

***Fundamentals of Cost Accounting, 6e (Lanen)***  
**Chapter 2 Cost Concepts and Behavior**

- 1) The cost of an item is the sacrifice of resources made to acquire it.
- 2) An expense is a cost charged against revenue in an accounting period.
- 3) If a cost is recorded as an asset (for example, prepaid rent for an office building), it becomes an expense when the asset has been consumed.
- 4) Accounting systems typically record opportunity costs as assets and treat them as intangible items on the financial statements.
- 5) Total cost of goods purchased minus beginning merchandise inventory plus ending merchandise inventory equals cost of goods sold.
- 6) Cost of goods sold includes the actual costs of the goods sold and the costs required to sell them to the customer.
- 7) Period costs are those costs assigned to units of production in the period in which they are incurred.
- 8) Only direct costs can be classified as product costs; indirect costs are classified as period costs.
- 9) The three categories of product costs are direct materials, direct labor, and manufacturing overhead.
- 10) The first step in determining whether a cost is direct or indirect is to specify the cost allocation rule.
- 11) Total work-in-process during the period is the sum of the beginning work-in-process inventory and the total manufacturing costs incurred during the period.
- 12) Cost of goods sold plus the ending finished goods inventory minus the beginning finished goods inventory equals the cost of goods manufactured.
- 13) If the cost of goods manufactured during the period exceeds the cost of goods sold, the ending balance of Finished Goods Inventory account increased.
- 14) Total variable costs change inversely with changes in the volume of activity.
- 15) Fixed costs per unit change inversely with changes in the volume of activity.
- 16) The range within which fixed costs remain constant as volume of activity varies is known as the relevant range.

- 17) The term full cost refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
- 18) Variable marketing and administrative costs are included in determining full absorption costs.
- 19) Revenue minus cost of goods sold equals contribution margin.
- 20) The primary goal of the cost accounting system is to provide managers with information to prepare their annual financial statements.
- 21) An opportunity cost is
- A) a cost that is charged against revenue in an accounting period.
  - B) the foregone benefit from the best alternative course of action.
  - C) the excess of operating revenues over operating costs.
  - D) the cost assigned to the products sold during the period.
- 22) Which of the following statements is (are) true?
- (1) An asset is a cost that will be matched with revenues in a future accounting period.
  - (2) Opportunity costs are recorded as intangible assets in the current accounting period.
- A) Only (1) is true.
  - B) Only (2) is true.
  - C) Both of these are true.
  - D) None of these are true.
- 23) Which of the following statements is (are) **false**?
- (1) In general, the term expense is used for managerial purposes, while the term cost refers to external financial reports.
  - (2) An opportunity cost is the benefit forgone by selecting one alternative over another.
- A) Only (1) is false.
  - B) Only (2) is false.
  - C) Both of these are false.
  - D) None of these are false.
- 24) Which of the following best distinguishes an opportunity cost from an outlay cost?
- A) Opportunity costs are recorded, whereas outlay costs are not.
  - B) Outlay costs are speculative in nature, whereas opportunity costs are easily traceable to products.
  - C) Opportunity costs have very little utility in practical applications, whereas outlay costs are always relevant.
  - D) Opportunity costs are sacrifices from foregone alternative uses of resources, whereas outlay costs are cash outflows.

- 25) Which of the following accounts would be a period cost rather than a product cost?
- A) Depreciation on manufacturing machinery.
  - B) Maintenance on factory machines.
  - C) Production manager's salary.
  - D) Freight out.
- 26) A company which manufactures custom-made machinery routinely incurs sizable telephone costs in the process of taking sales orders from customers. Which of the following is a proper classification of this cost?
- A) Product cost
  - B) Period cost
  - C) Conversion cost
  - D) Prime cost
- 27) For a manufacturing company, which of the following is an example of a period cost rather than a product cost?
- A) Wages of salespersons.
  - B) Salaries of machine operators.
  - C) Insurance on factory equipment.
  - D) Depreciation of factory equipment.
- 28) Tallon Company manufactures a single product. The product's prime costs consist of
- A) direct materials and direct labor.
  - B) direct materials and manufacturing overhead.
  - C) direct labor and manufacturing overhead.
  - D) direct materials, direct labor and manufacturing overhead.
- 29) The cost of fire insurance for a manufacturing plant is generally considered to be a:
- A) product cost.
  - B) period cost.
  - C) variable cost.
  - D) prime cost.
- 30) An example of a period cost is:
- A) fire insurance on a factory building.
  - B) salary of a factory supervisor.
  - C) direct materials.
  - D) rent on a headquarters building.
- 31) Transportation costs incurred by a manufacturing company to ship its product to its customers would be classified as which of the following?
- A) Product cost
  - B) Manufacturing overhead
  - C) Period cost
  - D) Administrative cost

32) Doran Technical Company has set up a toll-free telephone line for customer inquiries regarding computer hardware produced by the company. The cost of this toll-free line would be classified as which of the following?

- A) Product cost
- B) Manufacturing overhead
- C) Direct labor
- D) Period cost

33) Which of the following costs is both a prime cost and a conversion cost?

- A) direct materials
- B) direct labor
- C) manufacturing overhead
- D) administrative costs

34) Marketing costs include all of the following **except**:

- A) Advertising.
- B) Shipping costs.
- C) Sales commissions.
- D) Legal and accounting fees.

35) Property taxes on the manufacturing facility are an element of

	Conversion Cost	Period Cost
a.	No	No
b.	No	Yes
c.	Yes	No
d.	Yes	Yes

- A) Option A
- B) Option B
- C) Option C
- D) Option D

36) The cost of direct labor will be treated as an expense on the income statement when the resulting:

- A) payroll costs are paid.
- B) payroll costs are incurred.
- C) products are completed.
- D) products are sold.

37) Calculate the conversion costs from the following information:

Fixed manufacturing overhead	\$ 2,000
Variable manufacturing overhead	1,000
Direct materials	2,500
Direct labor	1,500

- A) \$3,000
- B) \$4,000
- C) \$4,500
- D) \$5,000

38) The corporate controller's salary would be considered a(n):

- A) manufacturing cost.
- B) product cost.
- C) administrative cost.
- D) selling expense.

39) The costs of direct materials are classified as:

	<b>Conversion cost</b>	<b>Manufacturing cost</b>	<b>Prime cost</b>
A)	Yes	Yes	Yes
B)	No	No	No
C)	Yes	Yes	No
D)	No	Yes	Yes

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

40) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct Materials	\$ 200per unit

What is the conversion cost per unit?

- A) \$100
- B) \$180
- C) \$280
- D) \$380

41) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct Materials	\$ 200per unit

What is the prime cost per unit?

- A) \$100
- B) \$280
- C) \$300
- D) \$480

42) Which one of the following costs is classified as a period cost? (CIA adapted)

- A) The wages of the workers on the shipping docks who load completed products onto outgoing trucks.
- B) The wages of a worker paid for idle time resulting from a machine breakdown in the molding department.
- C) The payments for employee (fringe) benefits paid on behalf of the workers in the manufacturing plant.
- D) The wages paid to workers for reworking defective products that failed the quality inspection upon completion.

43) The following cost data for the month of May were taken from the records of the Terrence Manufacturing Company: (CIA adapted)

Depreciation on factory equipment	\$ 1,000
Depreciation on sales office	500
Advertising	7,000
Wages of production workers	28,000
Raw materials used	47,000
Sales salaries and commissions	10,000
Factory rent	2,000
Factory insurance	500
Materials handling	1,500
Administrative salaries	2,000

Based upon this information, the manufacturing cost incurred during the month was:

- A) \$78,500.
- B) \$80,000.
- C) \$80,500.
- D) \$83,000.

44) Which of the following is **not** a name for indirect resources?

- A) Overhead costs
- B) Burden
- C) Direct costs
- D) Common costs

45) Which of the following should be considered part of a manufacturing company's direct labor cost?

