \$6.00 per machine-hour × (5,400 machine-hours) = \$32,400

c. Job E's manufacturing cost:

Direct materials	\$ 14,300
Direct labor cost	22,800
Manufacturing overhead applied	32,400
Total manufacturing cost	<u>\$ 69,500</u>

d. The selling price for Job E:

Total manufacturing cost	\$ 69,500
Markup (60%)	41,700
Selling price	<u><u>\$111,200</u></u>

e. Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$29,000
Estimated variable manufacturing overhead (\$1.20 per machine-hour × 5,000 machine-hours)	6,000
Estimated total manufacturing overhead cost (a)	\$35,000
Estimated total machine-hours (b)	5,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.00 per machine-hour

f. Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$13,500
Estimated variable manufacturing overhead (\$2.30 per machine-hour × 5,000 machine-hours)	11,500
Estimated total manufacturing overhead cost (a)	\$25,000
Estimated total machine-hours (b)	5,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.00 per machine-hour

g. Manufacturing overhead applied to Job E:

Molding (\$7.00 per machine-hour × 3,400 machine-hours)	\$ 23,800
Assembly (\$5.00 per machine-hour × 2,000 machine-hours)	10,000
Total manufacturing overhead applied	\$ 33,800

h. The selling price for Job E would be calculated as follows:

Direct materials	\$ 14,300
Direct labor cost	22,800
Manufacturing overhead applied	33,800
Total manufacturing cost	\$ 70,900
Markup (60%)	42,540
Selling price	\$113,440

377) a. The first step is to calculate the estimated total overhead costs in the two departments. Molding

Estimated fixed manufacturing overhead	\$ {{[a(2)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(3)]:#,###.00}} per machine-hour × {{[a(1)]:#,###}} machine-hours)	{{[a(18)]:#,###}}
Estimated total manufacturing overhead cost	\$ {{[a(20)]:#,###}}

Assembly

Estimated fixed manufacturing overhead	\$ {{[a(5)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(6)]:#,###.00}} per machine-hour × {{[a(4)]:#,###}} machine-hours)	{{[a(19)]:#,###}}

Estimated total manufacturing overhead cost \$

 $\frac{\{\{[a(21)]:\#,###\}}}{\{\{[a(21)]:\#,###\}}$

The second step is to combine the estimated manufacturing overhead costs in the two departments ($\{\{[a(20)]:\#,###\} + \{\{[a(21)]:\#,###\}\}$) = $\{\{[a(24)]:\#,###\}$) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ $\{\{[a(24)]:\#,###\}$
Estimated total machine hours	$\{\{[a(7)]:\#,###\}$ machine-hour
Predetermined overhead rate	\$ $\{\{[a(25)]:\#,###.00\}$ per machine-hour

b.The overhead applied to Job E is calculated as follows:Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job= $\{\{[a(25)]:\#,###.00\}$ per machine-hour × ($\{\{[a(13)]:\#,###\}$ machine-hours + $\{\{[a(15)]:\#,###\}$ machine-hours)= $\{\{[a(25)]:\#,###.00\}$ per machine-hour × ($\{\{[a(26)]:\#,###\}$ machine-hours)= $\{\{[a(27)]:\#,###\}$

Direct materials	\$ $\{\{[a(9)]:\#,###\}$
Direct labor cost	$\{\{[a(11)]:\#,###\}$
Manufacturing overhead applied	$\{\{[a(27)]:\#,###\}$
Total manufacturing cost	<hr/> <hr/> \$ $\{\{[a(28)]:\#,###\}$

d.The selling price for Job E:

Total manufacturing cost	\$ $\{\{[a(28)]:\#,###\}$
Markup ($\{\{[a(17)]:\#,###\}\}$ %)	$\{\{[a(29)]:\#,###\}$
Selling price	<hr/> <hr/> \$$\{\{[a(30)]:\#,###\}$

e.Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ $\{\{[a(2)]:\#,###\}$
Estimated variable manufacturing overhead ($\{\{[a(3)]:\#,###.00\}$ per machine-hour × $\{\{[a(1)]:\#,###\}$ machine-hours)	$\{\{[a(18)]:\#,###\}$
Estimated total manufacturing overhead cost (a)	<hr/> \$$\{\{[a(20)]:\#,###\}$
Estimated total machine-hours (b)	$\{\{[a(1)]:\#,###\}$ machine-hour
Departmental predetermined overhead rate (a) ÷ (b)	\$ $\{\{[a(31)]:\#,###.00\}$ per machine-hour

f.Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ $\{\{[a(5)]:\#,###\}$
Estimated variable manufacturing overhead ($\{\{[a(6)]:\#,###.00\}$ per machine-hour ×	$\{\{[a(19)]:\#,###\}$
	<hr/>

{{[a(4)]:#,###}} machine-hours)

Estimated total manufacturing overhead cost (a)

\${{[a(21)]:#,###}}

Estimated total machine-hours (b)

{{[a(4)]:#,###}} machine-hours

Departmental predetermined overhead rate (a) ÷
(b)

\$ {{[a(32)]:#,###.00}} per machine-hour

g. Manufacturing overhead applied to Job E:

