

Chapter 02 Cost Terms, Concepts, and Classifications

1. What would be the classification of corporate controller's salary?
 - A. Manufacturing cost.
 - B. Product cost.
 - C. Administrative cost.
 - D. Selling cost.

2. How should the cost of the fire insurance for a manufacturing plant be classified?
 - A. Prime cost
 - B. Product cost.
 - C. Period cost.
 - D. Variable cost.

3. How would the cost of rent for a manufacturing plant generally be classified?
 - A. A product cost but **not** a prime cost.
 - B. **Neither** a product nor prime Cost.
 - C. A prime cost but **not** a product cost.
 - D. Both a prime cost and product cost.

4. For a lamp manufacturing company, the cost of the insurance on its vehicles that deliver lamps to customers is best described as a:
- A. Prime cost.
 - B. Manufacturing overhead cost.
 - C. Period cost.
 - D. Differential cost of a lamp.
5. For a manufacturing company, which of the following is an example of a period rather than a product cost?
- A. Depreciation of factory equipment.
 - B. Wages of salespersons.
 - C. Wages of machine operators.
 - D. Insurance on factory equipment.
6. Which of the following would be considered a product cost for external financial reporting purposes?
- A. Cost of a warehouse used to store finished goods.
 - B. Cost of guided public tours through the company's facilities.
 - C. Cost of travel necessary to sell the manufactured product.
 - D. Cost of sand spread on the factory floor to absorb oil from manufacturing machines.

7. Which of the following would **not** be treated as a product cost for external financial reporting purposes?
- A. Depreciation on a factory building.
 - B. Salaries of factory workers.
 - C. Indirect labour in the factory.
 - D. Advertising expenses.
8. What would be the classification of the transportation costs incurred by a manufacturing company to ship its product to its customers?
- A. Product cost.
 - B. Manufacturing overhead.
 - C. Period cost.
 - D. Administrative cost.
9. The advertising costs incurred by Pepsi to air its commercials during the hockey season can best be described as a:
- A. Variable cost.
 - B. Fixed cost.
 - C. Prime cost.
 - D. Conversion cost.

10. Micro Computer Company has set up a toll-free telephone line for customer inquiries regarding computer hardware produced by the company. How would the cost of this toll-free line be classified?

- A. Product cost.
- B. Manufacturing overhead.
- C. Direct labour.
- D. Period cost.

11. How would the wages of factory maintenance personnel usually be classified?

- A. Direct labour and manufacturing overhead.
- B. Indirect labour and manufacturing overhead.
- C. Direct labour and period cost.
- D. Indirect labour and period cost

12. Prime costs consist of:

- A. Direct Labour and Manufacturing Overhead.
- B. Direct Material and Direct Labour.
- C. Direct Material and Manufacturing overhead.
- D. Direct Material, Direct Labour and Manufacturing Overhead.

13. What does manufacturing overhead cost consist of?
- A. All manufacturing costs.
 - B. All manufacturing costs, EXCEPT direct materials and direct labour.
 - C. Indirect materials but NOT indirect labour.
 - D. Indirect labour but NOT indirect materials.
14. Which of the following should **NOT** be included as part of manufacturing overhead at a company that makes office furniture?
- A. Sheet steel in a file cabinet made by the company.
 - B. Manufacturing equipment depreciation.
 - C. Idle time for direct labour.
 - D. Taxes on a factory building.
15. Rossiter Company failed to record a credit sale at the end of the year, although the reduction in finished goods inventories was correctly recorded when the goods were shipped to the customer. Which one of the following statements is correct?
- A. Accounts receivable was not affected, inventory was not affected, sales were understated, and cost of goods sold was understated.
 - B. Accounts receivable was understated, inventory was overstated, sales were understated, and cost of goods sold was overstated.
 - C. Accounts receivable was not affected, inventory was understated, sales were understated, and cost of goods sold was understated.
 - D. Accounts receivable was understated, inventory was not affected, sales were understated, and cost of goods sold was not affected.