- A) Factory supervisor's salary
- B) Forklift operator's hourly wages
- C) Employer-paid health insurance on factory assemblers' wages
- D) Cost of idle time

46) Tulsa Company, (a merchandising co.) has the following data pertaining to the year ended December 31, 2019: (CPA adapted)

Purchases	\$ 450,000
Beginning inventory	170,000
Ending inventory	210,000
Freight-in	50,000
Freight-out	75,000

What is the cost of goods sold for the year?

- A) \$385,000
- B) \$460,000
- C) \$485,000
- D) \$536,000

47) The Shoal Company's manufacturing costs for the third quarter of 2019 were as follows:  
(CPA adapted)

Direct materials and direct labor	\$ 700,000
Other variable manufacturing costs	100,000
Depreciation of factory building and manufacturing equipment	80,000
Other fixed manufacturing costs	18,000

What amount should be considered product costs for external reporting purposes?

- A) \$700,000
- B) \$800,000
- C) \$880,000
- D) \$898,000

48) The three basic elements of manufacturing cost are direct materials, direct labor, and:

- A) cost of goods manufactured.
- B) cost of goods sold.
- C) work in process.
- D) manufacturing overhead.

49) Prime cost consists of direct materials combined with:

- A) direct labor.
- B) manufacturing overhead.
- C) indirect materials.
- D) cost of goods manufactured.

50) Classifying a cost as either direct or indirect depends upon

- A) whether an expenditure is unavoidable because it cannot be changed regardless of any action taken.
- B) whether the cost is expensed in the period in which it is incurred.
- C) the behavior of the cost in response to volume changes.
- D) the cost object to which the cost is being related.

51) The process of assigning indirect costs to products, services, people, business units, etc., is

- A) cost object.
- B) cost pool.
- C) cost allocation.
- D) opportunity cost.

52) A(n) \_\_\_\_\_ is any end to which a cost is assigned.

- A) cost object
- B) cost pool
- C) cost allocation
- D) opportunity cost



- 53) A cost allocation rule is the method or process used to assign the costs in the \_\_\_\_\_ to the \_\_\_\_\_.
- A) cost allocation; cost pool
  - B) cost pool; opportunity cost
  - C) cost object; cost pool
  - D) cost pool; cost object
- 54) The beginning Work-in-Process Inventory plus the total of the manufacturing costs equals
- A) total finished goods during the period.
  - B) cost of goods sold for the period.
  - C) total work-in-process during the period.
  - D) cost of goods manufactured for the period.
- 55) A product cost is deducted from revenue when
- A) the finished goods are sold.
  - B) the expenditure is incurred.
  - C) the production process takes place.
  - D) the production process is completed.
- 56) The amount of direct materials issued to production is found by
- A) subtracting ending work in process from total work in process during the period.
  - B) adding beginning direct materials inventory and the delivered cost of direct materials.
  - C) subtracting ending direct materials from direct materials available for production.
  - D) adding delivered cost of materials, labor, and manufacturing overhead.
- 57) The beginning Finished Goods Inventory plus the cost of goods manufactured equals
- A) ending finished goods inventory.
  - B) cost of goods sold for the period.
  - C) total work-in-process during the period.
  - D) cost of goods available for sale for the period.
- 58) Direct labor would be part of the cost of the ending inventory for which of these accounts?
- A) Work-in-Process.
  - B) Finished Goods.
  - C) Direct Materials and Work-in-Process.
  - D) Work-in-Process and Finished Goods.
- 59) The Work-in-Process Inventory of the Model Fabricating Corp. was \$3,000 higher on December 31, 2019 than it was on January 1, 2019. This implies that in 2019:
- A) cost of goods manufactured was higher than cost of goods sold.
  - B) cost of goods manufactured was less than total manufacturing costs.
  - C) manufacturing costs were higher than cost of goods sold.
  - D) manufacturing costs were less than cost of goods manufactured.

60) Which of the following is **not** a product cost under full-absorption costing?

- A) Direct materials used in the current period.
- B) Rent for the warehouse used to store direct materials.
- C) Salaries paid to the top management in the company.
- D) Vacation pay accrued for the production workers.

61) The term "gross margin" for a manufacturing firm refers to the excess of sales over:

- A) cost of goods sold, excluding fixed indirect manufacturing costs.
- B) all variable costs, including variable marketing and administrative costs.
- C) cost of goods sold, including fixed indirect manufacturing costs.
- D) variable costs, excluding variable marketing and administrative costs.

62) Given the following information for a retail company, what is the total cost of goods purchased for the period?

Purchases discounts	\$ 3,500
Transportation-in	6,700
Ending inventory	35,000
Gross merchandise cost	304,000
Purchases returns	8,400
Beginning inventory	27,000
Sales discounts	10,300

- A) \$298,800
- B) \$290,800
- C) \$282,100
- D) \$304,000

63) A company had beginning inventories as follows: Direct Materials, \$300; Work-in-Process, \$500; Finished Goods, \$700. It had ending inventories as follows: Direct Materials, \$400; Work-in-Process, \$600; Finished Goods, \$800. Material Purchases net were \$1,400, Direct Labor \$1,500, and Manufacturing Overhead \$1,600. What is the Cost of Goods Sold for the period?

- A) \$4,100.
- B) \$4,200.
- C) \$4,300.
- D) \$4,400.

64) Compute the Cost of Goods Sold for 2019 using the following information:

Direct Materials, Jan. 1, 2019	\$ 40,000
Work-in-Process, Dec. 31, 2019	69,000
Direct Labor	48,500
Finished Goods, Dec. 31, 2019	105,000
Finished Goods, Jan. 1, 2019	128,000
Manufacturing Overhead	72,500
Direct Materials, Dec. 31, 2019	43,000
Work-in Process, Jan. 1, 2019	87,000
Purchases of Direct Material	75,000

- A) \$244,000
- B) \$234,000
- C) \$211,000
- D) \$198,000

65) Foxburg Company has the following information:

	Work-in-Process	Finished Goods	Materials
Beginning inventory	\$ 300	\$ 400	\$ 500
Ending inventory	\$ 700	\$ 900	\$ 1,500
Purchases of materials	\$ 7,700		
Cost of Goods Sold	\$ 15,600		
Manufacturing overhead	\$ 4,300		

What was the direct labor for the period?

- A) \$5,500.
- B) \$5,800.
- C) \$6,300.
- D) \$6,800.

66) Foxburg Company has the following information:

	Work-in-Process	Finished Goods	Materials
Beginning inventory	\$ 300	\$ 400	\$ 500
Ending inventory	\$ 700	\$ 900	\$ 1,500
Purchases of materials (net)	\$ 7,700		
Cost of Goods Sold	\$ 15,600		
Manufacturing overhead	\$ 4,300		

What was the cost of goods available for sale for the period?

- A) \$16,800
- B) \$16,500
- C) \$16,100
- D) \$15,100

67) During the year, a manufacturing company had the following operating results:

Beginning work-in-process inventory	\$ 45,000
Beginning finished goods inventory	\$ 190,000
Direct materials used in production	\$ 308,000
Direct labor	\$ 475,000
Manufacturing overhead incurred	\$ 250,000
Ending work-in-process inventory	\$ 67,000
Ending finished goods inventory	\$ 89,000

What is the cost of goods manufactured for the year?

- A) \$1,011,000
- B) \$1,134,000
- C) \$1,033,000
- D) \$1,112,000

68) During April, the Meade Enterprises had the following operating results:

Sales revenue	\$ 1,500,000
Gross margin	\$ 600,000
Ending work-in-process inventory	\$ 50,000
Beginning work-in-process inventory	\$ 80,000
Ending finished goods inventory	\$ 100,000
Beginning finished goods inventory	\$ 125,000
Marketing costs	\$ 250,000
Administrative costs	\$ 150,000

What is the cost of goods manufactured for April?