Molding (\${{[a(31)]:#,###.00}} per machine-hour ×
{{[a(13)]:#,###}} machine-hours)

\$

{{[a(33)]:#,###}}

Assembly (\${{[a(32)]:#,###.00}} per machine-hour ×
{{[a(15)]:#,###}} machine-hours)

{{[a(34)]:#,###}}

Total manufacturing overhead applied

\$

{{[a(36)]:#,###}}

h. The selling price for Job E would be calculated as follows:

Direct materials

\$ {{[a(9)]:#,###}}

Direct labor cost

{{[a(11)]:#,###}}

Manufacturing overhead applied

{{[a(36)]:#,###}}

Total manufacturing cost

\$ {{[a(37)]:#,###}}

Markup ({{[a(17)]:#,###}}%)

{{[a(38)]:#,###}}

Selling price

\$ {{[a(39)]:#,###}}

378) Machining Department: Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$98,800 + (\$2.10 per machine-hour × 19,000 machine-hours) = \$98,800 + \$39,900 = \$138,700
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$138,700 ÷ 19,000 machine-hours = \$7.30 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.30 per machine-hour × 90 machine-hours = \$657
 Customizing Department: Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$84,600 + (\$3.60 per direct labor-hour × 9,000 direct labor-hours) = \$84,600 + \$32,400 = \$117,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$117,000 ÷ 9,000 direct labor-hours = \$13.00 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.00 per direct labor-hour × 50 direct labor-hours = \$650
 Overhead applied to Job K369

Machining Department	\$ 657
Customizing Department	650
Total	\$1,307

379) Machining Department: Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = $\$ \{ \{ [a(3)]:\#,### \} \} + (\$ \{ \{ [a(4)]:\#,###.00 \} \} \text{ per machine-hour} \times \{ \{ [a(1)]:\#,### \} \} \text{ machine-hours}) = \$ \{ \{ [a(3)]:\#,### \} \} + \$ \{ \{ [a(13)]:\#,### \} \} = \$ \{ \{ [a(14)]:\#,### \} \} \text{ Predetermined overhead rate} = \text{Estimated total manufacturing overhead cost} \div \text{Estimated total amount of the} = \$ \{ \{ [a(14)]:\#,### \} \} \div \{ \{ [a(1)]:\#,### \} \} \text{ machine-hours} = \$ \{ \{ [a(15)]:\#,###.00 \} \} \text{ per machine-hour}$ Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$ \{ \{ [a(15)]:\#,###.00 \} \} \text{ per machine-hour} \times \{ \{ [a(9)]:\#,### \} \} \text{ machine-hours} = \$ \{ \{ [a(17)]:\#,### \} \} \text{ Customizing Department: Customizing Department overhead cost} = \text{Fixed manufacturing overhead cost} + (\text{Variable overhead cost per direct labor-hour} \times \text{Total direct labor-hours in the department}) = \$ \{ \{ [a(7)]:\#,### \} \} + (\$ \{ \{ [a(8)]:\#,###.00 \} \} \text{ per direct labor-hour} \times \{ \{ [a(6)]:\#,### \} \} \text{ direct labor-hours}) = \$ \{ \{ [a(7)]:\#,### \} \} + \$ \{ \{ [a(18)]:\#,### \} \} = \$ \{ \{ [a(19)]:\#,### \} \} \text{ Predetermined overhead rate} = \text{Estimated total manufacturing overhead cost} \div \text{Estimated total amount of the} = \$ \{ \{ [a(19)]:\#,### \} \} \div \{ \{ [a(6)]:\#,### \} \} \text{ direct labor-hours} = \$ \{ \{ [a(20)]:\#,###.00 \} \} \text{ per direct labor-hour}$ Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$ \{ \{ [a(20)]:\#,###.00 \} \} \text{ per direct labor-hour} \times \{ \{ [a(12)]:\#,### \} \} \text{ direct labor-hours} = \$ \{ \{ [a(21)]:\#,### \} \} \text{ Overhead applied to Job K369}$

Machining Department	\$ { { [a(17)]:#,### }
Customizing Department	{ { [a(21)]:#,### }
Total	<u>\$ { { [a(22)]:#,### }</u>

380) a. The first step is to calculate the estimated total overhead costs in the two departments. Machining

Estimated fixed manufacturing overhead	\$ 20,000
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Estimated variable manufacturing overhead (\$1.40 per machine-hour × 4,000 machine-hours)	5,600
Estimated total manufacturing overhead cost	<u>\$ 25,600</u>

Finishing

Estimated fixed manufacturing overhead	\$ 2,100
Estimated variable manufacturing overhead (\$2.80 per machine-hour × 1,000 machine-hours)	2,800
Estimated total manufacturing overhead cost	<u>\$ 4,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$25,600 + \$4,900 = \$30,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$30,500
Estimated total machine hours	5,000 machine-hours
Predetermined overhead rate	\$ 6.10 per machine-hour

b. The overhead applied to Job B is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.10 per machine-hour × (2,700 machine-hours + 400 machine-hours) = \$6.10 per machine-hour × (3,100

machine-hours) = \$18,910
 c. The overhead applied to Job K is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \$6.10 per machine-hour × (1,300 machine-hours + 600 machine-hours) = \$6.10 per machine-hour × (1,900 machine-hours) = \$11,590

d. Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$20,000
Estimated variable manufacturing overhead (\$1.40 per machine-hour × 4,000 machine-hours)	5,600
Estimated total manufacturing overhead cost (a)	<u>\$25,600</u>
Estimated total machine-hours (b)	4,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.40 per machine-hour

e. Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$2,100
Estimated variable manufacturing overhead (\$2.80 per machine-hour × 1,000 machine-hours)	2,800
Estimated total manufacturing overhead cost (a)	<u>\$4,900</u>

Estimated total machine-hours (b)	1,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.90 per machine-hour

f. Manufacturing overhead applied to Job B:

Machining (\$6.40 per machine-hour × 2,700 machine-hours)	\$ 17,280
Finishing (\$4.90 per machine-hour × 400 machine-hours)	1,960
Total manufacturing overhead applied	\$ 19,240

g. Manufacturing overhead applied to Job K:

Machining (\$6.40 per machine-hour × 1,300 machine-hours)	\$ 8,320
Finishing (\$4.90 per machine-hour × 600 machine-hours)	2,940
Total manufacturing overhead applied	\$11,260

381) a. The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ {{[a(2)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(3)]:#,###.00}} per machine-hour × {{[a(1)]:#,###}} machine-hours)	{{[a(18)]:#,###}}
Estimated total manufacturing overhead cost	\$ {{[a(20)]:#,###}}

Finishing

Estimated fixed manufacturing overhead	\$ {{[a(5)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(6)]:#,###.00}} per machine-hour × {{[a(4)]:#,###}} machine-hours)	{{[a(19)]:#,###}}
Estimated total manufacturing overhead cost	\$ {{[a(21)]:#,###}}

The second step is to combine the estimated manufacturing overhead costs in the two departments (\${{[a(20)]:#,###}} + \${{[a(21)]:#,###}}) = \${{[a(24)]:#,###}}) to calculate the plantwide predetermined overhead rate as follows:

Estimated total manufacturing overhead cost	\${{[a(24)]:#,###}}
Estimated total machine hours	{{[a(7)]:#,###}} machine-hours
Predetermined overhead rate	\$ {{[a(25)]:#,###.00}} per machine-hour

b. The overhead applied to Job B is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(13)]:#,###}} machine-hours + {{[a(15)]:#,###}} machine-hours) = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(26)]:#,###}} machine-hours) = \${{[a(27)]:#,###}}

c. The overhead applied to Job K is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(14)]:#,###}} machine-hours + {{[a(16)]:#,###}} machine-hours) = \${{[a(25)]:#,###.00}} per machine-hour × ({{[a(28)]:#,###}} machine-hours) = \${{[a(29)]:#,###}}

d. Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\${{[a(2)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(3)]:#,###.00}} per machine-hour × {{[a(1)]:#,###}} machine-hours)	{{[a(18)]:#,###}}
Estimated total manufacturing overhead cost (a)	<hr/> \${{[a(20)]:#,###}}
Estimated total machine-hours (b)	{{[a(1)]:#,###}} machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ {{[a(30)]:#,###.00}} per machine-hour

e. Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\${{[a(5)]:#,###}}
Estimated variable manufacturing overhead (\${{[a(6)]:#,###.00}} per machine-hour × {{[a(4)]:#,###}} machine-hours)	{{[a(19)]:#,###}}
Estimated total manufacturing overhead cost (a)	<hr/> \${{[a(21)]:#,###}}
Estimated total machine-hours (b)	{{[a(4)]:#,###}} machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ {{[a(31)]:#,###.00}} per machine-hour

f. Manufacturing overhead applied to Job B:

Machining (\${{[a(30)]:#,###.00}} per machine-hour × {{[a(13)]:#,###}} machine-hours)	\$ {{[a(32)]:#,###}}
Finishing (\${{[a(31)]:#,###.00}} per machine-hour × {{[a(15)]:#,###}} machine-hours)	{{[a(33)]:#,###}}
Total manufacturing overhead applied	<hr/> <hr/> \$

{{{[a(35)]:#,###}}

g. Manufacturing overhead applied to Job K:

Machining (\${{{[a(30)]:#,###.00}} per machine-hour × \$ {{{[a(36)]:#,###}}
{{{[a(14)]:#,###}} machine-hours)

Finishing (\${{{[a(31)]:#,###.00}} per machine-hour × {{{[a(37)]:#,###}}
{{{[a(16)]:#,###}} machine-hours)

Total manufacturing overhead applied \${{{[a(38)]:#,###}}

382) a. Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$76,300 + (\$3.10 per direct labor-hour × 7,000 direct labor-hours) = \$76,300 + \$21,700 = \$98,000

b. Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$100,800 + (\$1.70 per machine-hour × 16,000 machine-hours) = \$100,800 + \$27,200 = \$128,000

Forming Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$128,000 ÷ 16,000 machine-hours = \$8.00 per machine-hour.