16. What is the outcome if the cost of goods sold is greater than the cost of goods manufactured?
- A. Work-in-process inventory has decreased during the period.
 - B. Finished goods inventory has increased during the period.
 - C. Total manufacturing costs must be greater than cost of goods manufactured.
 - D. Finished goods inventory has decreased during the period.
17. Last month, when 10,000 units of a product were manufactured, the cost per unit was \$60. At this level of activity, variable costs were 50% of total unit costs. If 10,500 units are manufactured next month and cost behaviour patterns remain unchanged, how will costs be affected?
- A. Total variable costs will remain unchanged.
 - B. Fixed costs will increase in total.
 - C. Variable cost per unit will increase.
 - D. Total cost per unit will decrease.
18. Which of the following statements regarding variable cost is true?
- A. Variable cost increases on a per unit basis as the number of units produced increases.
 - B. Variable cost remains constant on a per unit basis as the number of units produced increases.
 - C. Variable cost remains the same in total as production increases.
 - D. Variable cost decreases on a per unit basis as the number of units produced increases.

19. Within the relevant range, what is the difference between variable costs and fixed costs?

- A. Variable costs per unit fluctuate and fixed costs per unit remain constant.
- B. Variable costs per unit are constant and fixed costs per unit fluctuate.
- C. Total variable costs and total fixed costs are constant.
- D. Total variable costs and total fixed costs fluctuate.

20. The Zellers store in your home town is one of many Zeller's department stores across the province. Some of the costs associated with the store in your home town last month appear below:

| | |
|-----------------------------------|----------|
| Shoe Department Cost of Sales | \$80,000 |
| Other Department Salaries | 62,000 |
| Store Managers Salary | 14,000 |
| Shoe Department Sales Commissions | 8,000 |
| Store Utilities | 13,000 |
| Shoe Department Manager's Salary | 9,000 |
| Store Lease Cost | 11,000 |
| Store Janitorial Costs | 11,000 |
| Other Store Costs | 98,000 |

The Shoe Department is one of many departments in the home town store. The direct costs of the Shoe Department total:

- A. \$80,000
- B. \$88,000
- C. \$97,000
- D. \$108,000

21. Which of the following best defines an opportunity cost?

- A. The difference in total costs from selecting one alternative instead of another.
- B. The benefit forgone by selecting one alternative instead of another.
- C. A cost that may be saved by NOT adopting an alternative.
- D. A cost that may be shifted to the future with little or no effect on current operations.

22. To what does the term differential cost refer?

- A. A difference in cost that results from selecting one alternative instead of another.
- B. The benefit forgone by selecting one alternative instead of another.
- C. A cost that does not entail any dollar outlay, but which is relevant to the decision-making process.
- D. A cost that continues to be incurred even though there is no activity.

23. Which of the following costs is often important in decision making, but is omitted from conventional accounting records?

- A. Fixed cost.
- B. Sunk cost.
- C. Opportunity cost.
- D. Indirect cost.

24. When a decision is made among a number of alternatives, the benefit that is lost by choosing one alternative over another is called what?
- A. Realized cost.
 - B. Opportunity cost.
 - C. Conversion cost.
 - D. Accrued cost.
25. What does conversion cost consist of?
- A. Manufacturing overhead cost.
 - B. Direct materials and direct labour cost.
 - C. Direct labour cost.
 - D. Direct labour and manufacturing overhead cost.
26. Prime cost consists of direct materials and what?
- A. Direct labour.
 - B. Manufacturing overhead.
 - C. Indirect materials.
 - D. Cost of goods manufactured.

27. Which one of the following costs should NOT be considered a direct cost of serving a particular customer who orders a customized personal computer by phone directly from the manufacturer?
- A. The cost of the hard disk drive installed in the computer.
 - B. The cost of shipping the computer to the customer.
 - C. The cost of leasing a machine on a monthly basis that automatically tests hard disk drives before they are installed in computers.
 - D. The cost of packaging the computer for shipment.
28. Which one of the following costs should NOT be considered an indirect cost of serving a particular customer at a Dairy Queen fast food outlet?
- A. The cost of the hamburger patty in the burger the customer ordered.
 - B. The wages of the employee who takes the customer's order.
 - C. The cost of heating and lighting the kitchen.
 - D. The salary of the outlet's manager.