- A) \$900,000
- B) \$875,000
- C) \$925,000
- D) \$905,000

69) How would property taxes paid on a factory building be classified in a manufacturing company?

- A) Fixed, period cost.
- B) Fixed, product cost.
- C) Variable, period cost.
- D) Variable, product cost.

70) How would miscellaneous supplies used in assembling a product be classified for a manufacturing company?

- A) Fixed, period cost.
- B) Fixed, product cost.
- C) Variable, period cost.
- D) Variable, product cost.

71) How would a 5% sales commission paid to sales personnel be classified in a manufacturing company?

- A) Fixed, period cost.
- B) Fixed, product cost.
- C) Variable, period cost.
- D) Variable, product cost.

72) The student health center employs one doctor, three nurses, and several other employees. How would you classify (1) the nurses' salary and (2) film and other materials used in radiology to take X-rays? Assume the activity is the number of students visiting the health center.

	<b>Nurse's Salaries</b>	<b>Film and Other Materials Used in Radiology</b>
a.	Fixed cost	Fixed cost
b.	Fixed cost	Variable cost
c.	Variable cost	Fixed cost
d.	Variable cost	Variable cost

- A) Option A
- B) Option B
- C) Option C
- D) Option D

73) Barton's Taco Tico has four taco makers and ten other employees who take orders from customers and perform other tasks. The four taco makers and the other employees are paid an hourly wage. How would you classify (1) the wages paid to the taco makers and other employees and (2) materials (e.g., cheeses, salsa, tomatoes, lettuce, taco shells, etc.) used to make the tacos? Assume the activity is the number of tacos made.

	<b>Employees' Wages</b>	<b>Materials to Make the Tacos</b>
A.	Fixed cost	Fixed cost
B.	Fixed cost	Variable cost
C.	Variable cost	Fixed cost
D.	Variable cost	Variable cost

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

74) The difference between variable costs and fixed costs is (CMA adapted)

- A) Unit variable costs fluctuate and unit fixed costs remain constant.
- B) Unit variable costs are fixed over the relevant range and unit fixed costs are variable.
- C) Total variable costs are constant over the relevant range, while fixed costs change in the long-term.
- D) Total variable costs are variable over the relevant range but fixed in the long-term, while fixed costs never change.

75) Which terms below correctly describe the cost of the black paint used to paint the dots on a pair of dice?

	<b>Variable Cost</b>	<b>Administrative Cost</b>
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No

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

76) Manufacturing overhead:

- A) can be either a variable cost or a fixed cost.
- B) includes the costs of shipping finished goods to customers.
- C) includes all factory labor costs.
- D) includes all fixed costs.

77) Which of the following statements is (are) true?

(1) The term full cost refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.

(2) The fixed cost per unit is considered constant despite changes in volume of activity within the relevant range.

A) Only (1) is true.

B) Only (2) is true.

C) Both of these are true.

D) None of these are true.

78) The estimated unit costs for a company to produce and sell a product at a level of 12,000 units per month are as follows:

Cost Item	Estimated Unit Cost
Direct material	\$ 32
Direct labor	20
Variable manufacturing overhead	15
Fixed manufacturing overhead	6
Variable selling expenses	3
Fixed selling expenses	4

What are the estimated conversion costs per unit?

A) \$35

B) \$41

C) \$44

D) \$48

79) The estimated unit costs for a company to produce and sell a product at a level of 12,000 units per month are as follows:

Cost Item	Estimated Unit Cost
Direct material	\$ 32
Direct labor	20
Variable manufacturing overhead	15
Fixed manufacturing overhead	6
Variable selling expenses	3
Fixed selling expenses	4

What are the estimated prime costs per unit?

A) \$73

B) \$32

C) \$67

D) \$52

80) The estimated unit costs for a company to produce and sell a product at a level of 12,000 units per month are as follows:

Cost Item	Estimated Unit Cost
Direct material	\$ 32
Direct labor	20
Variable manufacturing overhead	15
Fixed manufacturing overhead	6
Variable selling expenses	3
Fixed selling expenses	4

What are the estimated variable costs per unit?

- A) \$70
- B) \$38
- C) \$67
- D) \$52

81) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct materials	\$ 200per unit

What is the variable manufacturing cost per unit?

- A) \$380
- B) \$430
- C) \$480
- D) \$730



82) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct materials	\$ 200per unit

What is the total manufacturing cost per unit?

- A) \$380
- B) \$430
- C) \$480
- D) \$730

83) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct materials	\$ 200per unit

What is the full cost per unit of making and selling the product?

- A) \$430
- B) \$480
- C) \$530
- D) \$730

84) Grover Company has the following data for the production and sale of 2,000 units.

Sales price per unit	\$ 800per unit
Fixed costs:	
Marketing and administrative	\$ 400,000per period
Manufacturing overhead	\$ 200,000per period
Variable costs:	
Marketing and administrative	\$ 50per unit
Manufacturing overhead	\$ 80per unit
Direct labor	\$ 100per unit
Direct materials	\$ 200per unit

What is the contribution margin per unit?

- A) \$70
- B) \$320
- C) \$370
- D) \$430

85) The following information was collected from the accounting records of the Part SX9 for 3,000 units:

	Per Unit	Per Period
Sales price	\$ 350	
Direct Materials	80	
Direct Labor	40	
Overhead	60	\$ 90,000
Marketing	20	
Administrative		60,000

What is Part SX9's total cost per unit?

- A) \$180.
- B) \$200.
- C) \$210.
- D) \$250.

86) Mountainburg Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

	Product L	Product W
Direct materials	\$ 44	\$ 36
Machining labor (\$12/hour)	18	15
Assembly labor (\$10/hour)	30	10
Variable overhead (\$8/hour)	36	18
Fixed overhead (4/hour)	18	9
Total Manufacturing Cost	<u>\$ 146</u>	<u>\$ 88</u>
Estimated selling price per unit	\$ 170	\$ 100
Actual research and development costs	\$240,000	\$175,000
Estimated advertising costs	\$500,000	\$350,000

Mountainburg's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are **not** allocated to individual products.

For Mountainburg's Product L, the costs for direct materials, machining labor, and assembly labor represent

- A) Conversion costs.
- B) Period costs.
- C) Prime costs.
- D) Common costs.

87) Mountainburg Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

	Product L	Product W
Direct materials	\$ 44	\$ 36
Machining labor (\$12/hour)	18	15
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Estimated selling price per unit	\$ 170	\$ 100
Actual research and development costs	\$240,000	\$175,000
Estimated advertising costs	\$500,000	\$350,000

Mountainburg's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are **not** allocated to individual products.

The difference between the \$100 estimated selling price for Mountainburg's Product W and its total manufacturing cost of \$88 represents

- A) Contribution margin per unit.
- B) Gross margin per unit.
- C) Variable cost per unit.
- D) Operating profit per unit.

88) Mountainburg Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

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Estimated advertising costs	\$500,000	\$350,000

Mountainburg's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are **not** allocated to individual products.

The total overhead cost of \$27 for Mountainburg's Product W is a(n)

- A) Sunk cost.
- B) Opportunity cost.
- C) Variable cost.
- D) Mixed cost.

89) Mountainburg Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

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Mountainburg's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are **not** allocated to individual products.

Direct material costs for Mountainburg's two new products are

- A) Prime costs.
- B) Conversion costs.
- C) Opportunity costs.
- D) Period costs.

90) Mountainburg Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

	Product L	Product W
Direct materials	\$ 44	\$ 36
Machining labor (\$12/hour)	18	15
Assembly labor (\$10/hour)	30	10
Variable overhead (\$8/hour)	36	18
Fixed overhead (4/hour)	18	9
Total Manufacturing Cost	<u>\$ 146</u>	<u>\$ 88</u>
Estimated selling price per unit	\$ 170	\$ 100
Actual research and development costs	\$240,000	\$175,000
Estimated advertising costs	\$500,000	\$350,000

Mountainburg's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are **not** allocated to individual products.