Forming Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.00 per machine-hour × 50 machine-hours = \$400

Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$98,000 ÷ 7,000 direct labor-hours = \$14.00 per direct labor-hour

Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.00 per direct labor-hour × 40 direct labor-hours = \$560

Overhead applied to Job X560

Forming Department	\$ 400
Assembly Department	560
Total	<u>\$ 960</u>

383) a. The first step is to calculate the estimated total overhead costs in the two departments. **Molding**

Estimated fixed manufacturing overhead	\$ 5,100
Estimated variable manufacturing overhead (\$1.50 per machine-hour × 1,000 machine-hours)	1,500
Estimated total manufacturing overhead cost	\$ 6,600

Customizing

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead (\$2.50 per machine-hour × 9,000 machine-hours)	22,500
Estimated total manufacturing overhead cost	\$ 45,900

The second step is to combine the estimated manufacturing overhead costs in the two departments ($\$6,600 + \$45,900 = \$52,500$) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$52,500
Estimated total machine hours	10,000 machine-hours
Predetermined overhead rate	\$ 5.25 per machine-hour

The overhead applied to Job D is calculated as follows: **Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job** = $\$5.25 \text{ per machine-hour} \times (700 \text{ machine-hours} + 3,600 \text{ machine-hours}) = \$5.25 \text{ per machine-hour} \times (4,300 \text{ machine-hours}) = \$22,575$

b. The overhead applied to Job G is calculated as follows: Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job = $\$5.25 \text{ per machine-hour} \times (300 \text{ machine-hours} + 5,400 \text{ machine-hours}) = \$5.25 \text{ per machine-hour} \times (5,700 \text{ machine-hours}) = \$29,925$

c. Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$5,100
Estimated variable manufacturing overhead (\$1.50 per machine-hour × 1,000 machine-hours)	1,500
Estimated total manufacturing overhead cost (a)	\$6,600
Estimated total machine-hours (b)	1,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.60 per machine-hour

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$23,400
Estimated variable manufacturing overhead (\$2.50 per machine-hour × 9,000 machine-hours)	22,500
Estimated total manufacturing overhead cost (a)	\$45,900
Estimated total machine-hours (b)	9,000 machine-hours
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per machine-hour

Manufacturing overhead applied to Job D:

Molding (\$6.60 per machine-hour × 700 machine-hours)	\$ 4,620
Customizing (\$5.10 per machine-hour × 3,600 machine-hours)	18,360
Total manufacturing overhead applied	\$22,980

d. Manufacturing overhead applied to Job G:

Molding (\$6.60 per machine-hour × 300 machine-hours)	\$ 1,980
Customizing (\$5.10 per machine-hour × 5,400 machine-hours)	27,540
Total manufacturing overhead applied	\$29,520

384) a. Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$124,100 + (\$2.30 per machine-hour × 17,000 machine-hours) = \$124,100 + \$39,100 = \$163,200

b. Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$163,200 ÷ 17,000 machine-hours = \$9.60 per machine-hour.

Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.60 per machine-hour × 80 machine-hours = \$768

385) a. Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)= \$57,600 + (\$4.00 per direct labor-hour × 6,000 direct labor-hours)= \$57,600 + \$24,000 = \$81,600b.

Finishing Department:Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$81,600 ÷6,000 direct labor-hours = \$13.60 per direct labor-hourc. Finishing

Department:Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.60 per direct labor-hour × 60 direct labor-hours = \$816

386) a.Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)= \$119,700 + (\$2.00 per machine-hour × 19,000 machine-hours)= \$119,700 +\$38,000 = \$157,700b.

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)= \$67,200 + (\$4.20 per direct labor-hour × 8,000 direct labor-hours)= \$67,200 + \$33,600 = \$100,800Predetermined

overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$100,800 ÷8,000 direct labor-hours = \$12.60 per direct labor-hourc. Forming Department: Predetermined

overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$157,700 ÷ 19,000 machine-hours = \$8.30 per machine-hourForming Department: Overhead applied to a

particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.30 per machine-hour × 50 machine-hours = \$415Customizing Department: Overhead applied to a particular job =

Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.60 per direct labor-hour × 50 direct labor-hours = \$630

Forming Department

\$ 415

Customizing Department

630

Total	\$1,045
<hr/>	
387)	
Predetermined overhead rate (a)	\$ 14.30 per machine-hour
Actual activity level (b)	36,700 machine-hours
Manufacturing overhead applied (a) × (b)	\$524,810
<hr/>	

388)	
Predetermined overhead rate (a)	\$ 23.40 per direct labor-hour
Actual activity level (b)	27,100 direct labor-hours
Manufacturing overhead applied (a) × (b)	\$634,140
<hr/>	

389) Estimated total manufacturing overhead = \$1,533,180 + (\$8.41 per labor-hour × 66,000 labor-hours) = \$2,088,240
 Predetermined overhead rate = \$2,088,240 ÷ 66,000 labor-hours = \$31.64 per labor-hour

390) Estimated total manufacturing overhead = \$705,220 + (\$4.43 per labor-hour × 37,000 labor-hours) = \$869,130
 Predetermined overhead rate = \$869,130 ÷ 37,000 labor-hours = \$23.49 per labor-hour

391) Estimated total manufacturing overhead = \$985,920 + (\$9.99 per labor-hour × 78,000 labor-hours) = \$1,765,140
 Predetermined overhead rate = \$1,765,140 ÷ 78,000 labor-hours = \$22.63 per labor-hour

392) Estimated total manufacturing overhead = \$1,077,000 + (\$8.82 per machine-hour × 50,000 machine-hours) = \$1,518,000
 Predetermined overhead rate = \$1,518,000 ÷ 50,000 machine-hours = \$30.36 per machine-hour

393) Cost Summary

Direct materials	\$48,870
Direct labor (\$13 per direct labor-hour × 405 direct labor-hours)	5,265
Manufacturing overhead (\$11 per machine-hour × 486 machine-hours)	5,346
Total product cost	<hr/> \$59,481
Unit product cost	\$ 22.03

394) Cost Summary

Direct materials	\$59,400
Direct labor (\$15 per direct labor-hour × 1,224 direct labor-	18,360

hours)

Manufacturing overhead (\$35 per Direct labor-hour × 1,224	42,840
Direct labor-hours)	
Total product cost	\$120,600
Unit product cost	\$ 33.50

395) a. Traditional Unit Product Costs
 Predetermined overhead rate =
 Estimated total manufacturing overhead cost ÷ Estimated total amount
 of the allocation base = $\frac{\$ \{ [a(14)]:\#,### \}}{\{ [a(17)]:\#,### \}}$ direct
 labor-hours = $\$ \{ [a(30)]:\#,###.00 \}$ per direct labor-hour

	W82R	L48S
Direct materials	\$	\$
$\{ [a(37)]:\#,###.00 \}$	$\{ [a(41)]:\#,###.00 \}$	$\{ [a(41)]:\#,###.00 \}$
Direct labor	$\{ [a(38)]:\#,###.00 \}$	$\{ [a(42)]:\#,###.00 \}$
Manufacturing overhead	$\{ [a(39)]:\#,###.00 \}$	$\{ [a(43)]:\#,###.00 \}$
($\{ [a(3)]:\#,###.00 \}$)		
direct labor-hours ×		
\$ $\{ [a(30)]:\#,###.00 \}$		
per direct labor-hour;		
$\{ [a(7)]:\#,###.00 \}$		
direct labor-hours ×		
\$ $\{ [a(30)]:\#,###.00 \}$		
per direct labor-hour)		
Unit product cost	\$	\$
$\{ [a(40)]:\#,###.00 \}$	$\{ [a(44)]:\#,###.00 \}$	$\{ [a(44)]:\#,###.00 \}$

b. ABC Unit Product Costs.

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$	$\{ [a(46)]:\#,### \}$ direct labor-hours	\$ $\{ [a(47)]:\#,### \}$ per direct labor-hour
Setting up machines	\$	$\{ [a(49)]:\#,### \}$ } setups	\$ $\{ [a(50)]:\#,### \}$ } per setup
Parts	\$	$\{ [a(52)]:\#,$	\$

admini {{[a(51) ###}} part {{[a(53)]:#,
strati]:#,###} types ###}} per
on } part type

Overhead cost for W82R

	Activity Rate	Activity	ABC Cost
Supportin	\$ {{[a(54)]:#,###}}	{{[a(55)]:#,###}}	\$
g direct	per direct labor-hour	direct labor-hours	{{[a(56)]:#
labor			,###}}
Setting	\$	{{[a(58)]:#	{{[a(59)]:#
up	{{[a(57)]:#	,###}}	,###}}
machines	,###}} per	setups	
	setup		
Parts	\$	{{[a(61)]:#,###	{{[a(62)]:#
administr	{{[a(60)]:#,##	} part types	,###}}
ation	#}} per part		
	type		
Total			\$
			{{[a(63)]:#
			,###}}

Overhead cost for L48S

	Activity Rate	Activity	ABC Cost
Supportin	\$ {{[a(64)]:#,###}}	{{[a(65)]:#,###}}	\$
g direct	per direct labor-hour	direct labor-hours	{{[a(66)]:#
labor			,###}}
Setting	\$	{{[a(68)]:#	{{[a(69)]:#
up	{{[a(67)]:#	,###}}	,###}}
machines	,###}} per	setups	
	setup		
Parts	\$	{{[a(71)]:#,###	{{[a(72)]:#
administr	{{[a(70)]:#,##	} part types	,###}}
ation	#}} per part		
	type		
Total			\$
			{{[a(73)]:#
			,###}}

W82R

L48S

Direct materials	\$	\$
	{{[a(74)]:#,###.00}}	{{[a(78)]:#,###.00}}

Direct labor	{{[a(75)]:#,###.00}}	{{[a(79)]:#,###.00}}
Manufacturing overhead	{{[a(76)]:#,###.00}}	{{[a(80)]:#,###.00}}
({{[a(63)]:#,###}} ÷ {{[a(4)]:#,###}} units; \${[a(73)]:#,###} ÷ {{[a(8)]:#,###}} units)		
Unit product cost	\$	\$
	{{[a(77)]:#,###.00}}	{{[a(81)]:#,###.00}}