29. Green Company's costs for the month of August are as follows:

| | |
|---------------------------------------|----------|
| Direct materials used | \$27,000 |
| Direct labour | \$34,000 |
| Sales salaries | \$14,000 |
| Indirect labour | \$10,000 |
| Indirect materials | \$15,000 |
| General corporate administrative cost | \$12,000 |
| Taxes on manufacturing facility | \$2,000 |
| Rent on factory | \$17,000 |

The beginning work-in-process inventory is \$16,000 and the ending work-in-process inventory is \$9,000. What is the cost of goods manufactured for the month?

- A. \$105,000
- B. \$132,000
- C. \$138,000
- D. \$112,000

30. A manufacturing company prepays its insurance coverage for a three-year period. The premium for the three years is \$2,700 and is paid at the beginning of the first year. Eighty percent of the premium applies to manufacturing operations and 20% applies to selling and administrative activities. What amounts should be considered product costs and period costs respectively for the first year of coverage?

| | <u>Product Costs</u> | <u>Period Costs</u> |
|----|----------------------|---------------------|
| A) | \$2,700 | \$0 |
| B) | \$2,160 | \$540 |
| C) | \$1,440 | \$360 |
| D) | \$720 | \$180 |

- A. Option A
- B. Option B
- C. Option C
- D. Option D

31. You have the following data:

| | |
|----------------------------|------|
| Cost of goods sold | \$70 |
| Direct labour | \$20 |
| Direct materials | \$15 |
| Cost of goods manufactured | \$80 |
| Work-in-process ending | \$10 |
| Finished goods ending | \$15 |
| Manufacturing overhead | \$30 |

Which of the following represents the beginning work-in-process inventory?

- A. \$20.
- B. \$15.
- C. \$55.
- D. \$25.

32. During the month of May, Bennett Manufacturing Company purchases \$43,000 of raw materials. The manufacturing overhead totals \$27,000 and the total manufacturing costs are \$106,000. Assuming a beginning inventory of raw materials of \$8,000 and an ending inventory of raw materials of \$6,000, what must be the total for direct labour?

- A. \$34,000.
- B. \$38,000.
- C. \$36,000.
- D. \$45,000.

33. You are given the following data for January:

| | |
|-------------------------------------|----------|
| Direct materials | \$38,000 |
| Direct labour | \$24,000 |
| Manufacturing overhead | \$17,000 |
| Beginning work in process inventory | \$10,000 |
| Ending work in process inventory | \$11,000 |

Which of the following is the cost of goods manufactured?

- A. \$89,000.
- B. \$78,000.
- C. \$79,000.
- D. \$80,000.

34. During the month of June, Reardon Company incurs \$17,000 of direct labour and \$8,500 of manufacturing overhead, and purchases \$15,000 of raw materials. Between the beginning and the end of the month, the raw-materials inventory increases by \$2,000, the finished goods inventory increases by \$1,500, and the work-in-process inventory decreases by \$3,000. What is the cost of goods manufactured?

- A. \$38,500.
- B. \$40,500.
- C. \$41,500.
- D. \$43,500.

35. Mueller Company reports the following data for the year just ended:

| | |
|----------------------------------|-------------|
| Raw materials used in production | \$800,000 |
| Direct labour | \$700,000 |
| Total overhead costs | \$900,000 |
| Ending work-in-process inventory | \$400,000 |
| Cost of goods manufactured | \$2,500,000 |

What was the beginning work-in-process inventory?

- A. \$300,000.
 - B. \$500,000.
 - C. \$1,300,000.
 - D. \$100,000.
36. Williams Company's direct labour cost is 25% of its conversion cost. If the manufacturing overhead cost for the last period is \$45,000 and the direct materials cost is \$25,000, what is the direct labour cost?
- A. \$15,000.
 - B. \$60,000.
 - C. \$33,333.
 - D. \$20,000.
37. The Lyons Company's cost of goods manufactured was \$120,000 when its sales were \$360,000 and its gross margin was \$220,000. If the ending inventory of finished goods was \$30,000, what was the beginning inventory of finished goods?
- A. \$20,000.
 - B. \$50,000.
 - C. \$110,000.
 - D. \$150,000.

38. The gross margin for Cushing Company for the first quarter of last year was \$325,000 when sales were \$700,000. The beginning inventory of finished goods was \$60,000, and the ending inventory of finished goods was \$85,000. What was the cost of goods manufactured for the first quarter?

- A. \$375,000.
- B. \$350,000.
- C. \$400,000.
- D. \$385,000.

39. Last month, a manufacturing company had the following operating results:

| | |
|------------------------------------|-----------|
| Beginning finished goods inventory | \$74,000 |
| Ending finished goods inventory | \$73,000 |
| Sales | \$464,000 |
| Gross margin | \$52,000 |

What was the cost of goods manufactured for the month?

- A. \$413,000
- B. \$411,000
- C. \$412,000
- D. \$463,000

40. The following information was provided by Wilson Company for the year just ended:

| | |
|------------------------------------|-----------|
| Beginning finished goods inventory | \$150,750 |
| Ending finished goods inventory | \$140,475 |
| Sales | \$475,000 |
| Gross margin | \$150,000 |

What was the cost of goods manufactured for the year?

- A. \$314,725.
- B. \$335,275.
- C. \$325,000.
- D. \$464,725.

41. The following information was provided by Grand Company for the year just ended:

| | |
|--------------------------------------|-----------|
| Decrease in finished goods inventory | \$4,655 |
| Sales | \$500,000 |
| Gross margin | \$100,000 |

What was the cost of goods manufactured for the year?

- A. \$95,345.
- B. \$104,655.
- C. \$395,345.
- D. \$404,655.

42. The following inventory valuation errors were discovered by Knox Corporation's new controller just after the annual financial statements were published at the end of Year 3.

The Year 3 ending inventory was understated by \$17,000.

The Year 2 ending inventory was understated by \$61,000.

The Year 1 ending inventory was overstated by \$23,000.

The net income for Knox in each of these years was:

| | <u>Year 3</u> | <u>Year 2</u> | <u>Year 1</u> |
|------------|---------------|---------------|---------------|
| Net income | \$168,000 | \$254,000 | \$138,000 |

Assuming there were no income taxes, what was the adjusted net income in each year?

| | <u>Year 3</u> | <u>Year 2</u> | <u>Year 1</u> |
|----|---------------|---------------|---------------|
| A) | \$212,000 | \$170,000 | \$161,000 |
| B) | \$124,000 | \$338,000 | \$115,000 |
| C) | \$90,000 | \$338,000 | \$161,000 |
| D) | \$124,000 | \$170,000 | \$115,000 |

A. Option A

B. Option B

C. Option C

D. Option D

43. Delta Merchandising, Inc., has provided the following information for the year just ended:

| | |
|---------------------|-----------|
| Net sales | \$128,500 |
| Beginning inventory | \$24,000 |
| Purchases | \$80,000 |
| Gross margin | \$38,550 |

What was the ending inventory for the company at year-end?

A. \$65,450.

B. \$24,500.

C. \$14,050.

D. \$9,950.

44. The beginning balance of the raw materials inventory account for May was \$27,500. The ending balance for May was \$28,750, and \$128,900 of raw materials were used during the month. What was the cost of the materials purchased during the month?
- A. \$131,300.
 - B. \$127,650.
 - C. \$130,150.
 - D. \$157,650.
45. Gabel Inc. is a merchandising company. Last month, the company's merchandise purchases totalled \$63,000. The company's beginning merchandise inventory was \$13,000, and its ending merchandise inventory was \$15,000. What was the company's cost of goods sold for the month?
- A. \$91,000.
 - B. \$63,000.
 - C. \$65,000.
 - D. \$61,000.
46. Haack Inc. is a merchandising company. Last month, the company's cost of goods sold was \$84,000. The company's beginning merchandise inventory was \$20,000, and its ending merchandise inventory was \$18,000. What was the total amount of the company's merchandise purchases for the month?
- A. \$86,000.
 - B. \$82,000.
 - C. \$84,000.
 - D. \$122,000.

47. During January, the cost of goods manufactured was \$93,000. The beginning finished goods inventory was \$16,000, and the ending finished goods inventory was \$20,000. What was the cost of goods sold for the month?
- A. \$129,000.
 - B. \$89,000.
 - C. \$93,000.
 - D. \$97,000.
48. Sally Smith is employed in the production of various electronic products, and she earns \$8 per hour. She is paid time-and-a-half for work in excess of 40 hours per week. During a given week, she worked 45 hours and had no idle time. How much of her week's wages would be charged to manufacturing overhead?
- A. \$60.
 - B. \$20.
 - C. \$40.
 - D. \$0.
49. During the first week of April, Gillian worked a total of 50 hours assembling products and had no idle time. Gillian is paid \$15 per hour for regular time, and is paid time-and-a-half for all hours in excess of a 40-hour week. How much of Gillian's wages for the week should be charged to direct labour?
- A. \$600.
 - B. \$225.
 - C. \$750.
 - D. \$975.

50. Robert Smith earns \$16 per hour assembling products. For each hour over 40 he works in a week, he is paid time-and-a-half. During a given week, he worked 45 hours and had no idle time. How much of his weekly wages would be charged to the manufacturing overhead account?

- A. \$80.
- B. \$45.
- C. \$40.
- D. \$120.

The following data (in thousands of dollars) have been taken from the accounting records of Karling Corporation for the year just ended.

| | |
|--------------------------------------|-------|
| Sales | \$990 |
| Raw materials inventory, beginning | \$40 |
| Raw materials inventory, ending | \$70 |
| Purchases of raw materials | \$120 |
| Direct labour | \$200 |
| Manufacturing overhead | \$230 |
| Administrative expenses | \$150 |
| Selling expenses | \$140 |
| Work-in-process inventory, beginning | \$70 |
| Work-in-process inventory, ending | \$50 |
| Finished goods inventory, beginning | \$120 |
| Finished goods inventory, ending | \$160 |

51. What was the cost (in thousands of dollars) of the raw materials used in production during the year?

- A. \$190.
- B. \$90.
- C. \$150.
- D. \$160.

52. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

- A. \$540.
- B. \$500.
- C. \$570.
- D. \$590.

53. What was the cost of goods sold (in thousands of dollars) for the year?

- A. \$700.
- B. \$500.
- C. \$660.
- D. \$580.

54. What was the net income (in thousands of dollars) for the year?

- A. \$150.
- B. \$200.
- C. \$490.
- D. \$250.

The following data (in thousands of dollars) have been taken from the accounting records of Karlana Corporation for the year just ended.

| | |
|--------------------------------------|-------|
| Sales | \$910 |
| Raw materials inventory, beginning | \$80 |
| Raw materials inventory, ending | \$20 |
| Purchases of raw materials | \$100 |
| Direct labour | \$130 |
| Manufacturing overhead | \$200 |
| Administrative expenses | \$160 |
| Selling expenses | \$140 |
| Work-in-process inventory, beginning | \$40 |
| Work-in-process inventory, ending | \$10 |
| Finished goods inventory, beginning | \$130 |
| Finished goods inventory, ending | \$150 |

55. What was the cost of the raw materials used in production (in thousands of dollars) during the year?

- A. \$180.
- B. \$40.
- C. \$120.
- D. \$160.

56. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

- A. \$530.
- B. \$520.
- C. \$500.
- D. \$460.

57. What was the net income (in thousands of dollars) for the year?

- A. \$410.
- B. \$110.
- C. \$40.
- D. \$180.

The following data (in thousands of dollars) have been taken from the accounting records of Karlist Corporation for the just completed year.

| | |
|--------------------------------------|-------|
| Sales | \$800 |
| Raw materials inventory, beginning | \$60 |
| Raw materials inventory, ending | \$70 |
| Purchases of raw materials | \$180 |
| Direct labour | \$100 |
| Manufacturing overhead | \$190 |
| Administrative expenses | \$110 |
| Selling expenses | \$150 |
| Work-in-process inventory, beginning | \$70 |
| Work-in-process inventory, ending | \$80 |
| Finished goods inventory, beginning | \$120 |
| Finished goods inventory, ending | \$160 |

58. What was the cost of the raw materials used in production (in thousands of dollars) during the year?

- A. \$240.
- B. \$190.
- C. \$170.
- D. \$250.

59. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

- A. \$450.
- B. \$460.
- C. \$530.
- D. \$540.

60. What was the cost of goods sold (in thousands of dollars) for the year?

- A. \$610.
- B. \$410.
- C. \$490.
- D. \$570.

61. What was the Gross Margin (in thousands of dollars) for the year?

- A. \$350.
- B. \$130.
- C. \$390.
- D. \$190.

The following data pertain to Harriman Company's operations during July:

| | <u>July 1</u> | <u>July 31</u> |
|---------------------------|---------------|----------------|
| Raw materials inventory | 0 | \$5,000 |
| Work-in-process inventory | ? | \$4,000 |
| Finished goods inventory | \$12,000 | ? |

Other data:

| | |
|------------------------------|-----------|
| Cost of goods manufactured | \$105,000 |
| Raw materials used | \$40,000 |
| Manufacturing overhead costs | \$20,000 |
| Direct labour costs | \$39,000 |
| Gross Margin | \$100,000 |
| Sales | \$210,000 |

62. What was the beginning work-in-process inventory?

- A. \$10,000.
- B. \$14,000.
- C. \$1,000.
- D. \$4,000.

63. What was the ending finished goods inventory?

- A. \$17,000.
- B. \$12,000.
- C. \$7,000.
- D. \$2,000.

Bergeron Inc. reported the following data for last year:

| | |
|--------------------------------------|-------|
| Work-in-process inventory, beginning | \$100 |
| Work-in-process inventory, ending | \$150 |
| Finished goods inventory, beginning | \$180 |
| Finished goods inventory, ending | \$200 |
| Direct labour cost | \$300 |
| Direct materials cost | \$500 |
| Manufacturing overhead cost | \$400 |

64. Which of the following is the prime cost?

- A. \$900.
- B. \$800.
- C. \$1,200.
- D. \$700.

65. Which of the following is the conversion cost?

- A. \$700.
- B. \$800.
- C. \$900.
- D. \$1,200.

66. Which of the following is the cost of goods manufactured?

- A. \$1,250.
- B. \$1,200.
- C. \$1,220.
- D. \$1,150.

Geneva Steel Corporation produces large sheets of heavy gauge steel. The company showed the following amounts relating to its production for the year just completed:

| | |
|-------------------------------------|-----------|
| Direct materials used in production | \$110,000 |
| Direct labour costs for the year | \$55,000 |
| Work in process, beginning | \$22,000 |
| Finished goods, beginning | \$45,000 |
| Cost of goods available for sale | \$288,000 |
| Cost of goods sold | \$238,000 |
| Work in process, ending | \$16,000 |

67. What was the balance of the finished goods inventory at the end of the year?

- A. \$95,000.
- B. \$50,000.
- C. \$193,000.
- D. \$45,000.

68. What was the cost of goods manufactured for the year?

- A. \$171,000.
- B. \$160,000.
- C. \$243,000.
- D. \$244,000.

69. What was the manufacturing overhead cost for the year?

- A. \$84,000.
- B. \$78,000.
- C. \$56,000.
- D. \$72,000.

Boardman Company reported the following data for the month of January:

| Inventories: | <u>1/1</u> | <u>1/31</u> |
|-----------------|------------|-------------|
| Raw materials | \$32,000 | \$31,000 |
| Work in process | \$18,000 | \$12,000 |
| Finished goods | \$30,000 | \$35,000 |

| Additional information: | |
|------------------------------|-----------|
| Sales revenue | \$210,000 |
| Direct labour costs | \$40,000 |
| Manufacturing overhead costs | \$70,000 |
| Selling expenses | \$25,000 |
| Administrative expenses | \$35,000 |

70. If raw materials costing \$35,000 were purchased during January, what were the total manufacturing costs for the month?
- A. \$145,000.
 - B. \$144,000.
 - C. \$151,000.
 - D. \$146,000.
71. Assuming that cost of goods sold for January was \$124,000, what was the net income for January?
- A. \$61,000.
 - B. \$26,000.
 - C. \$51,000.
 - D. \$25,000.
72. Which of the following is Boardman Company's total conversion cost for January?
- A. \$110,000.
 - B. \$170,000.
 - C. \$135,000.
 - D. \$130,000.

73. Assuming that cost of goods sold for Boardman Company for January was \$140,000, what was the cost of goods manufactured for the month?

- A. \$140,000
- B. \$135,000
- C. \$145,000
- D. \$139,000

At a sales volume of 32,000 units, CD Company's total fixed costs are \$64,000 and total variable costs are \$60,000. The relevant range is 30,000 to 55,000 units.

74. If CD Company sells 43,000 units, what is the total expected cost?

- A. \$146,000.
- B. \$166,625.
- C. \$144,625.
- D. \$124,000.

75. If CD Company sells 50,000 units, what is the total expected cost per unit (rounded to the nearest cent)?

- A. \$3.20.
- B. \$2.48.
- C. \$3.88.
- D. \$3.16.

76. All costs incurred in a merchandising firm are considered to be period costs.

True False

77. In a manufacturing firm, depreciation is always considered a product cost for external financial reporting purposes.

True False

78. In external financial reports, factory utilities costs may be included in an asset account on the balance sheet at the end of the period.

True False

79. Advertising costs are considered product costs for external financial reports since they are incurred in order to promote specific products.

True False

80. Property taxes and insurance premiums paid on a factory building are examples of manufacturing overhead.

True False

81. Manufacturing overhead combined with direct materials is known as conversion cost.

True False

82. If the ending inventory of finished goods is understated, net income will be overstated.

True False

83. In a manufacturing company, goods available for sale equals the sum of the cost of goods manufactured and the beginning finished goods inventory.

True False

84. Variable costs are costs whose per unit costs vary as the activity level rises and falls.

True False

85. On a per unit basis, a fixed cost varies inversely with the level of activity.

True False

86. The following would typically be considered indirect costs of manufacturing a particular Boeing 747 to be delivered to Singapore Airlines: electricity to run production equipment, the factory manager's salary, and the cost of the General Electric jet engines installed on the aircraft.

True False

87. The following costs should be considered direct costs of providing delivery room services to a particular mother and her baby: the costs of drugs administered in the operating room, the attending physician's fees, and a portion of the liability insurance carried by the hospital to cover the delivery room.

True False

88. The following costs should be considered by a law firm to be indirect costs of defending a particular client in court: rent on the law firm's offices, the law firm's receptionist's wages, the costs of heating the law firm's offices, and the depreciation on the personal computer in the office of the attorney who has been assigned the client.

True False

89. A cost that differs from one month to another is known as a differential cost.

True False

90. Some companies classify labour fringe benefits for direct labour workers as part of the direct labour cost and some classify these costs as manufacturing overhead.

True False

91. Stony Electronics Corporation manufactures a portable radio designed for mounting on the wall of the bathroom. The following list represents some of the different types of costs incurred in the manufacture of these radios:

- 1) The plant manager's salary.
- 2) The cost of heating the plant.
- 3) The cost of heating executive offices.
- 4) The cost of printed circuit boards used in the radios.
- 5) Salaries and commissions of company salespersons.
- 6) Depreciation on office equipment used in the executive offices.
- 7) Depreciation on production equipment used in the plant.
- 8) Wages of janitorial personnel who clean the plant.
- 9) The cost of insurance on the plant building.
- 10) The cost of electricity to light the plant.
- 11) The cost of electricity to power plant equipment.
- 12) The cost of maintaining and repairing equipment in the plant.
- 13) The cost of printing promotional materials for trade shows.
- 14) The cost of solder used in assembling the radios.
- 15) The cost of telephone service for the executive offices.

Required:

Classify each of the items above as product (inventoriable) cost or period (noninventoriable) costs for the purpose of preparing external financial statements.

92. Bill Pope has developed a new device that is so exciting he is considering quitting his job in order to produce and market it on a large-scale basis. Bill will rent a garage for \$300 per month for production purposes. Utilities will cost \$40 per month. Bill has already taken an industrial design course at the local community college to help prepare for this venture. The course cost \$300. Bill will rent production equipment at a monthly cost of \$800. He estimates the material cost per unit will be \$5, and the labour cost will be \$3. He will hire workers and spend his time promoting the product. To do this, he will quit his job, which pays \$3,000 per month. Advertising and promotion will cost \$900 per month.

Required:

Complete the chart below by placing an "X" under each heading that helps to identify the cost involved. You can place an "X" under more than one heading for a single cost: for example, a cost may be a sunk cost, an overhead cost, and a product cost; you would place an "X" under each of these headings opposite the cost.

*** Between the alternatives of going into business to make the device or not going into business to make the device. See column heading "Differential Cost".**

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Mfg. Overhead | Product Cost | Selling Cost | Differential Cost* |
|--------------------------------------|------------------|-----------|---------------|------------|---------------|--------------|--------------|--------------------|
| Garage rent | | | | | | | | |
| Utilities | | | | | | | | |
| Cost of the industrial design course | | | | | | | | |
| Equipment rented | | | | | | | | |
| Material cost | | | | | | | | |
| Labor cost | | | | | | | | |
| Present salary | | | | | | | | |
| Advertising | | | | | | | | |

* Between the alternatives of going into business to make the device or not going into business to make the device.

93. Logan Products, a small manufacturer, has submitted the items below concerning last year's operations. The president's secretary, trying to be helpful, has alphabetized the list.

| | |
|--------------------------------------|----------|
| Administrative salaries | \$2,400 |
| Advertising expense | \$1,200 |
| Depreciation—factory building | \$800 |
| Depreciation—factory equipment | \$1,600 |
| Depreciation—office equipment | \$180 |
| Direct labour cost | \$21,900 |
| Raw materials inventory, beginning | \$2,100 |
| Raw materials inventory, ending | \$3,200 |
| Finished goods inventory, beginning | \$46,980 |
| Finished goods inventory, ending | \$44,410 |
| General liability insurance expense | \$240 |
| Indirect labour cost | \$11,800 |
| Insurance on factory | \$1,400 |
| Purchases of raw materials | \$14,600 |
| Repairs and maintenance of factory | \$900 |
| Sales salaries | \$2,000 |
| Taxes on factory | \$450 |
| Travel and entertainment expense | \$1,410 |
| Work-in-process inventory, beginning | \$1,670 |
| Work-in-process inventory, ending | \$1,110 |

Required:

a.) Prepare a schedule of cost of goods manufactured in good form for the year.

b.) Determine the cost of goods sold for the year.

94. Laco Company acquired its factory building about 20 years ago. For a number of years, the company has rented out a small, unused part of the building. The renter's lease will expire soon. Rather than renewing the lease, Laco Company is considering using the space itself to manufacture a new product. Under this option, the unused space will continue to be depreciated on a straight-line basis, as in past years.

Direct materials and direct labour cost for the new product is \$50 per unit. In order to store finished units of the new product, the company will rent a small warehouse nearby. The rental cost is \$2,000 per month. It will cost the company an additional \$4,000 each month to advertise the new product. A new production supervisor, hired to oversee production of the new product, will be paid \$3,000 per month. The company will pay a sales commission of \$10 for each unit of product that is sold.

Required:

Complete the chart below by placing an "X" under each column heading that helps to identify the costs listed to the left. You can place an "X" under more than one heading for a single cost: for example, a cost may be a product cost, an opportunity cost, and a sunk cost; you would place an "X" under each of these headings on the answer sheet opposite the cost.

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Product Cost | Selling & Admin Cost | Differential Cost* |
|------------------------------------|---------------------|--------------|------------------|---------------|-----------------|-------------------------|-----------------------|
| Rent on unused factory space | | | | | | | |
| Depreciation on the factory space | | | | | | | |
| Direct material and direct labor | | | | | | | |
| Rental cost of the small warehouse | | | | | | | |
| Advertising cost | | | | | | | |
| Production supervisor's salary | | | | | | | |
| Sales commissions | | | | | | | |

*Between the alternatives of (1) renting the space out again or (2) using the space to produce the new product. See column heading "Differential Cost".

95. The accounts for a manufacturing company for an accounting period are listed below. Find the unknown amounts indicated by question marks.

| | |
|---------------------------------------|----------|
| Sales | \$39,000 |
| Cost of goods sold | ? |
| Purchases of direct materials | \$11,000 |
| Direct labour | \$5,000 |
| Finished goods inventory, beginning | \$5,000 |
| Work in process, beginning | \$800 |
| Work in process, ending | \$3,000 |
| Gross margin | \$11,700 |
| Finished goods inventory, ending | ? |
| Accounts payable, beginning | \$4,000 |
| Accounts payable, ending | \$2,800 |
| Direct materials inventory, beginning | \$1,000 |
| Direct materials inventory, ending | \$3,000 |
| Indirect labour | \$2,000 |
| