## CHAPTER 2 <br> AN INTRODUCTION TO COST TERMS AND PURPOSES

## TRUE/FALSE

1. Products, services, departments, and customers may be cost objects.

| Answer: | True | Difficulty: 1 | Objective: 1 |
| :--- | :--- | :--- | :--- |

Terms to Learn: cost object
2. Costs are accounted for in two basic stages: assignment followed by accumulation.
Answer: False Difficulty: $1 \quad$ Objective: 1

Terms to Learn: cost accumulation
Costs are accounted for in two basic stages: accumulation followed by assignment.
3. Actual costs and budgeted costs are two different terms referring to the same thing.
Answer: False Difficulty: $1 \quad$ Objective: 1

Terms to Learn: budgeted costs
Budgeted costs are what are planned before the beginning of the accounting period, while actual costs are those costs compiled at the end of the accounting period.
4. Accountants define a cost as a resource to be sacrificed to achieve a specific objective.

| Answer: | True | Difficulty: 1 | Objective: | 1 |
| :--- | :--- | :--- | :--- | :--- |
| Terms to Learn: cost |  |  |  |  |

5. A cost object is always either a product or a service.

| Answer: $\quad$ False | Difficulty: 2 | Objective: 1 |
| :--- | :--- | :--- | :--- |
| Terms to Learn: cost object |  |  |
| A cost object could be anything management wishes to determine the cost of, for |  |  |
| example, a department. |  |  |

6. A department could be considered a cost object.

Answer: True Difficulty: $2 \quad$ Objective: 1
Terms to Learn: cost object
7. The same cost may be direct for one cost object and indirect for another cost object.

Answer: True Difficulty: $3 \quad$ Objective: 2
Terms to Learn: cost object
8. Assigning direct costs poses more problems than assigning indirect costs.

Answer: False Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object, indirect costs of a cost object Tracing direct costs is quite straightforward, whereas assigning indirect costs to a number of different cost objects can be very challenging.
9. Improvements in information-gathering technologies are making it possible to trace more costs as direct.

Answer: True Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object
10. Misallocated indirect costs may lead to promoting products that are not profitable.

| Answer: | True | Difficulty: | 2 |
| :--- | :--- | :--- | :--- |$\quad$ Objective: 2

11. The materiality of the cost is a factor in classifying the cost as a direct or indirect cost.

Answer: True Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object, indirect costs of a cost object
12. The cost of a customized machine only used in the production of a single product would be classified as a direct cost.

Answer: True Difficulty: $1 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object
13. Some fixed costs may be classified as direct manufacturing costs.

## Answer: True Difficulty: $1 \quad$ Objective: 2

Terms to Learn: fixed costs, direct costs of a cost object
14. The distinction between direct and indirect costs is clearly set forth in Generally Accepted Accounting Principles (GAAP).
Answer: False Difficulty: $2 \quad$ Objective: 2

Terms to Learn: direct costs of a cost object, indirect costs of a cost object A cost object could be anything management wishes to determine the cost of, for example.
15. Fixed costs have no cost driver in the short run, but may have a cost driver in the long run.

Answer: True Difficulty: $2 \quad$ Objective: 3

Terms to Learn: cost driver
16. Costs that are difficult to change over the short run are always variable over the long run.

| Answer: | True | Difficulty: | 2 | Objective: |
| :--- | :--- | :--- | :--- | :--- |
| Terms to Learn: | 3 |  |  |  |
| variable cost |  |  |  |  |

17. A decision maker cannot adjust capacity over the short run.

Answer: True Difficulty: $1 \quad$ Objective: 3
Terms to Learn: fixed cost
18. Fixed costs vary with the level of production or sales volume.

Answer: False Difficulty: $1 \quad$ Objective: 3
Terms to Learn: fixed cost
Variable costs vary with the level of production or sales volume.
19. Currently, most administrative personnel costs would be classified as fixed costs.
Answer: $\quad$ True
Difficulty: 1
Objective: 3
Terms to Learn: fixed cost
20. Fixed costs depend on the resources used, not the resources acquired.

Answer: False Difficulty: $2 \quad$ Objective: 3
Terms to Learn: fixed cost
Fixed costs depend on the resources acquired, and not whether the resources are used or not.
21. The variable cost per unit of a product should stay the same throughout the relevant range of production.

Answer: True Difficulty: $2 \quad$ Objective: 3
Terms to Learn: variable cost, relevant range
22. An appropriate cost driver for shipping costs might be the number of units shipped.

| Answer: | True | Difficulty: 2 | Objective: 3 |
| :--- | :--- | :--- | :--- | :--- |
| Terms to Learn: | cost driver |  |  |

23. When making decisions using fixed costs, the focus should be on total costs and not unit costs.

Answer: True Difficulty: $2 \quad$ Objective: 4

Terms to Learn: fixed cost
24. When 50,000 units are produced the fixed cost is $\$ 10$ per unit. Therefore, when 100,000 units are produced fixed costs will remain at $\$ 10$ per unit.

Answer: False Difficulty: $3 \quad$ Objective: 4
Terms to Learn: fixed cost, unit cost
When 100,000 units are produced fixed costs will decrease to $\$ 5$ per unit.
25. Unit costs and average costs are really the same thing.

Answer: True Difficulty: $2 \quad$ Objective: 4
Terms to Learn: average cost, unit cost
26. Service-sector companies provide services or intangible products to their customers.
$\begin{array}{lllll}\text { Answer: } & \text { True } & \text { Difficulty: } & 1 & \text { Objective: } \\ \text { Terms to Learn: } & 5\end{array}$
Terms to Learn: service-sector companies
27. America on Line (AOL) would be an example of a merchandising company.

Answer: False Difficulty: 2 Objective: 5
Terms to Learn: service-sector companies, merchandising-sector companies America on Line (AOL) would be an example of a service-sector company.
28. Merchandising companies purchase products and sell them to customers without changing their basic form.

Answer: True Difficulty: $2 \quad$ Objective: 6
Terms to Learn: merchandising-sector companies
29. Merchandising companies only hold two types of inventories: merchandise inventory, and direct material.

Answer: False Difficulty: $2 \quad$ Objective: 6
Terms to Learn: merchandising-sector companies
Merchandising companies normally hold only one type of inventory: merchandise inventory.
30. Manufacturing sector firms normally hold three types of inventory: direct materials inventory, work-in-process inventory, and finished goods inventory.

Answer: True Difficulty: $2 \quad$ Objective: 6
Terms to Learn: merchandising-sector companies
31. Inventoriable costs are reported as an asset when incurred and expensed on the income statement when the product is sold.

Answer: True Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs
32. Cost of goods sold refers to the products brought to completion, whether they were started before or during the current accounting period.

Answer: False Difficulty: $1 \quad$ Objective: 7
Terms to Learn: finished-goods inventory, cost of goods manufactured
Cost of goods manufactured refers to the products brought to completion, whether they were started before or during the current accounting period.
33. Operating income is sales revenue minus cost of goods manufactured.

Answer: False Difficulty: $1 \quad$ Objective: 7
Terms to Learn: operating income
Operating income $=$ sales revenue - cost of goods sold - operating expenses
34. All manufacturing costs are inventoriable costs.

Answer: True Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs
35. All costs reported on the income statement of a service-sector company are period costs.

Answer: True Difficulty: $1 \quad$ Objective: 7
Terms to Learn: period costs
36. Period costs are never included as part of inventory.

Answer: True Difficulty: $1 \quad$ Objective: 7
Terms to Learn: period costs
37. Conversion costs include all direct manufacturing costs.

Answer: False Difficulty: $1 \quad$ Objective: 7
Terms to Learn: conversion costs
Prime costs include all direct manufacturing costs.
38. Inventory of a manufacturing firm includes goods partially worked on but not yet fully completed.

Answer: True Difficulty: $1 \quad$ Objective: 7
Terms to Learn: work-in-process inventory
39. The wages of a plant supervisor would be classified as a period cost.

Answer: False Difficulty: $2 \quad$ Objective: 7
Terms to Learn: period costs
The wages of a plant supervisor would be classified as a product cost.
40. For external reporting, GAAP requires that costs be classified as either variable or fixed.

Answer: False Difficulty: $2 \quad$ Objective: 7
Terms to Learn: fixed cost, variable cost
For external reporting, GAAP requires that costs be classified as either product or period costs.
41. Depreciation can be classified as either an inventoriable cost or a period cost, depending on what is being depreciated.

Answer: True Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable cost, period cost
42. Insurance on a factory can be classified as a period cost.

Answer: False Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable cost, period cost
Insurance on a factory is classified as a product cost.
43. Overtime premium consists of the wages paid to all workers (for both direct labor and indirect labor) in excess of their straight-time wage rates.

Answer: True Difficulty: $1 \quad$ Objective: 8
Terms to Learn: overtime premium
44. A product cost that is useful for one decision may not be useful information for another decision.

Answer: True Difficulty: $2 \quad$ Objective: 8
Terms to Learn: product cost
45. For external reporting purposes, indirect manufacturing costs must be allocated to individual units.

Answer: True Difficulty: $2 \quad$ Objective: 8
Terms to Learn: indirect manufacturing costs, cost allocation
46. Overtime premium is normally considered as a component of direct labor.

Answer: False Difficulty: $2 \quad$ Objective: 8
Terms to Learn: direct manufacturing labor costs, overtime premium
Overtime premium is normally considered as part of indirect labor since it is usually not associated with a particular job.
47. If a worker is paid for 8 hours, but is idle for 1 of those 8 hours, the 1 hour of idle time would be considered a component of direct labor.

Answer: False Difficulty: $2 \quad$ Objective: 8
Terms to Learn: direct manufacturing labor costs, overtime premium Idle time is normally considered a component of indirect labor since it is usually not associated with a particular job.
48. The role of the cost accountant is to tailor the cost calculation to fit the current decision situation.

Answer: True Difficulty: $1 \quad$ Objective: 9
Terms to Learn: cost
49. Cost accounting and cost management include calculating various costs, obtaining financial and nonfinancial information, and analyzing relevant information for decision making.

Answer: True Difficulty: $1 \quad$ Objective: 9
Terms to Learn: cost, variable cost
50. A costing system traces direct costs and allocates indirect costs to products.

Answer: True Difficulty: $2 \quad$ Objective: 9
Terms to Learn: cost tracing, cost allocation
51. Management accountants help managers identify which information is relevant to a particular decision.