396) a. Traditional Manufacturing Overhead Costs Predetermined

overhead rate = Estimated total manufacturing overhead cost ÷

Estimated total amount of the allocation base = \$1,147,650 ÷ 35,000

direct labor-hours = \$32.79 per direct labor-hour

	D31X	U75X
Direct labor-hours	0.10	2.10
Predetermined overhead rate per direct labor-hours	\$ 32.79	\$ 32.79
Manufacturing overhead cost per unit	\$ 3.28	\$ 68.86

b. ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 140,000	35,000 direct labor-hours	\$ 4 per direct labor-hour
Preparing batches	\$ 241,150	1,855 batches	\$ 130 per batch
Axial milling	\$ 766,500	2,555 machine-hours	\$ 300 per machine-hour

Overhead cost for D31X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor-hour	3,500 direct labor-hours	\$ 14,000
Preparing batches	\$ 130 per batch	560 batches	72,800
Axial milling	\$ 300 per machine-hour	1,540 machine-hours	462,000

Total	\$ 548,800
Annual production (units)	<u>35,000</u>
Manufacturing overhead cost per unit	\$ 15.68

Overhead cost for U75X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor- hour	31,500 direct labor-hours	\$ 126,000
Preparing batches	\$ 130 per batch	1,295 batches	168,350
Axial milling	\$ 300 per machine-hour	1,015 machine- hours	304,500
Total			<u>\$ 598,850</u>
Annual production (units)			<u>15,000</u>
Manufacturing overhead cost per unit			\$ 39.92

397) a. Traditional Unit Product Costs Predetermined overhead rate =
 Estimated total manufacturing overhead cost ÷ Estimated total amount
 of the allocation base = \$2,656,000 ÷ 64,000 direct labor-hours = \$41.50
 per direct labor-hour

	B40W	C63J
Direct materials	\$ 34.90	\$ 63.70
Direct labor	20.80	62.40
Manufacturing overhead (0.8 direct labor-hours × \$41.50 per direct labor-hour; 2.4 direct labor-hours × \$41.50 per direct labor-hour)	33.20	99.60
Unit product cost	<u>\$ 88.90</u>	<u>\$ 225.70</u>

b. ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 1,216,000	64,000 direct labor- hours	\$ 19 per direct labor-hour
Preparing	\$ 480,000	4,800	\$ 100 per

batches		batches	batch
Milling	\$ 960,000	3,200 machine-hours	\$ 300 per machine-hour

Overhead cost for B40W

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	28,000 direct labor-hours	\$ 532,000
Preparing batches	\$ 100 per batch	2,304 batches	230,400
Milling	\$ 300 per machine-hour	1,088 machine-hours	326,400
Total			\$ 1,088,800

Overhead cost for C63J

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	36,000 direct labor-hours	\$ 684,000
Preparing batches	\$ 100 per batch	2,496 batches	249,600
Milling	\$ 300 per machine-hour	2,112 machine-hours	633,600
Total			\$ 1,567,200

	B40W	C63J
Direct materials	\$ 34.90	\$ 63.70
Direct labor	20.80	62.40
Manufacturing overhead	31.11	104.48
(\$1,088,800 ÷ 35,000 units; \$1,567,200 ÷ 15,000 units)		
Unit product cost	\$ 86.81	\$ 230.58

398) a. The expected total direct labor-hours during the period are computed as follows:

Product C: 2,000 units × 2.0 hours per unit	4,000 hours
Product D: 2,700 units × 0.8 hours per unit	2,160 hours
	6,160 hours

Total direct labor-hours

6,160 hours

Using these hours as a base, the predetermined overhead using direct labor-hours would be: Predetermined overhead rate = Estimated total overhead cost ÷ Estimated total direct labor-hours = \$167,140 ÷ 6,160 direct labor-hours = \$27.13 per direct labor-hour Using this overhead rate, the unit product costs are:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead (2.0 direct labor-hours × \$27.13 per direct labor-hour; 0.8 direct labor-hours × \$27.13 per direct labor-hour)	54.27	21.71
Total unit product cost	\$ 99.77	\$ 55.41

b. The activity rates for each activity cost pool are as follows:

	Estimated Overhead Cost	Expected Activity	Activity Rate
Machine setups	\$ 13,630	290 setups	\$ 47.00 per setup
Purchase orders	\$ 85,750	1,750 orders	\$ 49.00 per order
General factory	\$ 67,760	6,160 direct labor-hours	\$ 11.00 per direct labor-hour

The overhead cost charged to Product C is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	130 setups	\$ 6,110
Purchase orders	\$ 38.00 per order	750 orders	36,750
General factory	\$ 13.00 per direct labor-hour	4,000 direct labor-hours	44,000
Total overhead cost			\$ 86,860

The overhead cost charged to Product D is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	160 setups	\$ 7,520
Purchase orders	\$ 38.00 per order	1,000 orders	49,000
General factory	\$ 13.00 per direct labor-hour	2,160 direct labor-hours	23,760
Total overhead cost			<u>\$ 80,280</u>

Overhead cost per unit: Product C: $\$86,860 \div 2,000 \text{ units} = \43.43 per unit. Product D: $\$80,280 \div 2,700 \text{ units} = \29.73 per unit. Using activity based costing, the unit product cost of each product would be:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead	43.43	29.73
Total unit product cost	\$ 88.93	\$ 63.43

399) a. Traditional Manufacturing Overhead Costs Predetermined

overhead rate = Estimated total manufacturing overhead cost ÷

Estimated total amount of the allocation base = $\$1,464,480 \div 24,000$

direct labor-hours = $\$61.02$ per direct labor-hour

	H16Z	P25P
Direct labor-hours	0.40	1.20
Predetermined overhead rate per direct labor-hour	\$ 61.02	\$ 61.02
Manufacturing overhead cost per unit	\$ 24.41	\$ 73.22

b. ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 552,000	24,000 direct labor-hours	\$ 23 per direct labor-hour
Setting up machines	\$ 132,480	1,104 setups	\$ 120 per setup
Parts administration	\$ 780,000	1,560 part types	\$ 500 per part type

Overhead cost for H16Z

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000
Setting up machines	\$ 120 per setup	864 setups	103,680
Parts administration	\$ 500 per part type	600 part types	300,000
Total			<u>\$ 679,680</u>
Annual production (units)			<u>30,000</u>
Manufacturing overhead cost per unit			\$ 22.66

Overhead cost for P25P

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000
Setting up machines	\$ 120 per setup	240 setups	28,800
Parts administration	\$ 500 per part type	960 part types	480,000
Total			<u>\$ 784,800</u>
Annual production (units)			<u>10,000</u>
Manufacturing overhead cost per unit			\$ 78.48

400) a. Traditional Unit Product Costs
 Predetermined overhead rate =
 Estimated total manufacturing overhead cost ÷ Estimated total amount
 of the allocation base = \$1,521,960 ÷ 22,000 direct labor-hours = \$69.18
 per direct labor-hour

	W82R	L48S
Direct materials	\$ 11.50	\$ 62.90

Direct labor	\$ 2.00	\$ 13.00
Manufacturing overhead (0.20 direct labor-hours × \$69.18 per direct labor-hour; 1.3 direct labor-hours × \$69.18 per direct labor-hour)	13.84	89.93
Unit product cost	\$ 27.34	\$ 165.83

b. ABC Unit Product Costs.

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 352,000	22,000 direct labor- hours	\$ 16 per direct labor-hour
Setting up machines	\$ 201,960	1,188 setups	\$ 170 per setup
Parts administration	\$ 968,000	1,936 part types	\$ 500 per part type

Overhead cost for W82R

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	9,000 direct labor- hours	\$ 144,000
Setting up machines	\$ 170 per setup	814 setups	138,380
Parts administration	\$ 500 per part type	924 part types	462,000
Total			<u>\$ 744,380</u>

Overhead cost for L48S

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	13,000 direct labor-hours	\$ 208,000
Setting up machines	\$ 170 per setup	374 setups	63,580
Parts administration	\$ 500 per part type	1,012 part types	506,000
Total			<u>\$ 777,580</u>

	W82R	L48S
Direct materials	\$ 11.50	\$ 62.90
Direct labor	2.00	13.00
Manufacturing overhead ($\$744,400 \div 45,000$ units; $\$777,600 \div 10,000$ units)	16.54	77.76
Unit product cost	\$ 30.04	\$ 153.66

401) Predetermined overhead rate = Estimated total manufacturing overhead \div Estimated total amount of the allocation base = $\$989,000 \div 50,000$ machine-hours = \$19.78 per machine-hour

Actual manufacturing overhead cost incurred	\$989,000
Manufacturing overhead applied to jobs:	<hr/>
Predetermined overhead rate	\$ 19.78 per machine-
Actual hours	45,400 machine-hour
Manufacturing overhead applied to jobs	\$898,012
Cost of unused capacity	<hr/> \$ 90,988 <hr/>

402) Predetermined overhead rate = Estimated total manufacturing overhead at capacity \div Estimated total amount of the allocation base at capacity = $\$ \{ \{ [a(4)] : \#, \### \} \} \div \{ \{ [a(2)] : \#, \### \} \}$ machine-hours = $\$ \{ \{ [a(5)] : \#, \###.00 \} \}$ per machine-hour

Actual manufacturing overhead cost incurred	$\$ \{ \{ [a(4)] : \#, \### \} \}$
Manufacturing overhead applied to jobs:	<hr/>
Predetermined overhead rate	$\$ \{ \{ [a(5)] : \#, \###.00 \} \}$ per machine-
Actual hours	$\{ \{ [a(3)] : \#, \### \} \}$ machine-hour
Manufacturing overhead applied to jobs	$\$ \{ \{ [a(6)] : \#, \### \} \}$
Cost of unused capacity	<hr/> $\$ \{ \{ [a(7)] : \#, \### \} \}$ <hr/>

403) a.

Estimated total fixed manufacturing overhead	\$24,500
Estimated activity level	250 hours
Predetermined overhead rate	\$98.00 per hour

b. Manufacturing overhead applied = 200 hours \times \$98.00 per hour = \$19,600

c.

Sales			\$71,706
Cost of Goods Sold:			
Direct materials	\$12,500		
Direct labor	17,900		
Manufacturing overhead applied	19,600	50,000	
Gross margin			<u>21,706</u>

d. Cost of unused capacity = (250 hours – 200 hours) × \$98.00 per hour
= \$4,900

404)

Estimated total fixed manufacturing overhead			\$24,288
Estimated activity level			240 hours
Predetermined overhead rate			\$101.20 per hour

Sales \$71,473

Cost of Goods Sold:

Direct materials	\$10,400		
Direct labor	17,300		
Manufacturing overhead applied 230 hours × \$101.20 per hour	23,276	50,976	
Gross margin			<u>20,497</u>

Cost of unused capacity (240 hours – 230 hours) × \$101.20 per hour	\$ 1,012		
Selling and administrative expense	9,100	10,112	
Net operating income			<u>\$10,385</u>

405) a.

Estimated total fixed manufacturing overhead			\$22,701
Estimated activity level			230 hours
Predetermined overhead rate			\$ 98.70 per hour

b. Manufacturing overhead applied = 210 hours × \$98.70 per hour = \$20,727
 c. Cost of unused capacity = (230 hours – 210 hours) × \$98.70 per hour = \$1,974

406) a.

Estimated total fixed manufacturing overhead	\${{[a(1)]:#,###}}
Estimated activity level	{{[a(2)]:#,###}} hours
Predetermined overhead rate	\$ {{[a(5)]:#,###}} per hour

b. Manufacturing overhead applied = {{[a(4)]:#,###}} hours × \${{[a(5)]:#,###}} per hour = \${{[a(6)]:#,###}}
 c. Cost of unused capacity = ({{[a(2)]:#,###}} hours – {{[a(4)]:#,###}} hours) × \${{[a(5)]:#,###}} per hour = \${{[a(7)]:#,###}}

407) a. Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$6,400 ÷ 10,000 machine-hours = \$0.64 per machine-hour.

Manufacturing overhead applied to Job L77S

Number of hours for the job	220 machine-hours
Predetermined overhead rate	\$0.64 per machine-hour
Manufacturing overhead applied to the job	\$140.80

C.

Actual manufacturing overhead cost incurred	\$6,400
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$0.64 per machine-
Actual hours	8,700 machine-hou
Manufacturing overhead applied to jobs	\$5,568
Cost of unused capacity	\$832

408) a. Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$734,160 ÷ 46,000 machine-hours = \$15.96 per machine-hour.

Actual manufacturing overhead cost incurred	\$734,160
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$15.96 per machine-
Actual hours	43,000 machine-hou

Manufacturing overhead applied to jobs	\$686,280
Cost of unused capacity	<u>\$47,880</u>

409) Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$377,400 ÷ 37,000 machine-hours = \$10.20 per machine-hour

Actual manufacturing overhead cost incurred	\$377,400
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$10.20 per machine-
Actual hours	34,700 machine-hou
Manufacturing overhead applied to jobs	<u>\$353,940</u>
Cost of unused capacity	<u>\$23,460</u>

410) a. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$5,572,320 ÷ 76,000 machine-hours = \$73.32 per machine-hourb.

Manufacturing overhead applied to Job Q58A

Number of hours for the job	130 machine-hou
Predetermined overhead rate	\$73.32 per machine-
Manufacturing overhead applied to the job	\$9,531.60

c. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$5,572,320 ÷ 94,000 machine-hours = \$59.28 per machine-hourd.

Manufacturing overhead applied to Job Q58A

Number of hours for the job	130 machine-hou
Predetermined overhead rate	\$59.28 per machine-
Manufacturing overhead applied to the job	\$7,706.40

e.

Actual manufacturing overhead cost incurred	\$5,572,320
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$59.28 per machine-
Actual hours	82,800 machine-hou
Manufacturing overhead applied to jobs	<u>\$4,908,384</u>

Cost of unused capacity	\$663,936
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411) a. $\text{Predetermined overhead rate} = \frac{\text{Estimated total manufacturing overhead}}{\text{Estimated total amount of the allocation base}} = \frac{\$43,200}{15,000 \text{ machine-hours}} = \$2.88 \text{ per machine-hour}$

b. $\text{Predetermined overhead rate} = \frac{\text{Estimated total manufacturing overhead}}{\text{Estimated total amount of the allocation base}} = \frac{\$43,200}{18,000 \text{ machine-hours}} = \$2.40 \text{ per machine-hour}$

Actual manufacturing overhead cost incurred	\$43,200
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Manufacturing overhead applied to jobs:

Predetermined overhead rate	\$2.40 per machine-
Actual hours	15,800 machine-hou
Manufacturing overhead applied to jobs	\$37,920
Cost of unused capacity	\$5,280