The advertising costs for the product selected by Mountainburg will be

- A) Prime costs.
- B) Conversion costs.
- C) Period costs.
- D) Opportunity costs.

91) Under full absorption costing, which of the following are included in product costs?

- A) Only direct materials and direct labor.
- B) Only variable manufacturing costs.
- C) Only conversion costs.
- D) All fixed and variable manufacturing costs.

92) Ramos Company has the following unit costs:

Variable manufacturing overhead	\$ 13
Direct materials	12
Direct labor	17
Fixed manufacturing overhead	10
Fixed marketing and administrative	8

What cost per unit would be used for product costs under full absorption costing?

- A) \$29
- B) \$42
- C) \$52
- D) \$60

93) Ramos Company has the following unit costs:

Variable manufacturing overhead	\$ 13
Direct materials	12
Direct labor	17
Fixed manufacturing overhead	10
Fixed marketing and administrative	8

What cost per unit would be used for product costs under variable costing?

- A) \$29
- B) \$42
- C) \$52
- D) \$60

94) Vegas Company has the following unit costs:

Variable manufacturing overhead	\$ 25
Direct materials	20
Direct labor	19
Fixed manufacturing overhead	12
Variable marketing and administrative	7

Vegas produced and sold 10,000 units. If the product sells for \$100, what is the gross margin?

- A) \$170,000
- B) \$240,000
- C) \$290,000
- D) \$360,000

95) Vegas Company has the following unit costs:

Variable manufacturing overhead	\$ 25
Direct materials	20
Direct labor	19
Fixed manufacturing overhead	12
Variable marketing and administrative	7

Vegas produced and sold 10,000 units. If the product sells for \$100, what is the contribution margin?

- A) \$170,000
- B) \$240,000
- C) \$290,000
- D) \$360,000



96) Vegas Company has the following unit costs:

Variable manufacturing overhead	\$ 25
Direct materials	20
Direct labor	19
Fixed manufacturing overhead	12
Variable marketing and administrative	7

Vegas produced and sold 10,000 units. If the product sells for \$100, what is the operating profit under full absorption costing?

- A) \$170,000
- B) \$240,000
- C) \$290,000
- D) \$360,000

97) Vegas Company has the following unit costs:

Variable manufacturing overhead	\$ 25
Direct materials	20
Direct labor	19
Fixed manufacturing overhead	12
Variable marketing and administrative	7

Vegas produced and sold 10,000 units. If the product sells for \$100, what is the operating profit using a contribution margin income statement?

- A) \$170,000
- B) \$240,000
- C) \$290,000
- D) \$360,000

98) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

Cost of goods sold using variable costing is:

- A) \$110,000
- B) \$120,000
- C) \$144,000
- D) \$40,000

99) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

Cost of goods sold using absorption costing is:

- A) \$246,667
- B) \$120,000
- C) \$180,000
- D) \$40,000

100) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

The variable costing operating income is:

- A) \$120,000
- B) \$140,000
- C) \$104,000
- D) \$128,000

101) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

The absorption costing operating income is:

- A) \$120,000
- B) \$140,000
- C) \$128,000
- D) \$112,000

102) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

The variable costing ending inventory is:

- A) \$36,000
- B) \$8,000
- C) \$40,000
- D) \$24,000

103) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

The absorption costing ending inventory is:

- A) \$40,000
- B) \$24,000
- C) \$36,000
- D) \$8,000

104) The following information is available for Barnes Company for the fiscal year ended December 31:

Beginning finished goods inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	\$ 400,000
Materials cost	\$ 96,000
Variable conversion cost used	\$ 48,000
Fixed manufacturing cost	\$ 72,000
Indirect operating costs (fixed)	\$ 80,000

The difference between the variable costing ending inventory and the absorption costing ending inventory is:

- A) 800 units times \$15 per unit fixed manufacturing cost.
- B) 800 units times \$10 per unit materials cost.
- C) 800 units times \$20 per unit variable conversion cost plus \$15 per unit fixed manufacturing cost.
- D) 800 units times \$20 per unit variable conversion cost plus \$15 per unit fixed manufacturing cost plus \$16.67 per unit indirect operating costs.

105) Absorption costing measures contribution to operating profit as:

- A) Sales less unit level costs spent on goods sold.
- B) Sales less variable cost of goods sold.
- C) Sales less absorption cost of goods sold.
- D) Sales less all costs including operating expenses.

106) Inventoriable costs:

- A) include only the prime costs of manufacturing a product.
- B) include only the conversion costs of providing a service.
- C) exclude fixed manufacturing costs.
- D) are regarded as assets until the units are sold.

107) The following information is available for the Weston Consulting Company for the fiscal year ended December 31.

Gross margin	\$ 170,000
Operating profit	\$ 65,500
Revenues	\$ 809,000
Income tax rate	34%

**Required:**

- (a) Compute the cost of services sold.
- (b) Compute the total marketing and administrative costs.
- (c) Compute net income.

108) The following information is available for the Cherryville Enterprises, Inc. for the fiscal year ended December 31.

Revenues	\$ 900,000
Gross margin	\$ 315,000
Operating profit	85,000
Income tax rate	32%

**Required:**

- (a) Compute the cost of goods sold.
- (b) Compute the total marketing and administrative costs.
- (c) Compute net income.

109) The following information is available for the Tenor Music Store for the fiscal year ended December 31.

Ending inventory	\$ 100,100
Transportation-in costs	\$ 8,900
Purchase discounts	\$ 15,000
Beginning inventory	\$ 79,000
Merchandise cost	\$ 450,000
Purchase returns and allowances	\$ 6,200
Sales revenue	\$ 800,000
Sales discounts	\$ 12,500

**Required:**

- (a) Prepare a cost of goods sold statement for Tenor Music Store.
- (b) Compute the gross margin for the fiscal year ended December 31.

110) **Required:**

Using the table below as a reference, describe whether the following costs incurred in a manufacturing company are (a) fixed or variable and (b) product or period. The first cost item is presented in the table as an example.

	Cost Item	Fixed	Variable	Product	Period
E	Annual audit and tax return fees	X			X
1	Costs (other than food) of running the cafeteria for factory personnel				
2	Direct materials used				
3	Clerical staff in administrative offices				
4	Depreciation of factory machinery*				
5	Property taxes on the factory				
6	Insurance premiums on delivery vans				
7	Factory custodian pay				
8	Sales commissions				
9	Rent paid for corporate jet				
10	Transportation-in costs for indirect material				

\*Straight-line depreciation method used.

111) The Torchdown Company began operations several years ago. The company purchased a building, and since only half of the space was needed for operations, the remaining space was rented to another firm for rental revenue of \$20,000 per year. The success of Torchdown Company's product has resulted in the company needing more space. The renter's lease will expire next month and Torchdown will **not** renew the lease in order to use the space to expand operations and meet demand.

The company's product requires direct materials that cost \$25 per unit. The company employs a production supervisor whose salary is \$2,000 per month. Production line workers are paid \$15 per hour to manufacture and assemble the product. The company rents the equipment needed to produce the product at a rental cost of \$1,500 per month. Additional equipment will be needed as production is expanded and the monthly rental charge for this equipment will be \$900 per month. The building is depreciated on a straight-line basis at \$9,000 per year.

The company spends \$40,000 per year to market the product. Shipping costs for each unit are \$20 per unit. The cost of electricity and other utilities used for product is \$2 per unit. The company plans to liquidate several investments in order to expand production. These investments currently earn a return of \$8,000 per year.

**Required:**

Using the table below as a reference, describe which cost headings best identify the costs listed in the first column. As more than one type of cost can be applicable, ensure to list all possibilities when entering your answers (e.g., a cost might be a variable cost, and an overhead cost).