Answer: True Difficulty: $1 \quad$ Objective: 9
Terms to Learn: cost

## MULTIPLE CHOICE

52. Cost objects include:
a. products
b. customers
c. departments
d. All of these answers are correct.

Answer: d Difficulty: $2 \quad$ Objective: 1
Terms to Learn: cost object
53. Actual costs are:
a. the costs incurred
b. budgeted costs
c. estimated costs
d. forecasted costs

Answer: a Difficulty: $1 \quad$ Objective: 1
Terms to Learn: actual cost
54. The general term used to identify both the tracing and the allocation of accumulated costs to a cost object is:
a. cost accumulation
b. cost assignment
c. cost tracing
d. conversion costing

Answer: b Difficulty: $1 \quad$ Objective: 1
Terms to Learn: cost assignment
55. The collection of accounting data in some organized way is:
a. cost accumulation
b. cost assignment
c. cost tracing
d. conversion costing

Answer: a Difficulty: $1 \quad$ Objective: 1
Terms to Learn: cost accumulation
56. Budgeted costs are:
a. the costs incurred this year
b. the costs incurred last year
c. planned or forecasted costs
d. competitor's costs
Answer: c
Difficulty: 2
Objective: 1

Terms to Learn: budgeted costs
57. Cost assignment is:
a. always arbitrary
b. includes tracing and allocating
c. the same as cost accumulation
d. finding the difference between budgeted and actual costs

Answer: b Difficulty: $2 \quad$ Objective: 1
Terms to Learn: cost assignment
58. Which of the following does NOT affect the direct/indirect classification of a cost?
a. the level of budgeted profit for the next year
b. the materiality of the cost in question
c. available technology to gather information about the cost
d. the design of the operation
Answer: a Difficulty: 2 Objective:

Terms to Learn: direct costs of a cost object, indirect costs of a cost object
59. Which of the following statements about the direct/indirect cost classification is NOT true?
a. Direct costs are always traced.
b. Direct costs are always allocated.
c. The design of operations affects the direct/indirect classification.
d. The direct/indirect classification depends on the choice of cost object.
Answer:
b
Difficulty: 2
Objective: 2

Terms to Learn: direct costs of a cost object, indirect costs of a cost object
60. Cost tracing is:
a. the assignment of direct costs to the chosen cost object
b. a function of cost allocation
c. the process of tracking both direct and indirect costs associated with a cost object
d. the process of determining the actual cost of the cost object

Answer: a Difficulty: 2
Objective: 2
Terms to Learn: cost tracing
61. Cost allocation is:
a. the process of tracking both direct and indirect costs associated with a cost object
b. the process of determining the actual cost of the cost object
c. the assignment of indirect costs to the chosen cost object
d. a function of cost tracing

Answer: c Difficulty: $2 \quad$ Objective: 2
Terms to Learn: cost allocation
62. The determination of a cost as either direct or indirect depends upon the:
a. accounting system
b. allocation system
c. cost tracing system
d. cost object chosen

Answer: d Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object, indirect costs of a cost object
63. Classifying a cost as either direct or indirect depends upon:
a. the behavior of the cost in response to volume changes
b. whether the cost is expensed in the period in which it is incurred
c. whether the cost can be easily identified with the cost object
d. whether an expenditure is avoidable or not in the future

Answer: c Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object, indirect costs of a cost object
64. A manufacturing plant produces two product lines: football equipment and hockey equipment. Direct costs for the football equipment line are the:
a. beverages provided daily in the plant break room
b. monthly lease payments for a specialized piece of equipment needed to manufacture the football helmet
c. salaries of the clerical staff that work in the company administrative offices d. utilities paid for the manufacturing plant

Answer: b Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object
65. A manufacturing plant produces two product lines: football equipment and hockey equipment. An indirect cost for the hockey equipment line is the:
a. material used to make the hockey sticks
b. labor to bind the shaft to the blade of the hockey stick
c. shift supervisor for the hockey line
d. plant supervisor

## Answer: d Difficulty: 2 <br> Objective: 2

Terms to Learn: indirect costs of a cost object
66. Which one of the following items is a direct cost?
a. Customer-service costs of a multiproduct firm; Product A is the cost object.
b. Printing costs incurred for payroll check processing; payroll check processing is the cost object.
c. The salary of a maintenance supervisor in a multiproduct manufacturing plant; Product B is the cost object.
d. Utility costs of the administrative offices; the accounting department is the cost object.

Answer: b Difficulty: $2 \quad$ Objective: 2
Terms to Learn: direct costs of a cost object
67. Indirect manufacturing costs:
a. can be traced to the product that created the costs
b. can be easily identified with the cost object
c. generally include the cost of material and the cost of labor
d. may include both variable and fixed costs
Answer: d Difficulty: 2
Objective: 2

Terms to Learn: indirect manufacturing costs
68. All of the following are true EXCEPT that indirect costs:
a. may be included in prime costs
b. are not easily traced to products or services
c. vary with the selection of the cost object
d. may be included in manufacturing overhead

Answer: a Difficulty: $2 \quad$ Objective: 2
Terms to Learn: indirect manufacturing costs
69. Which statement is TRUE?
a. All variable costs are direct costs.
b. Because of a cost-benefit tradeoff, some direct costs may be treated as indirect costs.
c. All fixed costs are indirect costs.
d. All direct costs are variable costs.

## Answer: b Difficulty: $3 \quad$ Objective: 3

Terms to Learn: variable costs, fixed costs, indirect costs of a cost object
70. Cost behavior refers to:
a. how costs react to a change in the level of activity
b. whether a cost is incurred in a manufacturing, merchandising, or service company
c. classifying costs as either inventoriable or period costs
d. whether a particular expense has been ethically incurred

Answer: a Difficulty: $2 \quad$ Objective: 3
Terms to Learn: fixed cost, variable cost
71. An understanding of the underlying behavior of costs helps in all of the following EXCEPT:
a. costs can be better estimated as volume expands and contracts
b. true costs can be better evaluated
c. process inefficiencies can be better identified and as a result improved
d. sales volume can be better estimated

Answer: d Difficulty: $2 \quad$ Objective: 3
Terms to Learn: fixed cost, variable cost
72. At a plant where a union agreement sets annual salaries and conditions, annual labor costs usually:
a. are considered a variable cost
b. are considered a fixed cost
c. depend on the scheduling of floor workers
d. depend on the scheduling of production runs

Answer: b Difficulty: $2 \quad$ Objective: 3
Terms to Learn: fixed cost
73. Variable costs:
a. are always indirect costs
b. increase in total when the actual level of activity increases
c. include most personnel costs and depreciation on machinery
d. can always be traced directly to the cost object

Answer: b Difficulty: $2 \quad$ Objective: 3
Terms to Learn: variable cost
74. Fixed costs:
a. may include either direct or indirect costs
b. vary with production or sales volumes
c. include parts and materials used to manufacture a product
d. can be adjusted in the short run to meet actual demands

Answer: a Difficulty: $2 \quad$ Objective: 3
Terms to Learn: fixed cost
75. Fixed costs depend on the:
a. amount of resources used
b. amount of resources acquired
c. volume of production
d. volume of sales
Answer: b Difficulty: $3 \quad$ Objective: 3

Terms to Learn: fixed cost
76. Which one of the following is a variable cost for an insurance company?
a. rent
b. president's salary
c. sales commissions
d. property taxes
Answer: c Difficulty: $1 \quad$ Objective: 3

Terms to Learn: variable cost
77. Which of the following is a fixed cost for an automobile manufacturing plant?
a. administrative salaries
b. electricity used by assembly-line machines
c. sales commissions
d. windows for each car produced
Answer: a Difficulty: $2 \quad$ Objective: 3

Terms to Learn: fixed cost
78. If each furnace requires a hose that costs $\$ 20$ and 2,000 furnaces are produced for the month, the total cost for hoses is:
a. considered to be a direct fixed cost
b. considered to be a direct variable cost
c. considered to be an indirect fixed cost
d. considered to be an indirect variable cost

| Answer: | b | Difficulty: | 3 | Objective: | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Terms to Learn: | direct costs of a cost object, variable cost |  |  |  |  |

Terms to Learn: direct costs of a cost object, variable cost
79. The MOST likely cost driver of distribution costs is the:
a. number of parts within the product
b. number of miles driven
c. number of products manufactured
d. number of production hours

| Answer: | b | Difficulty: | 2 | Objective: |
| :--- | :--- | :--- | :--- | :--- |
| Terms to Learn: | 3 |  |  |  |

80. The MOST likely cost driver of direct material costs is the:
a. number of parts within the product
b. number of miles driven
c. number of products manufactured
d. number of production hours

Answer: c Difficulty: $2 \quad$ Objective: 3
Terms to Learn: cost driver
81. Which of the following statements is FALSE?
a. There is a cause-and-effect relationship between the cost driver and the level of activity.
b. Fixed costs have cost drivers over the short run.
c. Over the long run all costs have cost drivers.
d. Volume of production is a cost driver of direct manufacturing costs.
Answer:
b
Difficulty: 2
Objective: 3

Terms to Learn: cost driver
82. A band of normal activity or volume in which specific cost-volume relationships are maintained is referred to as the:
a. average range
b. cost-allocation range
c. cost driver range
d. relevant range

Answer: d Difficulty: $1 \quad$ Objective: 3
Terms to Learn: relevant range
83. Within the relevant range, if there is a change in the level of the cost driver, then
a. total fixed costs and total variable costs will change
b. total fixed costs and total variable costs will remain the same
c. total fixed costs will remain the same and total variable costs will change
d. total fixed costs will change and total variable costs will remain the same
Answer:
c
Difficulty: 2
Objective: 3

Terms to Learn: fixed cost, variable cost
84. Within the relevant range, if there is a change in the level of the cost driver, then
a. fixed and variable costs per unit will change
b. fixed and variable costs per unit will remain the same
c. fixed costs per unit will remain the same and variable costs per unit will change
d. fixed costs per unit will change and variable costs per unit will remain the same

Answer: d Difficulty: $2 \quad$ Objective: 3
Terms to Learn: relevant range
85. Which of the following would be LEAST likely to be a cost driver for a company's accounting costs?
a. the number of employees in the accounting department
b. the number of invoices processed
c. the number of units sold
d. the square footage of the office space used by the accounting department

Answer: c Difficulty: $2 \quad$ Objective: 3
Terms to Learn: cost driver
86. When 10,000 units are produced, fixed costs are $\$ 14$ per unit. Therefore, when 20,000 units are produced fixed costs will:
a. increase to $\$ 28$ per unit
b. remain at $\$ 14$ per unit
c. decrease to $\$ 7$ per unit
d. total $\$ 280,000$

Answer: c Difficulty: $3 \quad$ Objective: 4
Terms to Learn: fixed cost
87. When 10,000 units are produced, variable costs are $\$ 6$ per unit. Therefore, when 20,000 units are produced:
a. variable costs will total $\$ 120,000$
b. variable costs will total $\$ 60,000$
c. variable unit costs will increase to $\$ 12$ per unit
d. variable unit costs will decrease to $\$ 3$ per unit

Answer: a Difficulty: $3 \quad$ Objective: 4
Terms to Learn: variable cost
88. Christi Manufacturing provided the following information for last month:

| Sales | $\$ 10,000$ |
| :--- | ---: |
| Variable costs | 3,000 |
| Fixed costs | $\underline{5,000}$ |
| Operating income | $\underline{\$ 2,000}$ |

If sales double next month, what is the projected operating income?
a. $\$ 4,000$
b. $\$ 7,000$
c. $\$ 9,000$
d. $\$ 12,000$

Answer: c Difficulty: $3 \quad$ Objective: 4
$(\$ 10,000 \times 2)-(\$ 3,000 \times 2)-\$ 5,000=\$ 9,000$
Terms to Learn: fixed cost, variable cost
89. Kym Manufacturing provided the following information for last month:

Sales
\$12,000
Variable costs $\quad 4,000$
Fixed costs
1,000
Operating income
\$7,000

If sales double next month, what is the projected operating income?
a. $\$ 14,000$
b. $\$ 15,000$
c. $\$ 18,000$
d. $\$ 19,000$
Answer: b Difficulty: $3 \quad$ Objective: 4
$(\$ 12,000 \times 2)-(\$ 4,000 \times 2)-\$ 1,000=\$ 15,000$
Terms to Learn: fixed cost, variable cost
90. Wheel and Tire Manufacturing currently produces 1,000 tires per month. The following per unit data apply for sales to regular customers:

| Direct materials | $\$ 20$ |
| :--- | ---: |
| Direct manufacturing labor | 3 |
| Variable manufacturing overhead | 6 |
| Fixed manufacturing overhead | $\underline{10}$ |
| $\quad \underline{\text { Total manufacturing costs }}$ |  |

The plant has capacity for 3,000 tires and is considering expanding production to 2,000 tires. What is the total cost of producing 2,000 tires?
a. $\$ 39,000$
b. $\$ 78,000$
c. $\$ 68,000$
d. $\$ 62,000$

Answer: c Difficulty: $2 \quad$ Objective: 4
$[(\$ 20+\$ 3+\$ 6) \times 2,000$ units $]+(\$ 10 \times 1,000$ units $)=\$ 68,000$
Terms to Learn: fixed cost, variable cost
91. XIAN Manufacturing produces a unique valve, and has the capacity to produce 50,000 valves annually. Currently XIAN produces 40,000 valves and is thinking about increasing production to 45,000 valves next year. What is the most likely behavior of total manufacturing costs and unit manufacturing costs given this change?
a. Total manufacturing costs will increase and unit manufacturing costs will stay the same.
b. Total manufacturing costs will increase and unit manufacturing costs will decrease.
c. Total manufacturing costs will stay the same and unit manufacturing costs will stay the same.
d. Total manufacturing costs will stay the same and unit manufacturing costs will decrease.

Answer: b Difficulty: $3 \quad$ Objective: 4
Terms to Learn: fixed cost, variable cost
92. Tire and Spoke Manufacturing currently produces 1,000 bicycles per month. The following per unit data apply for sales to regular customers:

| Direct materials | $\$ 50$ |
| :--- | ---: |
| Direct manufacturing labor | 5 |
| Variable manufacturing overhead | 14 |
| Fixed manufacturing overhead | $\underline{\underline{10}}$ |
| $\quad \underline{\text { Total manufacturing costs }}$ | $\underline{y}$ |

The plant has capacity for 3,000 bicycles and is considering expanding production to 2,000 bicycles. What is the per unit cost of producing 2,000 bicycles?
a. $\quad \$ 79$ per unit
b. $\quad \$ 158$ per unit
c. $\quad \$ 74$ per unit
d. $\$ 134$ per unit

Answer: c Difficulty: $3 \quad$ Objective: 4
$[(\$ 50+\$ 5+\$ 14) \times 2,000$ units $]+(\$ 10 \times 1,000$ units $)=\$ 148,000 / 2,000$ units $=$ \$74
Terms to Learn: unit cost

## THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 93 AND 94:

Axle and Wheel Manufacturing currently produces 1,000 axles per month. The following per unit data apply for sales to regular customers:
Direct materials ..... \$30
Direct manufacturing labor ..... 5
Variable manufacturing overhead ..... 10
Fixed manufacturing overhead ..... $\underline{40}$
Total manufacturing costs ..... \$85

93 The plant has capacity for 2,000 axles and is considering expanding production to 1,500 axles. What is the total cost of producing 1,500 axles?
a. $\quad \$ 85,000$
b. $\$ 170,000$
c. $\$ 107,500$
d. $\$ 102,500$

Answer: c Difficulty: $2 \quad$ Objective: 4
$[(\$ 30+\$ 5+\$ 10) \times 1,500$ units $]+(\$ 40 \times 1,000$ units $)=\$ 107,500$
Terms to Learn: fixed cost, variable cost
94. What is the per unit cost when producing 1,500 axles?
a. $\quad \$ 71.67$
b. $\$ 107.50$
c. $\quad \$ 85.00$
d. $\$ 170.00$

Answer: a Difficulty: 2
Objective: 4
$\$ 107,500 / 1,500=\$ 71.67$
Terms to Learn: unit cost

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 95 THROUGH 97:
Pederson Company reported the following:

| Manufacturing costs | $\$ 2,000,000$ |
| :--- | :--- |
| Units manufactured | 50,000 |
| Units sold | 47,000 units sold for $\$ 75$ per unit |
| Beginning inventory | 0 units |

95. What is the average manufacturing cost per unit?
a. $\quad \$ 40.00$
b. $\$ 42.55$
c. $\$ 0.025$
d. $\quad \$ 75.00$

Answer: a Difficulty: $1 \quad$ Objective: 4
$\$ 2,000,000 / 50,000=\$ 40.00$
Terms to Learn: average cost, unit cost
96. What is the amount of ending finished goods inventory?
a. $\$ 1,880,000$
b. $\$ 120,000$
c. $\$ 225,000$
d. $\$ 105,000$

Answer: b Difficulty: $2 \quad$ Objective: 4
$(50,000-47,000) \mathrm{x}(\$ 2,000,000 / \$ 50,000)=\$ 120,000$
Terms to Learn: finished-goods inventory
97. What is the amount of gross margin?
a. \$1,750,000
b. $\$ 3,525,000$
c. $\$ 5,405,000$
d. $\$ 1,645,000$

Answer: d Difficulty: $3 \quad$ Objective: 7
$47,000 \times(\$ 75-(\$ 2,000,000 / \$ 50,000))=\$ 1,645,000$
Terms to Learn: manufacturing-sector companies
THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 98 THROUGH 100:
The following information pertains to Alleigh's Mannequins:

Manufacturing costs
Units manufactured
Units sold
Beginning inventory
\$1,500,000 30,000
29,500 units sold for $\$ 85$ per unit 0 units
98. What is the average manufacturing cost per unit?
a. $\quad \$ 50.00$
b. $\$ 50.85$
c. $\quad \$ 17.65$
d. $\quad \$ 85.00$
Answer: a Difficulty: $1 \quad$ Objective: 4
$\$ 1,500,000 / 30,000=\$ 50.00$
Terms to Learn: unit cost
99. What is the amount of ending finished goods inventory?
a. $\$ 42,500$
b. $\$ 25,424$
c. $\$ 25,000$
d. $\$ 1,475,000$

Answer: c Difficulty: $2 \quad$ Objective: 4
$(30,000-29,500) \times(\$ 1,500,000 / \$ 30,000)=\$ 25,000$
Terms to Learn: finished-goods inventory
100. What is the amount of gross margin?
a. $\$ 1,475,000$
b. $\$ 1,500,000$
c. $\$ 2,507,500$
d. $\$ 1,032,500$

Answer: d Difficulty: $3 \quad$ Objective: 7
29,500 x (\$85-(\$1,500,000 / \$30,000)) = \$1,032,500
Terms to Learn: manufacturing-sector company
101. Which of the following companies is part of the service sector of our economy?
a. Wal-Mart
b. Bank of America
c. General Motors
d. Amazon.com

Answer: b Difficulty: $1 \quad$ Objective: 5
Terms to Learn: service-sector companies
102. Which of the following companies is part of the merchandising sector of our economy?
a. General Motors
b. Intel
c. The GAP
d. Robert Meyer Accounting Firm

Answer: c Difficulty: $1 \quad$ Objective: 5
Terms to Learn: merchandising-sector companies
103. Which of the following companies is part of the manufacturing sector of our economy?
a. Nike
b. Barnes \& Noble
c. Corvette Law Firm
d. Sears, Roebuck, and Company

Answer: a Difficulty: $1 \quad$ Objective: 5
Terms to Learn: manufacturing-sector companies
104. Google, an internet search firm, would be classified as:
a. a manufacturing-sector company
b. a merchandising-sector company
c. a service sector company
d. None of these answers are correct.

Answer: c Difficulty: $2 \quad$ Objective: 5
Terms to Learn: service-sector companies
105. Service-sector companies report:
a. only merchandise inventory
b. only finished goods inventory
c. direct materials inventory, work-in-process inventory, and finished goods inventory accounts
d. no inventory accounts

Answer: d Difficulty: $1 \quad$ Objective: 6
Terms to Learn: service-sector companies
106. Manufacturing-sector companies report:
a. only merchandise inventory
b. only finished goods inventory
c. direct materials inventory, work-in-process inventory, and finished goods inventory accounts
d. no inventory accounts

Answer: c Difficulty: $1 \quad$ Objective: 6
Terms to Learn: manufacturing-sector companies
107. For a manufacturing company, direct material costs may be included in:
a. direct materials inventory only
b. merchandise inventory only
c. both work-in-process inventory and finished goods inventory
d. direct materials inventory, work-in-process inventory, and finished goods inventory accounts

Answer: d Difficulty: $3 \quad$ Objective: 6
Terms to Learn: manufacturing-sector companies, direct material costs
108. For a manufacturing company, direct labor costs may be included in:
a. direct materials inventory only
b. merchandise inventory only
c. both work-in-process inventory and finished goods inventory
d. direct materials inventory, work-in-process inventory, and finished goods inventory accounts

Answer: c Difficulty: $3 \quad$ Objective: 6
Terms to Learn: manufacturing sector companies, direct manufacturing labor costs
109. For a manufacturing company, indirect manufacturing costs may be included in:
a. direct materials inventory only
b. merchandise inventory only
c. both work-in-process inventory and finished goods inventory
d. direct materials inventory, work-in-process inventory, and finished goods inventory accounts

Answer: c Difficulty: 3
Objective: 6
Terms to Learn: indirect manufacturing costs
110. For a manufacturing-sector company, the cost of factory insurance is classified as a:
a. direct material cost
b. direct manufacturing labor cost
c. manufacturing overhead cost
d. period cost
Answer: c Difficulty: 1
Objective: 6

Terms to Learn: period costs
111. For a printing company, the cost of paper is classified as a:
a. direct material cost
b. direct manufacturing labor cost
c. manufacturing overhead cost
d. period cost

Answer: a Difficulty: $1 \quad$ Objective: 6
Terms to Learn: direct material costs
112. Wages paid to machine operators on an assembly line are classified as a:
a. direct material cost
b. direct manufacturing labor cost
c. manufacturing overhead cost
d. period cost
Answer: b Difficulty: 1
Objective: 6

Terms to Learn: direct manufacturing labor costs
113. Manufacturing overhead costs in an automobile manufacturing plant MOST likely include:
a. labor costs of the painting department
b. indirect material costs such as lubricants
c. sales commissions
d. steering wheel costs
Answer:
b
Difficulty: 1
Objective: 6

Terms to Learn: manufacturing overhead costs
114. Manufacturing overhead costs are also referred to as:
a. indirect manufacturing costs
b. prime costs
c. period costs
d. direct material

Answer: a Difficulty: $1 \quad$ Objective: 6
Terms to Learn: manufacturing overhead costs
115. Merchandising companies normally report:
a. only merchandise inventory
b. only finished goods inventory
c. direct materials inventory, work-in-process inventory, and finished goods inventory accounts
d. no inventory accounts

Answer: a Difficulty: $1 \quad$ Objective: 6
Terms to Learn: merchandising-sector companies
116. Direct materials inventory would normally include:
a. direct materials in stock and awaiting use in the manufacturing process
b. goods partially worked on but not yet fully completed
c. goods fully completed but not yet sold
d. products in their original form intended to be sold without changing their basic form
Answer: a Difficulty: $1 \quad$ Objective: 6

Terms to Learn: direct materials inventory
117. Work-in-process inventory would normally include:
a. direct materials in stock and awaiting use in the manufacturing process
b. goods partially worked on but not yet fully completed
c. goods fully completed but not yet sold
d. products in their original form intended to be sold without changing their basic form

Answer: b Difficulty: $1 \quad$ Objective: 6
Terms to Learn: work-in-process inventory
118. Finished goods inventory would normally include:
a. direct materials in stock and awaiting use in the manufacturing process
b. goods partially worked on but not yet fully completed
c. goods fully completed but not yet sold
d. products in their original form intended to be sold without changing their basic form

Answer: c Difficulty: $1 \quad$ Objective: 6
Terms to Learn: finished-goods inventory
119. Merchandise inventory would normally include:
a. direct materials in stock and awaiting use in the manufacturing process
b. goods partially worked on but not yet fully completed
c. goods fully completed but not yet sold
d. products in their original form intended to be sold without changing their basic form

Answer: d Difficulty: $1 \quad$ Objective: 6
Terms to Learn: merchandising-sector companies
120. The income statement of a manufacturing firm reports:
a. period costs only
b. inventoriable costs only
c. both period and inventoriable costs
d. period and inventoriable costs but at different times; the reporting varies
Answer: c Difficulty: 2
Objective: 7

Terms to Learn: period costs, inventoriable costs
121. The income statement of a service-sector firm reports:
a. period costs only
b. inventoriable costs only
c. both period and inventoriable costs
d. period and inventoriable costs but at different times; the reporting varies
Answer: a Difficulty: 2
Objective: 7

Terms to Learn: service-sector companies, period costs
122. Manufacturing costs include all of the following EXCEPT:
a. costs incurred inside the factory
b. both direct and indirect costs
c. both variable and fixed costs
d. both inventoriable and period costs

Answer: d Difficulty: $2 \quad$ Objective: 7
Terms to Learn: manufacturing-sector companies
123. Inventoriable costs:
a. include administrative and marketing costs
b. are expensed in the accounting period in which the products are sold
c. are particularly useful in management accounting
d. are also referred to as nonmanufacturing costs

Answer: b Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs
124. Inventoriable costs are expensed on the income statement:
a. when direct materials for the product are purchased
b. after the products are manufactured
c. when the products are sold
d. not at any particular time, it varies

Answer: c Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs
125. Costs that are initially recorded as assets and expensed when sold are called:
a. period costs
b. inventoriable costs
c. variable costs
d. fixed costs

Answer: b Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs
126. For merchandising companies, inventoriable costs include:
a. the cost of the goods themselves
b. incoming freight costs
c. insurance costs for the goods
d. All of these answers are correct.
Answer:
d
Difficulty: 2
Objective: 7

Terms to Learn: inventoriable costs, merchandising-sector companies
127. For manufacturing firms, inventoriable costs include:
a. plant supervisor salaries
b. research and development costs
c. costs of dealing with customers after the sale
d. distribution costs

Answer: a Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs, manufacturing-sector companies
128. A plant manufactures several different products. The wages of the plant supervisor can be classified as a(n):
a. direct cost
b. inventoriable cost
c. variable cost
d. period cost

Answer: b Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable cost
129. The cost of inventory reported on the balance sheet may include all of the following EXCEPT:
a. customer-service costs
b. wages of the plant supervisor
c. depreciation of the factory equipment
d. the cost of parts used in the manufacturing process

Answer: a Difficulty: $2 \quad$ Objective: 7
Terms to Learn: inventoriable costs, period costs
130. For a computer manufacturer, period costs include the cost of:
a. the keyboard
b. labor used for assembly and packaging
c. distribution
d. assembly-line equipment

Answer: c Difficulty: $1 \quad$ Objective: 7
Terms to Learn: period costs, manufacturing-sector company
131. Period costs:
a. include only fixed costs
b. seldom influence financial success or failure
c. include the cost of selling, delivering, and after-sales support for customers
d. should be treated as an indirect cost rather than as a direct manufacturing cost
Answer: c
Difficulty: 2
Objective: 7

Terms to Learn: period costs
132. Period costs:
a. are treated as expenses in the period they are incurred
b. are directly traceable to products
c. include direct labor
d. are also referred to as manufacturing overhead costs

Answer: a Difficulty: $2 \quad$ Objective: 7
Terms to Learn: period costs
133. Which of the following is NOT a period cost?
a. marketing costs
b. general and administrative costs
c. research and development costs
d. manufacturing costs

Answer: d Difficulty: $1 \quad$ Objective: 7
Terms to Learn: period costs
134. Costs expensed on the income statement in the accounting period incurred are called:
a. direct costs
b. indirect costs
c. period costs
d. inventoriable costs

Answer: c Difficulty: $1 \quad$ Objective: 7
Terms to Learn: period costs
135. Prime costs include:
a. direct materials and direct manufacturing labor costs
b. direct manufacturing labor and manufacturing overhead costs
c. direct materials and manufacturing overhead costs
d. only direct materials

Answer: a Difficulty: $1 \quad$ Objective: 7
Terms to Learn: prime costs
136. Conversion costs include:
a. direct materials and direct manufacturing labor costs
b. direct manufacturing labor and manufacturing overhead costs
c. direct materials and manufacturing overhead costs
d. only direct materials

Answer: b Difficulty: $1 \quad$ Objective: 7
Terms to Learn: conversion costs
137. Total manufacturing costs equal:
a. direct materials + prime costs
b. direct materials + conversion costs
c. direct manufacturing labor costs + prime costs
d. direct manufacturing labor costs + conversion costs

Answer: b Difficulty: $2 \quad$ Objective: 7
Terms to Learn: prime costs, conversion costs
138. In the cost classification system used by manufacturing firms, total manufacturing costs would include all of the following EXCEPT:
a. direct materials costs and conversion costs
b. direct materials costs, direct manufacturing labor costs, and manufacturing overhead costs
c. indirect materials costs, indirect manufacturing labor costs, and manufacturing overhead costs
d. prime costs and manufacturing overhead costs
Answer:
c
Difficulty: 2
Objective: 7

Terms to Learn: prime costs, conversion costs
139. Manufacturing overhead costs may include all of the following EXCEPT:
a. salaries of the plant janitorial staff
b. labor that can be traced to individual products
c. wages paid for unproductive time due to machine breakdowns
d. overtime premiums paid to plant workers
Answer: b Difficulty: 3
Objective: 7

Terms to Learn: manufacturing overhead costs
140. Which of the following formulas determine cost of goods sold in a merchandising entity?
a. Beginning inventory + Purchases + Ending inventory $=$ Cost of goods sold
b. Beginning inventory + Purchases - Ending inventory $=$ Costs of goods sold
c. Beginning inventory - Purchases + Ending inventory $=$ Cost of goods sold
d. Beginning inventory - Ending inventory - Purchases $=$ Cost of goods sold

Answer: b Difficulty: $1 \quad$ Objective: 7
Terms to Learn: merchandising-sector companies
141. Which of the following formulas determine cost of goods sold in a manufacturing entity?
a. Beginning work-in-process inventory + Cost of goods manufactured - Ending work-in-process inventory $=$ Cost of goods sold
b. Beginning work-in-process inventory + Cost of goods manufactured + Ending work-in-process inventory $=$ Cost of goods sold
c. Cost of goods manufactured - Beginning finished goods inventory - Ending finished goods inventory $=$ Cost of goods sold
d. Cost of goods manufactured + Beginning finished goods inventory - Ending finished goods inventory $=$ Cost of goods sold

Answer:
d
Difficulty: 2
Objective: 7
Terms to Learn: manufacturing-sector companies
142. The following information pertains to the Cannady Corporation:

| Beginning work-in-process inventory | $\$ 50,000$ |
| :--- | ---: | ---: |
| Ending work-in-process inventory | 48,000 |
| Beginning finished goods inventory | 180,000 |
| Ending finished goods inventory | 195,000 |
| Cost of goods manufactured | $1,220,000$ |

What is cost of goods sold?
a. $\$ 1,235,000$
b. $\$ 1,205,000$
c. $\$ 1,218,000$
d. $\$ 1,222,000$

Answer: b Difficulty: 3
$\$ 180,000+\$ 1,220,000-\$ 195,000=\$ 1,205,000$
Terms to Learn: cost of goods manufactured
143. The following information pertains to the Duggan Corporation:

| Beginning work-in-process inventory | $\$ 20,000$ |
| :--- | ---: |
| Ending work-in-process inventory | 23,000 |
| Beginning finished goods inventory | 36,000 |
| Ending finished goods inventory | 34,000 |
| Cost of goods manufactured | 246,000 |

What is cost of goods sold?
a. $\$ 244,000$
b. $\$ 248,000$
c. $\$ 243,000$
d. $\$ 249,000$

Answer: b Difficulty: 2
$\$ 36,000+\$ 246,000-\$ 34,000=\$ 248,000$
Terms to Learn: cost of goods manufactured

## THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 144 THROUGH 146:

Beginning finished goods, 1/1/20X3
Ending finished goods, 12/31/20X3
Cost of goods sold
Sales revenue
Operating expenses
\$ 80,000
67,000
270,000
500,000
145,000
144. What is cost of goods manufactured for 20X3?
a. $\$ 230,000$
b. $\$ 257,000$
c. $\$ 283,000$
d. $\$ 355,000$

Answer: b Difficulty: 2
Objective: 7
$\$ 270,000+\$ 67,000-\$ 80,000=\$ 257,000$
Terms to Learn: cost of goods manufactured
145. What is gross margin for 20X3?
a. $\$ 283,000$
b. $\$ 355,000$
c. $\$ 230,000$
d. $\$ 257,000$

Answer: c Difficulty: $2 \quad$ Objective: 7
$\$ 500,000-\$ 270,000=\$ 230,000$
Terms to Learn: revenues, period costs
146. What is operating income for 20X3?
a. $\$ 85,000$
b. $\$ 112,000$
c. $\$ 62,000$
d. $\$ 230,000$

Answer: a Difficulty: $2 \quad$ Objective: 7
$\$ 500,000-\$ 270,000-\$ 145,000=\$ 85,000$
Terms to Learn: revenues, period costs
THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 147 THROUGH 149:
Beginning finished goods, 1/1/20X5
\$ 40,000
33,000
Ending finished goods, 12/31/20X5
250,000
Sales revenue 600,000
Operating expenses 120,000
147. What is cost of goods manufactured for 20X5?
a. $\$ 257,000$
b. $\$ 350,000$
c. $\$ 243,000$
d. $\$ 250,000$

Answer: c Difficulty: 2
Objective: 7
$\$ 250,000+\$ 33,000-\$ 40,000=\$ 243,000$
Terms to Learn: cost of goods manufactured
148. What is gross margin for 20X5?
a. $\$ 243,000$
b. $\$ 527,000$
c. $\$ 357,000$
d. $\$ 350,000$

Answer: d Difficulty: 2
Objective: 7
$\$ 600,000-\$ 250,000=\$ 350,000$
Terms to Learn: revenues
149. What is operating income for 20X5?
a. $\$ 230,000$
b. $\$ 123,000$
c. $\$ 107,000$
d. $\$ 157,000$

Answer: a Difficulty: $2 \quad$ Objective: 7
$\$ 600,000-\$ 250,000-\$ 120,000=\$ 230,000$
Terms to Learn: revenues, period costs
THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 150 THROUGH 153: The Singer Company manufactures several different products. Unit costs associated with Product ICT101 are as follows:
Direct materials
\$ 60
Direct manufacturing labor
10
Variable manufacturing overhead
18
Fixed manufacturing overhead32

Sales commissions (2\% of sales)
4
Administrative salaries 16
Total
150. What are the variable costs per unit associated with Product ICT101?
a. $\quad \$ 18$
b. $\quad \$ 22$
c. $\$ 88$
d. $\$ 92$

Answer: d Difficulty: 2
Objective: 3
$\$ 60+\$ 10+\$ 18+\$ 4=\$ 92$
Terms to Learn: variable cost
151. What are the fixed costs per unit associated with Product ICT101?
a. $\quad \$ 102$
b. $\$ 48$
c. $\quad \$ 52$
d. $\$ 32$

Answer: b Difficulty: $2 \quad$ Objective: 3 $\$ 32+16=\$ 48$
Terms to Learn: fixed cost
152. What are the inventoriable costs per unit associated with Product ICT101?
a. $\quad \$ 120$
b. $\$ 140$
c. $\$ 50$
d. $\$ 88$

Answer: a Difficulty: $2 \quad$ Objective: 7
$\$ 60+\$ 10+\$ 18+\$ 32=\$ 120$
Terms to Learn: inventoriable cost
153. What are the period costs per unit associated with Product ICT101?
a. $\quad \$ 4$
b. $\$ 16$
c. $\$ 20$
d. $\quad \$ 52$

Answer: c Difficulty: $2 \quad$ Objective: 7
$\$ 4+16=\$ 20$
Terms to Learn: period cost

## THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 154 THROUGH 157:

The West Company manufactures several different products. Unit costs associated with Product ORD203 are as follows:

| Direct materials | $\$ 40$ |
| :--- | ---: |
| Direct manufacturing labor | 8 |
| Variable manufacturing overhead | 12 |
| Fixed manufacturing overhead | 23 |
| Sales commissions (2\% of sales) | 6 |
| Administrative salaries | $\underline{9}$ |
| $\quad$ Total | $\underline{\underline{998}}$ |

154. What are the variable costs per unit associated with Product ORD203?
a. $\quad \$ 60$
b. $\$ 83$
c. $\$ 66$
d. $\$ 48$

Answer: c Difficulty: 2
Objective: 3
$\$ 40+\$ 8+\$ 12+\$ 6=\$ 66$
Terms to Learn: variable cost
155. What are the fixed costs per unit associated with Product ORD203?
a. $\$ 23$
b. $\$ 32$
c. $\$ 35$
d. $\$ 44$

Answer: b Difficulty: $2 \quad$ Objective: 3
$\$ 23+9=\$ 32$
Terms to Learn: fixed cost
156. What are the inventoriable costs per unit associated with Product ORD203?
a. $\quad \$ 60$
b. $\$ 66$
c. $\$ 48$
d. $\$ 83$

Answer: d Difficulty: $2 \quad$ Objective: 7
$\$ 40+\$ 8+\$ 12+\$ 23=\$ 83$
Terms to Learn: inventoriable cost
157. What are the period costs per unit associated with Product ORD203?
a. $\quad \$ 15$
b. $\$ 6$
c. $\$ 9$
d. $\quad \$ 27$

Answer: a Difficulty: $2 \quad$ Objective: 7
$\$ 6+9=\$ 15$
Terms to Learn: period cost
158. For last year, Wampum Enterprises reported revenues of $\$ 420,000$, cost of goods sold of $\$ 108,000$, cost of goods manufactured of $\$ 101,000$, and total operating costs of $\$ 70,000$. Operating income for that year was:
a. $\$ 319,000$
b. $\$ 312,000$
c. $\$ 249,000$
d. $\$ 242,000$

Answer: d Difficulty: $2 \quad$ Objective: 7
$\$ 420,000-\$ 108,000-\$ 70,000=\$ 242,000$
Terms to Learn: revenues, cost of goods manufactured, period costs
159. For last year, Wampum Enterprises reported revenues of $\$ 420,000$, cost of goods sold of $\$ 108,000$, cost of goods manufactured of $\$ 101,000$, and total operating costs of $\$ 70,000$. Gross margin for last year was:
a. $\$ 319,000$
b. $\$ 312,000$
c. $\$ 249,000$
d. $\$ 242,000$

Answer: b Difficulty: $2 \quad$ Objective: 7
$\$ 420,000-\$ 108,000=\$ 312,000$
Terms to Learn: revenues, cost of goods manufactured, period costs
160. For last year, Lewisburn Manufacturing reported the following:

| Revenue | $\$ 420,000$ |
| :--- | ---: |
| Beginning inventory of direct materials, January 1 | 22,000 |
| Purchases of direct materials | 146,000 |
| Ending inventory of direct materials, December 31 | 16,000 |
| Direct manufacturing labor | 18,000 |
| Indirect manufacturing costs | 40,000 |
| Beginning inventory of finished goods, January 1 | 35,000 |
| Cost of goods manufactured | 104,000 |
| Ending inventory of finished goods, December 31 | 36,000 |
| Operating costs | 140,000 |
|  |  |

What was Lewisburn's cost of goods sold?
a. $\quad \$ 103,000$
b. $\$ 152,000$
c. $\$ 268,000$
d. $\$ 317,000$

Answer: a Difficulty: 3
$\$ 35,000+\$ 104,000-\$ 36,000=\$ 103,000$
Terms to Learn: Revenues, cost of goods manufactured
161. For last year, Lewisburn Manufacturing reported the following:

| Revenue | $\$ 420,000$ |
| :--- | ---: |
| Beginning inventory of direct materials, January 1 | 22,000 |
| Purchases of direct materials | 146,000 |
| Ending inventory of direct materials, December 31 | 16,000 |
| Direct manufacturing labor | 18,000 |
| Indirect manufacturing costs | 40,000 |
| Beginning inventory of finished goods, January 1 | 35,000 |
| Cost of goods manufactured | 104,000 |
| Ending inventory of finished goods, December 31 | 36,000 |
| Operating costs | 140,000 |
|  |  |

What was Lewisburn's gross margin (or gross profit)?
a. $\$ 103,000$
b. $\$ 152,000$
c. $\$ 268,000$
d. $\$ 317,000$
Answer: $\quad$ d $\quad$ Difficulty: 3
$\$ 420,000-(\$ 35,000+\$ 104,000-\$ 36,000)=\$ 317,000$

Terms to Learn: Revenues, cost of goods manufactured
162. For last year, Lewisburn Manufacturing reported the following:

| Revenue | $\$ 420,000$ |
| :--- | ---: |
| Beginning inventory of direct materials, January 1 | 22,000 |
| Purchases of direct materials | 146,000 |
| Ending inventory of direct materials, December 31 | 16,000 |
| Direct manufacturing labor | 18,000 |
| Indirect manufacturing costs | 40,000 |
| Beginning inventory of finished goods, January 1 | 35,000 |
| Cost of goods manufactured | 104,000 |
| Ending inventory of finished goods, December 31 | 36,000 |
| Operating costs | 140,000 |
|  |  |

What was Lewisburn's operating income?
a. $\$ 76,000$
b. $\$ 128,000$
c. $\$ 177,000$
d. $\$ 280,000$
Answer: c Difficulty: $3 \quad$ Objective: 7
$\$ 420,000-(\$ 35,000+\$ 104,000-\$ 36,000)-\$ 140,000=\$ 177,000$
Terms to Learn: Revenues, cost of goods manufactured
163. For last year, Lewisburn Manufacturing reported the following:

| Revenue | $\$ 420,000$ |
| :--- | ---: |
| Beginning inventory of direct materials, January 1 | 22,000 |
| Purchases of direct materials | 146,000 |
| Ending inventory of direct materials, December 31 | 16,000 |
| Direct manufacturing labor | 18,000 |
| Indirect manufacturing costs | 40,000 |
| Beginning inventory of finished goods, January 1 | 35,000 |
| Cost of goods manufactured | 104,000 |
| Ending inventory of finished goods, December 31 | 36,000 |
| Operating costs | 140,000 |
|  |  |

How much of the above would be considered period costs for Lewisburn Manufacturing?
a. $\$ 104,000$
b. $\$ 140,000$
c. $\$ 246,000$
d. $\$ 390,000$
Answer: b Difficulty: $3 \quad$ Objective: 7 \$140,000
Terms to Learn: period costs
164. Product costs may refer to:
a. inventoriable costs for external reporting
b. design costs plus manufacturing costs for government contracts
c. all costs incurred along the value chain for pricing decisions
d. All of these answers are correct.

Answer: d Difficulty: $3 \quad$ Objective: 8
Terms to Learn: product costs
165. Product costs used for pricing and product-mix decisions generally include:
a. manufacturing costs only
b. design costs plus manufacturing costs
c. all costs incurred along the value chain
d. distribution costs only

Answer: c Difficulty: $3 \quad$ Objective: 8
Terms to Learn: product costs
166. Product costs used for government contracts generally include:
a. manufacturing costs only
b. design costs plus manufacturing costs
c. all costs incurred along the value chain
d. distribution costs only

Answer: b Difficulty: $3 \quad$ Objective: 8
Terms to Learn: product costs
167. Product costs used for external reporting generally include:
a. manufacturing costs only
b. design costs plus manufacturing costs
c. all costs incurred along the value chain
d. All of these answers are correct.

Answer: a Difficulty: $2 \quad$ Objective: 8
Terms to Learn: product costs
168. Inventoriable costs for external reporting purposes are also called:
a. product costs
b. period costs
c. variable costs
d. direct manufacturing costs

Answer: a Difficulty: $1 \quad$ Objective: 8
Terms to Learn: inventoriable costs
169. For external reporting:
a. costs are classified as either inventoriable or period costs
b. costs reflect current values
c. there are no prescribed rules since no one is exactly sure how investors and creditors will use these numbers
d. costs include amounts that reflect both current and future benefits

Answer: a Difficulty: $2 \quad$ Objective: 8
Terms to Learn: inventoriable costs, period costs
170. Which of the following statements is FALSE?
a. Product costs and inventoriable costs are interchangeable terms.
b. Inventoriable costs are important for GAAP.
c. Inventoriable costs are a special case of product costs.
d. "Product costs" refers to the particular costs of a product for the purpose at hand.

Answer: a Difficulty: $3 \quad$ Objective: 8
Terms to Learn: product costs, inventoriable costs
171. Debated items that some companies include as direct manufacturing labor include:
a. fringe benefits
b. vacation pay
c. training time
d. All of these answers are correct.

Answer: d Difficulty: $2 \quad$ Objective: 8
Terms to Learn: direct manufacturing labor costs
172. Brenda Hicks is paid $\$ 10$ an hour for straight-time and $\$ 15$ an hour for overtime.

One week she worked 42 hours, which included 2 hours of overtime. Compensation would be reported as:
a. $\quad \$ 400$ of direct labor and $\$ 30$ of manufacturing overhead
b. $\$ 400$ of direct labor and $\$ 0$ of manufacturing overhead
c. $\$ 420$ of direct labor and $\$ 10$ of manufacturing overhead
d. $\$ 430$ of direct labor and $\$ 0$ of manufacturing overhead

Answer: c Difficulty: $2 \quad$ Objective: 8
Direct labor (42 hours x \$10) + Overtime premium ( 2 hrs x \$5) = \$430
Terms to Learn: overtime premium, direct manufacturing labor costs
173. Rodney Worsham is paid $\$ 10$ an hour for straight-time and $\$ 15$ an hour for overtime. One week he worked 45 hours, which included 5 hours of overtime, and 3 hours of idle time caused by material shortages. Compensation would be reported as:
a. $\quad \$ 370$ of direct labor and $\$ 105$ of manufacturing overhead
b. $\$ 420$ of direct labor and $\$ 55$ of manufacturing overhead
c. $\$ 450$ of direct labor and $\$ 25$ of manufacturing overhead
d. $\$ 445$ of direct labor and $\$ 30$ of manufacturing overhead

Answer: b Difficulty: $3 \quad$ Objective: 8
Direct labor (42 hours x \$10) + Idle time (3 hrs x \$10) + Overtime premium (5 hrs x $\$ 5)=\$ 475$
Terms to Learn: overtime premium, direct manufacturing labor costs, idle time
174. Joseph Davis worked 44 hours last week for Breakgood Manufacturing. Of the 44 hours 4 hours were considered overtime, and also Davis was idle for 5 of the 44 hours due to an equipment malfunction. Davis makes $\$ 20$ per hour and is paid $\$ 30$ an hour (time and a half) for overtime. Davis' total compensation for that week would be $\qquad$ , and assuming Breakgood charges overtime premium and idle time to indirect labor, the amount of this compensation credited to indirect labor would be $\qquad$ .
a. $\quad \$ 840 ; \$ 40$
b. $\$ 840 ; \$ 140$
c. $\$ 920 ; \$ 40$
d. $\$ 920 ; \$ 140$

Answer: d Difficulty: $3 \quad$ Objective: 8
total compensation $(40 \times \$ 20)+(4 \times \$ 30)=\$ 920$;
indirect labor $(5 \times \$ 20)+(4 \times \$ 10)=\$ 140$
Terms to Learn: indirect manufacturing costs, overtime premium, idle time
175. When making decisions:
a. it is best to use average costs
b. it is best to use unit costs
c. it is best to use total costs rather than unit costs
d. All of these types of costs can be used for decision making; it varies depending on the decision required.

Answer: d Difficulty: $2 \quad$ Objective: 9
Terms to Learn: average cost, total cost, unit cost

## EXERCISES AND PROBLEMS

176. Lucas Manufacturing has three cost objects that it uses to accumulate costs for its manufacturing plants. They are:

Cost object \#1: The physical buildings and equipment
Cost object \#2: The use of buildings and equipment
Cost object \#3: The availability and use of manufacturing labor
The following manufacturing overhead cost categories are found in the accounting records:
a. Depreciation on buildings and equipment
b. Lubricants for machines
c. Property insurance
d. Supervisors' salaries
e. Fringe benefits
f. Property taxes
g. Utilities

## Required:

Assign each of the above costs to the most appropriate cost object.

## Answer:

Cost object \# 1 includes categories $\mathrm{a}, \mathrm{c}$, and f .
Cost object \# 2 includes categories b and g .
Cost object \# 3 includes categories d and e.
Difficulty: 2 Objective: 1 Terms to Learn: cost object
177. Archambeau Products Company manufactures office furniture. Recently, the company decided to develop a formal cost accounting system and classify all costs into three categories. Categorize each of the following items as being appropriate for (1) cost tracing to the finished furniture, (2) cost allocation of an indirect manufacturing cost to the finished furniture, or (3) as a nonmanufacturing item.

Item
Carpenter wages
Depreciation - office building
Glue for assembly
Lathe department supervisor
Lathe depreciation
Lathe maintenance
Lathe operator wages
Lumber
Samples for trade shows
Metal brackets for drawers
Factory washroom supplies

## Answer:

## Item

Carpenter wages
Depreciation - office building
Glue for assembly
Lathe department supervisor
Lathe depreciation
Lathe maintenance
Lathe operator wages
Lumber
Samples for trade shows
Metal brackets for drawers
Factory washroom supplies
Difficulty: 2 Objective: 2
Cost

Tracing $\quad \underline{$\begin{tabular}{c}
Cost

$}$

Nonmanu- <br>
facturing
\end{tabular}


$\begin{array}{cc}\text { Cost } & \begin{array}{c}\text { Cost } \\ \text { Tracing } \\ \text { Allocation } \\ \text { facturing }\end{array}\end{array}$
X

|  |  | X |
| :---: | :---: | :---: |
|  | X |  |
|  | X |  |
|  | X |  |
| $X$ | $X$ |  |
|  |  | $X$ |
| $X$ | $X$ |  |

Terms to Learn: cost tracing, cost allocation
178. Butler Hospital wants to estimate the cost for each patient stay. It is a general health care facility offering only basic services and not specialized services such as organ transplants.

## Required:

a. Classify each of the following costs as either direct or indirect with respect to each patient.
b. Classify each of the following costs as either fixed or variable with respect to hospital costs per day.
Direct Indirect Fixed Variable


Answer:

| Electronic monitoring | X |  |  | X |
| :--- | :--- | :--- | :--- | :--- |
| Meals for patients | X |  |  | X |
| Nurses' salaries |  | X | X |  |
| Parking maintenance |  | X | X |  |
| Security | X | X |  |  |

Difficulty: $2 \quad$ Objectives: 2, 3 Terms to Learn: direct costs, indirect costs, fixed costs, variable costs
179. Springfield Manufacturing produces electronic storage devices, and uses the following three-part classification for its manufacturing costs: direct materials, direct manufacturing labor, and indirect manufacturing costs. Total indirect manufacturing costs for January were $\$ 300$ million, and were allocated to each product on the basis of direct manufacturing labor costs of each line. Summary data (in millions) for January for the most popular electronic storage device, the Big Bertha, was:

## Big Bertha

Direct manufacturing costs
\$9,000,000
Direct manufacturing labor costs
\$3,000,000
Indirect manufacturing costs \$8,500,000
Units produced 40,000

## Required:

a. Compute the manufacturing cost per unit for each product produced in January.
b. Suppose production will be reduced to 30,000 units in February. Speculate as to whether the unit costs in February will most likely be higher or lower than unit costs in January; it is not necessary to calculate the exact February unit cost. Briefly explain your reasoning.

## Answer:

a. Unit costs for January were:

$$
(\$ 9,000,000+\$ 3,000,000+\$ 8,500,000) / 40,000=\$ 512.50 \text { per unit }
$$

b. Unit costs should be higher in February if only 30,000 units are to be produced. Indirect manufacturing costs most likely include both fixed and variable components. Since fewer units are expected to be produced in February, total fixed costs will be spread over fewer units. This will result in an increase in total cost per unit since variable costs per unit will most likely not change with the decreased production.

Difficulty: $2 \quad$ Objectives: 2,3,4 Terms to Learn: unit cost
180. Whippany manufacturing wants to estimate costs for each product they produce at its Troy plant. The Troy plant produces three products at this plant, and runs two flexible assembly lines. Each assembly line can produce all three products.

## Required:

a. Classify each of the following costs as either direct or indirect for each product.
b. Classify each of the following costs as either fixed or variable with respect to the number of units produced of each product.

Direct Indirect Fixed Variable
Assembly line labor wages _ _ _ _ _ _ _ _
Plant manager's wages
Depreciation on the
assembly line equipment
Component parts for the product
Wages of security personnel for the factory $\qquad$
Answer:
Direct Indirect Fixed Variable
Assembly line labor wages

X
Plant manager's wages
Depreciation on the assembly line equipment Component parts for the product

X
X
Adhesive to hold the parts together and is an insignificant part of the final cost of the product

X
X
Difficulty: 2 Objectives: 2,3,4 Terms to Learn: fixed cost, variable cost, direct cost, indirect cost
181. The list of representative cost drivers in the right column below are randomized with respect to the list of functions in the left column. That is, they do not match.

|  | Function |  | Representative Cost Driver |
| :--- | :--- | :--- | :--- |
| 1. | Purchasing | A. | Number of employees |
| 2. | Billing | B. | Number of shipments |
| 3. | Shipping | C. | Number of customers |
| 4. | Computer Support | D. | Number of invoices |
| 5. | Personnel | E. | Number of desktop computers |
| 6. | Customer Service | F. | Number of purchase orders |

## Required:

Match each business function with its representative cost driver.

|  | Function | Insert letter of appropriate driver <br> (A through F) |
| :--- | :--- | :--- |
| 1. | Purchasing |  |
| 2. | Billing |  |
| 3. | Shipping |  |
| 4. | Computer Support |  |
| 5. | Personnel |  |
| 6. | Customer service |  |

Answer:

|  | Function | Insert letter of appropriate driver <br> (A through F) |
| :--- | :--- | :--- |
| 1. | Purchasing | F |
| 2. | Billing | D |
| 3. | Shipping | B |
| 4. | Computer support | E |
| 5. | Personnel | A |
| 6. | Customer service | C |

Difficulty: 2 Objective: 3 Terms to Learn: cost driver
182. Combs, Inc., reports the following information for September sales:

| Sales | $\$ 15,000$ |
| :--- | ---: |
| Variable costs | 3,000 |
| Fixed costs | $\underline{4,000}$ |
| Operating income | $\underline{\$ 8,000}$ |

## Required:

If sales double in October, what is the projected operating income?

## Answer:

$(\$ 15,000 \times 2)-(\$ 3,000 \times 2)-\$ 4,000=\$ 20,000$
Difficulty: 2 Objective: 4 Terms to Learn: fixed cost, variable cost
183. Axle and Wheel Manufacturing currently produces 1,000 axles per month. The following per unit data apply for sales to regular customers:

| Direct materials | $\$ 200$ |
| :--- | ---: |
| Direct manufacturing labor | 30 |
| Variable manufacturing overhead | 60 |
| Fixed manufacturing overhead | $\underline{40}$ |
| $\quad \underline{\$ 30}$ |  |
| Total manufacturing costs |  |

The plant has capacity for 2,000 axles.

## Required:

a. What is the total cost of producing 1,000 axles?
b. What is the total cost of producing 1,500 axles?
c. What is the per unit cost when producing 1,500 axles?

## Answer:

a. $\quad[(\$ 200+\$ 30+\$ 60) \times 1,000$ units $]+(\$ 40 \times 1,000$ units $)=\$ 330,000$
b. $[(\$ 200+\$ 30+\$ 60) \times 1,500$ units $]+\$ 40,000=\$ 475,000$
c. $\$ 475,000 / 1,500=\$ 316.67$ per unit

Difficulty: 2 Objective: 4 Terms to Learn: $\begin{aligned} & \text { fixed cost, variable cost, } \\ & \text { unit cost }\end{aligned}$
184. The following information pertains to Ball Company:

| Manufacturing costs | $\$ 2,400,000$ |
| :--- | ---: |
| Units manufactured | 40,000 |
| Beginning inventory | 0 units |

39,800 units are sold during the year for $\$ 100$ per unit.

## Required:

a. What is the average manufacturing cost per unit?
b. What is the amount of ending finished goods inventory?
c. What is the amount of gross margin?

## Answer:

a. $\quad \$ 2,400,000 / 40,000=\$ 60.00$
b. $(40,000-39,800) \times \$ 60=\$ 12,000$
c. $39,800 \times(\$ 100-\$ 60)=\$ 1,592,000$

Difficulty: $2 \quad$ Objectives: 3, 4, 7 Terms to Learn: unit cost, finished goods
185. Evans Inc., had the following activities during 20X5:

| Direct materials: |  |
| :--- | ---: |
| Beginning inventory | $\$ 40,000$ |
| Purchases | 123,200 |
| Ending inventory | 20,800 |
| Direct manufacturing labor | 32,000 |
| Manufacturing overhead | 24,000 |
| Beginning work-in-process inventory | 1,600 |
| Ending work-in-process inventory | 8,000 |
| Beginning finished goods inventory | 48,000 |
| Ending finished goods inventory | 32,000 |

## Required:

a. What is the cost of direct materials used during 20X5?
b. What is cost of goods manufactured for 20X5?
c. What is cost of goods sold for 20X5?
d. What amount of prime costs was added to production during 20X5?
e. What amount of conversion costs was added to production during 20X5?

## Answer:

a. $\$ 40,000+\$ 123,200-\$ 20,800=\$ 142,400$
b. $\$ 142,400+\$ 32,000+\$ 24,000+\$ 1,600-\$ 8,000=\$ 192,000$
c. $\$ 192,000+\$ 48,000-\$ 32,000=\$ 208,000$
d. $\$ 142,400+\$ 32,000=\$ 174,400$
e. $\$ 32,000+\$ 24,000=\$ 56,000$

Difficulty: 2 Objectives: 6,7 Terms to Learn: direct cost, indirect cost, prime cost, conversion cost
186. Helmer Sporting Goods Company manufactured 100,000 units in 20X5and reported the following costs:

| Sandpaper | $\$ 32,000$ | Leasing costs — plant | $\$ 384,000$ |
| :--- | ---: | :--- | ---: |
| Materials handling | 320,000 | Depreciation — equipment | 224,000 |
| Coolants \& lubricants | 22,400 | Property taxes - equipment | 32,000 |
| Indirect manufacturing labor | 275,200 | Fire insurance - equipment | 16,000 |
| Direct manufacturing labor | $2,176,000$ | Direct material purchases | $3,136,000$ |
| Direct materials, 1/1/X5 | 384,000 | Direct materials, 12/31/X5 | 275,200 |
| Finished goods, 1/1/X5 | 672,000 | Sales revenue | $12,800,000$ |
| Finished goods, 12/31/X5 | $1,280,000$ | Sales commissions | 640,000 |
| Work-in-process, 1/1/X5 | 96,000 | Sales salaries | 576,000 |
| Work-in-process, 12/31/X5 | 64,000 | Advertising costs | 480,000 |
|  |  | Administration costs | 800,000 |

## Required:

a. What is the amount of direct materials used during 20X5?
b. What manufacturing costs were added to WIP during 20X5?
c. What is cost of goods manufactured for 20X5?
d. What is cost of goods sold for 20X5?

## Answer:

a. $\$ 384,000+\$ 3,136,000-\$ 275,200=\$ 3,244,800$
b. $\$ 3,244,800+\$ 2,176,000+\$ 32,000+\$ 320,000+\$ 22,400+\$ 275,200+$ $\$ 384,000+\$ 224,000+\$ 32,000+\$ 16,000=\$ 6,726,400$
c. $\$ 6,726,400+\$ 96,000-\$ 64,000=\$ 6,758,400$
d. $\$ 6,758,400+\$ 672,000-\$ 1,280,000=\$ 6,150,400$

Difficulty: 3 Objectives: 6,7 Terms to Learn: cost of goods manufactured
187. Messinger Manufacturing Company had the following account balances for the quarter ending March 31, unless otherwise noted:

| Work-in-process inventory (January 1) | $\$ 140,400$ |
| :--- | ---: |
| Work-in-process inventory (March 31) | 171,000 |
| Finished goods inventory (January 1) | 540,000 |
| Finished goods inventory (March 31) | 510,000 |
|  |  |
| Direct materials used | 378,000 |
| Indirect materials used | 84,000 |
| Direct manufacturing labor | 480,000 |
| Indirect manufacturing labor | 186,000 |
|  |  |
| Property taxes on manufacturing plant building | 28,800 |
| Salespersons' company vehicle costs | 12,000 |
| Depreciation of manufacturing equipment | 264,000 |
| Depreciation of office equipment | 123,600 |
|  |  |
| Miscellaneous plant overhead | 135,000 |
| Plant utilities | 92,400 |
| General office expenses | 305,400 |
| Marketing distribution costs | 30,000 |

## Required:

a. Prepare a cost of goods manufactured schedule for the quarter.
b. Prepare a cost of goods sold schedule for the quarter.

## Answer:

a.

## Messinger Manufacturing Company Cost of Goods Manufactured Schedule For quarter ending March 31

Direct materials used
Direct manufacturing labor
Manufacturing overhead
Depreciation of manufacturing equipment \$264,000
Indirect manufacturing labor 186,000
Indirect materials 84,000
Miscellaneous plant overhead 135,000
Plant utilities 92,400
Property taxes on building $\underline{28,800}$
Manufacturing costs incurred
Add beginning work-in-process inventory
Total manufacturing costs
Less ending work-in-process inventory
Cost of goods manufactured
\$ 378,000
480,000

790,200
\$1,648,200
140,400
\$1,788,600
171,000
\$1,617,600
b.

## Messinger Manufacturing Company Cost of Goods Sold Schedule For the quarter ending March 31

| Beginning finished goods inventory | $\$ 540,000$ |
| :--- | ---: |
| Cost of goods manufactured | $\underline{1,617,600}$ |
| Cost of goods available for sale | $\underline{2,157,600}$ |
| Ending finished goods inventory | $\underline{\$ 1,647,000)}$ |
| Cost of goods sold |  |

Difficulty: 2 Objectives: 6,7 Terms to Learn: cost of goods manufactured
188. Using the following information find the unknown amounts. Assume each set of information is an independent case.
a. Merchandise Inventory
Purchases
\$420,000
Cost of goods sold 446,000
Beginning balance
82,000
Ending balance
?
b. Direct Materials
$\begin{array}{lr}\text { Beginning balance } & \$ 14,000 \\ \text { Ending balance } & 28,000 \\ \text { Purchases } & 96,000 \\ \text { Direct materials used } & ?\end{array}$
c. Work-in-process Inventory

| Ending balance | $\$ 44,000$ |
| :--- | ---: |
| Cost of goods manufactured | 42,000 |
| Beginning balance | 16,000 |

d. Finished Goods Inventor

| Cost of goods manufactured | $\$ 124,000$ |
| :--- | ---: |
| Ending balance | 40,000 |
| Cost of goods sold | 122,000 |
| Beginning balance | $?$ |

## Answer:

a. Ending balance of merchandise inventory:
$\$ 82,000+\$ 420,000-\$ 446,000=\$ 56,000$
b. Direct materials used:
$\$ 14,000+\$ 96,000-\$ 28,000=\$ 82,000$
c. Current manufacturing costs:
$\$ 42,000+\$ 44,000-\$ 16,000=\$ 70,000$
d. Beginning balance of finished goods inventory:
$\$ 40,000+\$ 122,000-\$ 124,000=\$ 38,000$
Difficulty: 2 Objectives: 6,7 Terms to Learn: cost of goods manufactured
189. Each of the following items pertains to one of these companies: Bedell Electronics (a manufacturing company), Gregory Food Retailers (a merchandising company), and Larson Real Estate (a service sector company). Classify each item as either inventoriable (I) costs or period (P) costs.

|  |  | inventoriable (I) costs or <br> period (P) costs |
| :--- | :--- | :--- |
| a. | Salary of Bedell Electronics president |  |
| b. | Depreciation on Bedell Electronics assembly <br> equipment. |  |
| c. | Salaries of Bedell's assembly line workers |  |
| d | Purchase of frozen food for sale to customers <br> by Gregory Food Retailers |  |
| e | Salaries of frozen food personnel at Gregory <br> Food Retailing |  |
| f | Depreciation on freezers at Gregory Food <br> Retailing |  |
| g. | Salary of a receptionist at Larson Real Estate |  |
| h. | Depreciation on a computer at Larson Real <br> Estate |  |
| i. | Salary of a real estate agent at Larson Real <br> Estate |  |

Answer:

|  |  | inventoriable (I) costs or <br> period (P) costs |
| :--- | :--- | :---: |
| a. | Salary of Bedell Electronics president | P |
| b. | Depreciation on Bedell Electronics assembly <br> equipment. | I |
| c. | Salaries of Bedell's assembly line workers | I |
| d | Purchase of frozen food for sale to customers <br> by Gregory Food Retailers | I |
| e | Salaries of frozen food personnel at Gregory <br> Food Retailing | P |
| f | Depreciation on freezers at Gregory Food <br> Retailing | P |
| g. | Salary of a receptionist at Larson Real Estate | P |
| h. | Depreciation on a computer at Larson Real <br> Estate | P |
| i. | Salary of a real estate agent at Larson Real <br> Estate | P |

Difficulty: 2 Objective: 7 Terms to Learn: inventoriable costs, period costs
190. On the assembly floor, Cynthia Evans is paid $\$ 20$ an hour for straight-time and $\$ 30$ an hour for overtime. One week she worked 43 hours, which included 3 hours of overtime.

## Required:

a. What is Cynthia's total compensation for the week?
b. What amount of compensation would be reported as direct manufacturing labor?
c. What amount of compensation would be reported as manufacturing overhead?

## Answer:

a. Direct labor (43 hours x $\$ 20$ ) + Overtime premium (3 hrs x $\$ 10)=\$ 890$
b. Direct manufacturing labor (43 hours $x \$ 20$ ) $=\$ 860$
c. Manufacturing overhead costs $=$ Overtime premium ( $3 \mathrm{hrs} \times \$ 10$ ) $=\$ 30$

## Difficulty: 2 Objective: 7 Terms to Learn: overtime premium

191. In the manufacturing plant, Leslie Grant is paid $\$ 20$ an hour for straight-time and $\$ 30$ an hour for overtime. One week she worked 46 hours, which included 6 hours of overtime, and 4 hours of idle time caused by material shortages.

## Required:

a. What is Leslie's total compensation for the week?
b. What amount of compensation would be reported as direct manufacturing labor?
c. What amount of compensation would be reported as manufacturing overhead?

## Answer:

a. Direct manufacturing labor (42 hours x \$20) + Idle time (4 hrs x \$20) + Overtime premium (6 hrs x \$10) = \$980
b. Direct manufacturing labor ( 42 hours $\mathrm{x} \$ 20$ ) $=\$ 840$
c. Manufacturing overhead costs = Idle time ( $4 \mathrm{hrs} \times \$ 20)+$ Overtime premium $(6 \mathrm{hrs} \mathrm{x} \mathrm{\$ 10})=\$ 140$

Difficulty: 2 Objective: 7 Terms to Learn: overtime premium, idle time

## CRITICAL THINKING

192. What is the meaning of the term "cost object"? Give an example of a cost object that would be used in a manufacturing company, a merchandising company, and a service sector company?

## Answer:

A cost object is anything for which a measurement of costs is desired. An example of a cost object for a manufacturing company might be the cost of manufacturing a particular product. An example of a cost object for a merchandising company might be a particular department of a retail store. An example of a cost object for a service sector company might be the cost to serve or supply a particular customer.

Difficulty: 3 Objectives: 1,5 Terms to Learn: cost object
193. Why is it possible that a raw material such as glue might be considered as an indirect material for one furniture manufacturer and as a direct material for another furniture manufacture?


#### Abstract

Answer: It is possible for a raw material such as glue to be considered as an indirect material by one furniture manufacturer and as a direct material by another furniture manufacturer. The decision is largely a choice by the manufacturer and depends on a number of factors including the materiality of the cost in question, the cost of gathering the information, and the design of the manufacturing process. If the product in question has an insignificant cost, it might not be worth the trouble to trace the cost of the glue to each piece of furniture, and the glue would be considered indirect. If the cost of tracing the cost of the glue is high in relation to the benefits received from tracing it, the glue would likely be considered as indirect material. If the design of the manufacturing process easily permits all the glue to be traced to a single type of furniture, then it would be easy for a company to consider that material to be direct. Overall, the direct/indirect classification is decided on a cost/benefit basis.


Difficulty: 3 Objective: 2 Terms to Learn: direct material
194. What are the differences between direct costs and indirect costs? Give an example of each.

## Answer:

Direct costs are costs that can be traced easily to the product manufactured or the service rendered. Examples of direct costs include direct materials and direct manufacturing labor used in a product. Indirect costs cannot be easily identified with individual products or services rendered, and are usually assigned using allocation formulas. In a plant that manufactures multiple products, examples of indirect costs include the plant supervisor's salary and the cost of machines used to produce more than one type of product.

Difficulty: 2 Objective: 2 Terms to Learn: direct costs, indirect costs
195. Describe a variable cost. Describe a fixed cost. Explain why the distinction between variable and fixed costs is important in cost accounting.

## Answer:

Total variable costs increase with increased production or sales volumes.
Fixed costs are not influenced by fluctuations in production or sales volumes.
Without the knowledge of cost behaviors, budgets and other forecasting tools will be inaccurate and unreliable. Understanding whether a cost behaves as a variable or a fixed cost is essential to estimating and planning for business success.

Difficulty: 2 Objective: 3 Terms to Learn: variable cost, fixed cost
196. Explain the difference between an inventoriable cost and a period cost. What potential problems does an inaccurate classification of product and period costs cause?

## Answer:

Inventoriable costs are all costs of a product that are considered as assets in the balance sheet when they are incurred and which become cost of goods sold only when the product is sold. Period costs are treated as expenses of the accounting period in which they are incurred. An inaccurate classification of inventoriable and period costs could lead to violations of the matching principle, which states that costs used in producing revenue should be matched on the income statement when the revenue is recognized. In extreme cases, net income for a given period might be significantly misstated if proper matching does not occur.

## Difficulty: 2 Objective: 7 Terms to Learn: inventoriable cost

197. When should the overtime premium of direct manufacturing labor be considered an indirect manufacturing cost? A direct manufacturing cost?

## Answer:

The overtime premium of direct manufacturing labor should be considered an indirect manufacturing cost when it is attributable to the overall volume of work, and a direct manufacturing cost when a "rush job" is the sole source of the overtime.

Difficulty: 2 Objective: 7 Terms to Learn: overtime premium