	Name of cost	Variable cost	Fixed cost	Direct materials	Direct labor	Mfg. overhead	Period cost	Opportunity cost
1	Amount that can be earned renting building							
2	Cost of direct materials							
3	Salary of production supervisor							
4	Cost of direct labor							
5	Equipment rental cost							
6	Depreciation on building							
7	Marketing costs							
8	Shipping costs							
9	Electrical costs							
10	Foregone investment income							



112) The following cost and inventory data were taken from the records of the Flagstaff Company for the year:

Costs incurred:

Depreciation, factory equipment	\$ 30,000
Depreciation, office equipment	7,000
Supplies, factory	1,500
Maintenance, factory equipment	20,000
Utilities, factory	8,000
Sales commissions	30,000
Indirect labor	54,500
Rent, factory building	70,000
Purchases of direct materials (net)	124,000
Direct labor	80,000
Advertising expense	90,000

Inventories:

	January 1	December 31
Direct materials	\$ 9,000	\$ 11,000
Work in process	6,000	21,000
Finished goods	69,000	24,000

**Required:**

- (a) Compute the cost of goods manufactured.
- (b) Compute the cost of goods sold.

113) The Foxboro Manufacturing Company provided you with the following information for the fiscal year ended December 31.

Work-in-process inventory, 12/31	\$ 57,900
Finished goods inventory, 1/1	307,400
Direct labor costs incurred	1,004,300
Manufacturing overhead costs	2,693,400
Direct materials inventory, 1/1	250,800
Finished goods inventory, 12/31	511,000
Direct materials purchased	1,750,200
Work-in-process inventory, 1/1	101,000
Direct materials inventory, 12/31	169,400

**Required:**

- (a) Compute the total manufacturing costs incurred during the year.
- (b) Compute the total work-in-process during the year.
- (c) Compute the cost of goods manufactured during the year.
- (d) Compute the cost of goods sold during the year.
- (e) Compute the total prime costs for the year.
- (f) Compute the total conversion costs for the year.

114) The cost accountant for the Corner Manufacturing Company has provided you with the following information for the month of July:

	Variable costs Per unit	Total Fixed Costs
Direct labor	\$ 27.50	
Direct materials	84.75	
Manufacturing overhead	14.25	\$ 120,000
Marketing costs	5.30	50,000
Administrative costs	2.90	75,000

**Required:**

Compute the following *per unit* items, assuming the company produced and sold 5,000 units at a price of \$210.00 per unit.

- (a) Total variable cost.
- (b) Variable inventoriable cost.
- (c) Full absorption cost.
- (d) Full cost.
- (e) Contribution margin.
- (f) Gross margin.
- (g) Profit margin.

115) The cost accountant for the Friendly Manufacturing Company has provided you with the following information for the month of July:

	Variable costs Per unit	Total Fixed Costs
Direct labor	\$ 27.50	
Direct materials	84.75	
Manufacturing overhead	14.25	\$ 120,000
Marketing costs	5.30	50,000
Administrative costs	2.90	75,000
Selling price	210.00	

**Required:**

Assuming the company produced and sold 5,000 units, and there were no units in inventory on July 1, prepare the following income statements for the month of July:

- (a) Contribution margin income statement.
- (b) Gross margin income statement.

116) Shuster Industries manufactures baseballs and identified the following costs associated with their manufacturing activity (V = Variable; F = Fixed). The following information is available for the month of June when 25,000 baseballs were produced, but only 23,500 baseballs were sold.

Power to run plant equipment (V)	\$ 25,000
Other selling costs (V)	149,150
Indirect labor (F)	50,000
Property taxes on factory building (F)	12,500
Marketing costs (V)	30,000
Factory Supervisor salaries (F)	125,000
Direct materials used (V)	500,000
Depreciation on plant equipment (F)	68,000
Shipping costs to customer (V)	48,800
Indirect material and supplies (V)	37,500
Direct labor (V)	250,000
Administrative salaries (F)	300,000
Insurance on factory building (F)	62,500
Utilities, factory (V)	50,000
General office costs (F)	48,000

**Required:**

Compute the following amounts for July, assuming 30,000 baseballs were produced and sold: (Assume normal production ranges from 15,000 to 40,000 baseballs)

- (a) Total manufacturing costs.
- (b) Total conversion costs.
- (c) Period costs per unit.
- (d) Full costs per unit.

117) Each column below is independent and for a different company. Use the data given, which refers to one year for each example, to find the unknown account balances.

	Company		
	Southeast	Central	Northwest
Direct materials inventory, January 1	(a)	\$ 3,920	\$ 16,640
Direct materials inventory, December 31	\$ 4,850	3,248	14,664
Work-in-process inventory, January 1	2,700	7,526	85,696
Work-in-process inventory, December 31	3,800	3,472	79,800
Finished goods inventory, January 1	1,900	(d)	17,888
Finished goods inventory, December 31	300	4,928	29,536
Purchases of direct materials	16,100	13,440	66,768
Cost of goods manufactured during this year	(b)	30,486	326,320
Total manufacturing costs	55,550	26,432	320,424
Cost of goods sold	56,050	30,464	314,673
Gross margin	(c)	18,368	666,931
Direct labor	26,450	4,256	129,688
Direct materials used	15,300	(e)	68,744
Manufacturing overhead	13,800	8,064	(g)
Sales revenue	103,300	(f)	981,604

118) The following data appeared in Moline Company's records on December 31:

Direct Materials Inventory, Dec. 31	\$ 535,500
Direct Materials purchased during the year	2,268,000
Finished Goods Inventory, Dec. 31	567,000
Indirect labor	201,600
Direct labor	2,520,000
Factory heat, light, and power	234,360
Factory depreciation	396,900
Administrative salaries	323,820
Miscellaneous factory cost	200,970
Marketing costs	233,100
Other administrative costs	113,400
Maintenance on factory equipment	76,230
Insurance on factory equipment	119,700
Distribution costs	10,080
Taxes on manufacturing property	82,530
Legal fees on customer complaint	51,660
Direct materials put into production	2,407,230
Work-in-Process Inventory, Dec. 31	154,980

On January 1, the Finished Goods Inventory account had a balance of \$280,000, and the Work-in-Process Inventory account had a balance of \$90,650. Sales revenue for the year was \$6,687,500.

**Required:**

- (a) Prepare a cost of goods manufactured statement.
- (b) Prepare a cost of goods sold statement.
- (c) Prepare a gross margin income statement.

119) The information below has been taken from the cost records of Gator Corp. for the past year:

Raw materials used in production	\$ 326
Total manufacturing costs charged to production during the year (includes \$135 of factory overhead)	686
Cost of goods available for sale	826
Selling & administrative expenses	25

Inventories:	Beginning	Ending
Direct materials	75	85
Work in process	80	30
Finished goods	90	110

**Required:**

- (a) Calculate the cost of direct materials purchased during the year.
- (b) Calculate the direct labor costs charged to production during the year.
- (c) Calculate the cost of goods manufactured during the year.
- (d) Calculate the cost of goods sold for the year.

120) Information from the records of the Shawnee Production Company for the month of January is as follows:

Purchases of direct materials	\$ 18,000
Indirect labor	5,000
Direct labor	10,400
Depreciation on factory machinery	3,000
Sales	55,300
Selling and administrative expenses	6,300
Rent on factory building	7,000

Inventories:	January 1	January 31
Direct materials	\$ 8,000	\$ 8,700
Work-in-process	2,100	3,200
Finished goods	5,000	5,700

**Required:**

- (a) Prepare a statement of cost of goods manufactured and sold for the month of January.
- (b) Prepare a gross margin income statement for the month of January.

121) The information below has been taken from the cost records of Toro Corp. for the past year:

Raw materials used in production	\$ 572
Total manufacturing costs charged to production during the year (includes \$255 of factory overhead)	1,095
Cost of goods available for sale	1,415
Selling & administrative expenses	255

Inventories:	Beginning	Ending
Direct materials	175	155
Work in process	220	190
Finished goods	290	310

**Required:**

- (a) Calculate the cost of direct materials purchased during the year.
- (b) Calculate the direct labor costs charged to production during the year.
- (c) Calculate the cost of goods manufactured during the year.
- (d) Calculate the cost of goods sold for the year.

122) Information from the records of the Navaho Industries for the month of July is as follows:

Purchases of direct materials	\$ 24,000
Indirect labor	6,500
Direct labor	13,200
Depreciation on factory machinery	3,600
Sales	75,300
Selling and administrative expenses	8,900
Rent on factory building	8,400

Inventories:	July 1	July 31
Direct materials	\$ 8,000	\$ 6,700
Work-in-process	1,100	1,600
Finished goods	9,000	6,800

**Required:**

- (a) Prepare a statement of cost of goods manufactured and sold for the month of July.
- (b) Prepare a gross margin income statement for the month of July.

123) The Yellville Company provided you with the following information for the fiscal year ended December 31.

Work-in-process inventory, 12/31	\$ 115,800
Finished goods inventory, 1/1	614,800
Direct labor costs incurred	2,008,600
Manufacturing overhead costs	5,368,800
Direct materials inventory, 1/1	501,600
Finished goods inventory, 12/31	1,022,000
Direct materials purchased	3,500,400
Work-in-process inventory, 1/1	202,000
Direct materials inventory, 12/31	338,800

**Required:**

- (a) Compute the total manufacturing costs incurred during the year.
- (b) Compute the total work-in-process during the year.
- (c) Compute the cost of goods manufactured during the year.
- (d) Compute the cost of goods sold during the year.
- (e) Compute the total prime costs for the year.
- (f) Compute the total conversion costs for the year.

124) The Younce Equipment Company provided you with the following information for the fiscal year ended December 31.

Work-in-process inventory, 12/31	\$ 28,950
Finished goods inventory, 1/1	153,700
Direct labor costs incurred	502,150
Manufacturing overhead costs	1,364,700
Direct materials inventory, 1/1	125,400
Finished goods inventory, 12/31	255,500
Direct materials purchased	875,100
Work-in-process inventory, 1/1	50,500
Direct materials inventory, 12/31	84,700

**Required:**

- (a) Compute the total manufacturing costs incurred during the year.
- (b) Compute the total work-in-process during the year.
- (c) Compute the cost of goods manufactured during the year.
- (d) Compute the cost of goods sold during the year.



125) Mobile Device Retail has collected the following information for May:

Sales revenue	\$	1,650,000
Store rent		84,000
Utilities		57,200
Sales commissions		247,500
Merchandise inventory, May 1		118,200
Merchandise inventory, May 31		124,600
Freight-in		54,600
Administrative costs		115,100
Merchandise purchases		1,091,000

**Required:**

Prepare a gross margin income statement for the month of May.

126) Fowler Retail has collected the following information for August:

Sales revenue	\$	1,155,000
Store rent		58,800
Utilities		40,400
Sales commissions		173,300
Merchandise inventory, 8/1		87,220
Merchandise inventory, 8/31		82,740
Freight-in		30,300
Administrative costs		80,600
Merchandise purchases		763,700

**Required:**

Prepare a gross margin income statement for the month of August.

127) Zach Hartman has developed a new electronic device that he has decided to produce and market. The production facility will be in a nearby industrial park which Zach will rent for \$4,000 per month. Utilities will cost \$500 per month. He will use his personal computer, which he purchased for \$2,000 last year, to monitor the production process. The computer will become obsolete before it wears out from use. The computer will be depreciated at the rate of \$1,000 per year. He will rent production equipment at a monthly cost of \$8,000. Zach estimates the materials cost per finished unit of product to be \$50, and the labor cost to be \$10. He will hire hourly paid workers and spend his time promoting the product. To do this, he will quit his job which pays \$4,500 per month. Advertising will cost \$2,000 per month. Zach will **not** draw a salary from the new company until it gets well established.

**Required:**

Complete the chart below by placing an "X" under each heading that helps to identify the cost involved. There can be "Xs" placed under more than one heading for a single cost; e.g., a cost might be an overhead cost and a product cost. There would be an "X" placed under each of these headings opposite the cost.

				Product Cost			
	Opportunity Cost	Variable Cost	Fixed Cost	Direct Materials	Direct Labor	Manufacturing Overhead	Selling Cost
Facility rent							
Utilities							
Personal computer depreciation							
Equipment rent							
Materials cost							
Labor cost							
Present salary							
Advertising							

128) A manufacturing company has provided the following data for the month of March:

Inventories:

	Beginning	Ending
Raw materials	\$ 36,000	\$ 24,000
Finished goods	\$ 57,000	\$ 28,000

Raw materials purchased during March totaled \$69,000 and the cost of goods manufactured totaled \$146,000.

**Required:**

- (a) What was the cost of raw materials used in production during March? Show your work.
- (b) What was the cost of goods sold for March? Show your work.

129) During the month of June, Bolder Corporation, a manufacturing company, purchased raw materials costing \$76,000. The cost of goods manufactured for the month was \$129,000. The beginning balance in the raw materials inventory account was \$26,000 and the ending balance was \$21,000. The beginning balance in the finished goods inventory account was \$52,000 and the ending balance was \$35,000.

**Required:**

- (a) What was the cost of raw materials used in production during June? Show your work.
- (b) What was the cost of goods sold for June? Show your work.

130) A partial listing of costs incurred at Marshall Corporation during August appears below:

Direct materials	\$ 135,000
Utilities, factory	\$ 11,000
Sales commissions	\$ 69,000
Administrative salaries	\$ 101,000
Indirect labor	\$ 29,000
Advertising	\$ 94,000
Depreciation of production equipment	\$ 31,000
Direct labor	\$ 73,000
Depreciation of administrative equipment	\$ 40,000

**Required:**

- (a) What is the total amount of product costs listed above? Show your work.
- (b) What is the total amount of period costs listed above? Show your work.

131) Grankowski Corporation has provided the following partial listing of costs incurred during November:

Marketing salaries	\$ 47,000
Property taxes, factory	\$ 6,000
Administrative travel	\$ 113,000
Sales commissions	\$ 56,000
Indirect labor	\$ 36,000
Direct materials	\$ 119,000
Advertising	\$ 63,000
Depreciation of production equipment	\$ 56,000
Direct labor	\$ 117,000

**Required:**

- (a) What is the total amount of product costs listed above? Show your work.
- (b) What is the total amount of period costs listed above? Show your work.

132) In October, Youngstown Corporation had sales of \$273,000, selling expenses of \$26,000, and administrative expenses of \$47,000. The cost of goods manufactured was \$183,000. The beginning balance in the finished goods inventory account was \$45,000 and the ending balance was \$34,000.

**Required:**

Prepare an Income Statement in good form for October.

133) In July, Mountain Life, Inc., a merchandising company, had sales of \$295,000, selling expenses of \$24,000, and administrative expenses of \$29,000. The cost of merchandise purchased during the month was \$215,000. The beginning balance in the merchandise inventory account was \$25,000 and the ending balance was \$30,000.

**Required:**

Prepare an Income Statement in good form for July.

134) A number of costs and measures of activity are listed below.

	<b>Cost Description</b>	<b>Possible Measure of Activity</b>
1.	Cost of heating a hardware store	Dollar sales
2.	Windshield wiper blades installed on autos at an auto assembly plant	Number of autos assembled
3.	Cost of tomato sauce used at a pizza shop	Pizzas cooked
4.	Cost of shipping bags of fertilizer to a customer at a chemical plant	Bags shipped
5.	Cost of electricity for production equipment at a snowboard manufacturer	Snowboards produced
6.	Cost of renting production equipment on a monthly basis at a snowboard manufacturer	Snowboards produced
7.	Cost of vaccine used at a clinic	Vaccines administered
8.	Cost of sales at a hardware store	Dollar sales
9.	Receptionist's wages at dentist's office	Number of patients
10.	Salary of production manager at a snowboard manufacturer	Snowboards produced

**Required:**

For each item above, indicate whether the cost is MAINLY fixed or variable with respect to the possible measure of activity listed next to it.

135) A number of costs and measures of activity are listed below.

	<b>Cost Description</b>	<b>Possible Measure of Activity</b>
1.	Cost of renting production equipment on a monthly basis at a surfboard manufacturer	Surfboards produced
2.	Pilot's salary on a regularly scheduled commuter airline	Number of passengers
3.	Cost of dough used at a pizza shop	Pizzas cooked
4.	Janitorial wages at a surfboard manufacturer	Surfboards produced
5.	Cost of shipping bags of garden mulch to a retail garden store	Bags shipped
6.	Salary of production manager at a surfboard manufacturer	Surfboards produced
7.	Property tax on corporate headquarters building	Dollar sales
8.	Cost of heating an electronics store	Dollar sales
9.	Shift manager's wages at a coffee shop	Dollar sales
10.	Cost of bags used in packaging chickens for shipment to grocery stores	Crates of chicken shipped

**Required:**

For each item above, indicate whether the cost is MAINLY fixed or variable with respect to the possible measure of activity listed next to it.

136) A number of costs are listed below.

	<b>Cost Description</b>	<b>Cost Object</b>
1.	Supervisor's wages in a computer manufacturing facility	A particular personal computer
2.	Salary of the president of a home construction company	A particular home
3.	Cost of tongue depressors used in an outpatient clinic at a hospital	The outpatient clinic
4.	Cost of lubrication oil used at the auto repair shop of an automobile dealer	The auto repair shop
5.	Manger's salary at a hotel run by a chain of hotels	The particular hotel
6.	Cost of screws used to secure wood trim in a yacht at a yacht manufacturer	A particular yacht
7.	Accounting professor's salary	The Accounting Department
8.	Cost of a measles vaccine administered at an outpatient clinic at a hospital	A particular patient
9.	Cost of electronic navigation system installed in a yacht at a yacht manufacturer	A particular yacht
10.	Wood used to build a home	A particular home

**Required:**

For each item above, indicate whether the cost is direct or indirect with respect to the cost object listed next to it.

137) The following data relates to the Sunshine Company:

Direct Materials Inventory, Beginning	\$ 40
Direct Materials Inventory, Ending	50
Direct Materials Purchases	210
Direct Labor	350
Finished Goods Inventory, Beginning	100
Finished Goods Inventory, Ending	95
Factory overhead	153
Work-in-Process Inventory, Beginning	65
Work-in-Process Inventory, Ending	80

**Required:**

- (a) Compute the direct materials used during the year.
- (b) Compute the cost of goods manufactured during the year.
- (c) Compute the cost of goods sold during the year.

138) A computer virus destroyed some of the accounting records for Dorchester Antique Remodeling Company for the years 2019–2021. The following information was salvaged from the computer system.

**Required:**

Determine the correct amounts for A through P.

	12/31/19	12/31/20	12/31/21
Beginning direct materials	\$ 50,250	<b>F</b>	\$ 45,210
Purchases of direct materials	<b>A</b>	65,250	70,125
Ending direct materials	34,165	45,210	<b>L</b>
Direct materials used	91,385	54,205	<b>M</b>
Direct labor	<b>B</b>	155,050	162,000
Manufacturing overhead	115,325	<b>G</b>	127,145
Total manufacturing costs	<b>C</b>	319,255	364,130
Beginning work-in-process inventory	36,450	<b>H</b>	29,635
Ending work-in-process inventory	21,985	29,635	<b>N</b>
Costs of goods manufactured	386,700	<b>I</b>	362,920
Beginning finished goods inventory	37,000	<b>J</b>	42,500
Ending finished goods inventory	<b>D</b>	42,500	39,550
Cost of goods sold	377,500	315,755	<b>O</b>
Net sales	550,000	495,000	<b>P</b>
Selling and Administrative Expenses	135,950	<b>K</b>	130,130
Net income	<b>E</b>	46,250	39,000

139) Ryan's Lazer Lighting Inc. produces lamps. During 2019, the company incurred the following costs:

Factory rent	\$ 80,000
Direct labor used	425,000
Factory utilities	50,000
Direct materials purchases	600,000
Indirect materials	150,000
Indirect labor	90,000

Inventories for the year were:

	January 1	December 31
Direct materials	\$ 100,000	\$ 75,000
Work in process	20,000	10,000
Finished goods	250,000	215,000

**Required:**

Prepare a cost of goods manufactured and sold statement.



- 140) Explain the difference between an outlay cost, an expense, and an opportunity cost.
- 141) Explain the difference between a cost, a cost object, and a cost pool.
- 142) Explain the difference between direct materials inventory, work in process inventory, finished goods inventory, and cost of goods sold.
- 143) Explain the difference between cost of goods manufactured and cost of goods sold.
- 144) Explain the difference between a direct cost and an indirect cost.
- 145) The following information applies to the Jamison Tools Company for the year ended December 31, 2019:

Factory Rent	\$ 330,000
Direct Materials Inventory, Beginning	96,000
Direct Materials Inventory, Ending	87,000
Direct Materials Purchases	654,000
Direct Labor-Wages	425,000
Indirect Labor-Wages	28,000
Finished Goods Inventory, Beginning	25,000
Finished Goods Inventory, Ending	44,000
Indirect Materials	66,000
Plant Utilities	40,000
General and Administrative	101,350
Work-in-Process Inventory, Beginning	27,000
Work-in-Process Inventory, Ending	33,000
Marketing Expenses	225,000
Sales Revenue	2,550,000

**Required:**

Prepare a statement of cost of goods manufactured and an income statement for the year ended December 31, 2019.

146) The following information applies to the Garden Master Company for the year ended December 31, 2019:

Factory Rent	\$ 80,000
Direct Materials Inventory, Beginning	50,000
Direct Materials Inventory, Ending	45,000
Direct Materials Purchases	325,000
Direct Labor-Wages	550,000
Indirect Labor-Wages	25,000
Finished Goods Inventory, Beginning	50,000
Finished Goods Inventory, Ending	75,000
Indirect Materials	50,000
Plant Utilities	25,000
General and Administrative	130,000
Work-in-Process Inventory, Beginning	50,000
Work-in-Process Inventory, Ending	55,000
Marketing Expenses	180,000
Sales Revenue	1,825,000

**Required:**

Prepare a statement of cost of goods manufactured and an income statement for the year ended December 31, 2019.

147) Michael Corporation has provided the following data for the month of July:

Sales	\$ 280,000
Raw materials purchases	76,000
Direct labor cost	42,000
Manufacturing overhead	77,000
Selling expenses	20,000
Administrative expense	35,000

Inventories:

	Beginning	Ending
Raw materials	\$ 22,000	\$ 33,000
Work-in-process	15,000	23,000
Finished good	52,000	43,000

**Required:**

- a. Prepare a Statement of Cost of Goods Manufactured in good form for July.
- b. Prepare an Income Statement in good form for July.

148) The following information is available for the Crossover Company:

Sales: 25,000 units per year at \$45 per unit

Production: 30,000 units in 2019 and 20,000 units in 2020

At the beginning of 2019 there was no inventory

Variable manufacturing costs are \$30.00 per unit

Fixed manufacturing costs are \$150,000 per year

Marketing costs are all fixed at \$75,000 per year

**Required:**

(a) Prepare a gross margin income statement under absorption costing for 2019 and 2020.

Include a column for each year and a total column.

(b) Prepare a contribution margin income statement under variable costing for 2019 and 2020.

Include a column for each year and a total column.

(c) Comment on the results and reconcile any differences in income.

149) Razor Corporation produces and sells a single product at \$40 per unit. During 2019, the company produced 200,000 units, 160,000 of which were sold during the year. All ending inventory was in finished goods inventory; there was no inventory on hand at the beginning of the year. The following data relate to the company's production process:

Direct materials	\$ 550,000
Direct labor	400,000
Variable Manufacturing overhead	100,000
Fixed manufacturing overhead	300,000
Variable marketing and administrative	160,000
Fixed marketing and administrative	110,000

**Required:**

Calculate the following.

(a) The unit cost of ending inventory on the balance sheet prepared for stockholders.

(b) The unit cost of ending inventory on a variable costing balance sheet.

(c) The operating income using absorption costing.

(d) The operating income using variable costing.

(e) The ending inventory using absorption costing.

(f) The ending inventory using variable costing.

(g) A reconciliation of the difference in operating income between absorption costing and variable costing using the shortcut method.

150) Consider the following cost and production information for Barnard Steel Building Company, Inc.

Quantity	Part C-2472		Part D-1340		All other parts	
	144		120		1140	
	Subtotal	Average/unit	Subtotal	Average/unit	Subtotal	Average/unit
<b>Direct costs</b>						
Materials cost	\$ 180,000	\$ 1,250	\$ 405,000	\$ 3,375	\$ 2,446,440	\$ 2,146
Conversion cost	72,000	500	129,000	1,075	974,700	855
<b>Total direct costs</b>	<b>\$ 252,000</b>	<b>\$ 1,750</b>	<b>\$ 534,000</b>	<b>\$ 4,450</b>	<b>3,421,140</b>	<b>\$ 3,001</b>
<b>Indirect costs</b>						
Indirect production cost	885,600	6,150	738,000	6,150	7,011,000	6,150
Indirect operating cost	723,600	5,025	603,000	5,025	5,728,480	5,025
<b>Total indirect costs</b>	<b>\$ 1,609,200</b>	<b>\$ 11,175</b>	<b>\$ 1,341,000</b>	<b>\$ 11,175</b>	<b>\$ 12,739,480</b>	<b>\$ 11,175</b>
<b>Total costs</b>	<b>\$ 1,861,200</b>	<b>\$ 12,925</b>	<b>\$ 1,875,000</b>	<b>\$ 15,625</b>	<b>\$ 16,160,620</b>	<b>\$ 14,176</b>

Additional information:

- Sales revenue: \$20,000,000.
- Beginning inventory: \$1,150,000.
- Sales of part D-1340: 80 units.
- Sales of all other parts are the same as the number of units produced.
- Sales price of part D-1340: \$35,500 per unit
- The only spending increase was for materials cost due to increased production. All other spending as shown above was unchanged.

Barnard Steel Building Company uses the variable costing method.

**Required:**

- (a) Compute the (1) contribution margin, (2) operating income, and (3) ending inventory for Barnard Steel Building Company.
- (b) Assume that sales of part D-1340 increase by 30 units to 110 units during the given period (production remains constant). Re-compute the above amounts.
- (c) Jaime Porter, the controller of Barnard Steel Building Company, is considering the use of absorption costing instead of variable costing to be in line with financial reporting requirements. She knows that the use of a different costing method will give rise to different incentives. Explain to her how alternative methods of calculating product costs create different incentives.

151) Consider the following cost and production information for Darrell Building Components, Inc.

Quantity	Part C-1849		Part D-1251		All other parts	
	72		60		570	
	Subtotal	Average Per unit	Subtotal	Average Per unit	Subtotal	Average Per unit
<b>Direct costs</b>						
Materials cost	\$ 45,000	\$ 625	\$ 101,400	\$ 1,690	\$ 611,610	\$ 1,073
Conversion cost	18,000	250	32,400	540	243,960	428
<b>Total direct costs</b>	<b>\$ 63,000</b>	<b>\$ 875</b>	<b>\$ 133,800</b>	<b>\$ 2,230</b>	<b>855,570</b>	<b>\$ 1,501</b>
<b>Indirect costs</b>						
Indirect manufacturing cost	221,400	3,075	184,500	3,075	1,752,750	3,075
Indirect operating cost	181,080	2,515	150,900	2,515	1,433,550	2,515
<b>Total indirect costs</b>	<b>\$ 402,480</b>	<b>\$ 5,590</b>	<b>\$ 335,400</b>	<b>\$ 5,590</b>	<b>\$ 3,186,300</b>	<b>\$ 5,590</b>
<b>Total costs</b>	<b>\$ 465,480</b>	<b>\$ 6,465</b>	<b>\$ 469,200</b>	<b>\$ 7,820</b>	<b>\$ 4,041,870</b>	<b>\$ 7,091</b>

Additional information:

- Sales revenue: \$5,200,000.
- Beginning inventory: \$275,000.
- The only spending increase was for materials cost due to increased production. All other spending as shown above was unchanged.
- Sales of all parts are the same as the number of units produced.

Darrell Building Components, Inc. uses the absorption costing method.

**Required:**

- (a) Compute the (1) gross margin, (2) operating income, and (3) ending inventory for Darrell Building Components, Inc.
- (b) Assume that production of part D-1251 increases by 25 units during the given period (sales remain constant). Re-compute the above amounts.
- (c) Thane Smith, the cost manager of Darrell Building Components, argues with the controller that variable costing is a better method for product costing. Using the information in part (b) above, re-compute the operating income for Darrell Building Components using variable costing. Explain any differences in the operating incomes obtained under the two different methods.

152) Hurwitz Corporation had the following activities during 2019:

Raw Materials:

Inventory, Jan. 1, 2019	\$	200,000
Purchases of Raw Materials		318,000
Inventory, Dec. 31, 2019		210,000
Direct Manufacturing Labor		180,000
Plant Utilities		50,000
Plant and Equipment Depreciation		40,000
Indirect Materials		30,000
Indirect Labor		150,000
Other Manufacturing Overhead		60,000
Sales Revenues		1,250,000
Selling and Administrative Expenses		150,000
Income Tax Rate		30 %
Work-in-process Inventory, Dec. 31, 2019		120,000
Work-in-process Inventory, Jan. 1, 2019		64,000
Finished Goods Inventory, Jan. 1, 2019		80,000
Finished Goods Inventory, Dec. 31, 2019		150,000

**Required:**

- (a) Prepare a schedule of cost of goods manufactured for 2019.
- (b) Prepare a schedule of cost of goods sold for 2019.
- (c) Prepare an income statement for 2019.

153) Styling Toys, Inc. (STI) manufactures a variety of electronic toys for children aged 3 to 14 years. The company started as a Ma & Pa basement operation, and grew steadily over the last nine years. It now employs over 100 people and has sales revenue of over \$250 million.

Samantha Marks, the CEO of STI also recognizes that competition has increased during this period; therefore future growth will **not** be easy.

Marks recognizes that one of the areas of weakness is the accounting and costing system. Marks' maternal uncle, Zack, had maintained the accounts for the company. He meticulously kept track of all the invoices that were received, payments made, and painstakingly prepared crude annual reports. With Zack passing away at the age of 85, Marks decided to hire a professional cost management expert to keep track of the company's costs. She hired Dona FalconWright, who had just completed her CMA.

After acquainting Falcon with the company and its people, Marks decided to get down to business. She called Falcon to her office to have a serious conversation about accounting and costing, in particular.

**Marks:** Dona, I would like you to pay particular attention to developing an official costing system. Currently, we don't have one. I believe this should be your first priority because competition is rising and if we do **not** understand our costs, we might start losing sales to our rivals.

**Falcon:** I understand your point very well, Ms. Marks.

**Marks:** Call me Sam.

**Falcon:** Very well, Sam. I have a few ideas that I picked up from my CMA courses that I think are worth implementing. However, it looks like we need to start with the basics.

**Required:**

Assume the role of Dona Falcon. Write a brief report outlining the basics of a cost management information system. Include in your report the following:

- Resources and costs
- Supply of resources vs. the use of resources
- Classification of costs (three dimensions of resources)
- Alternative costing systems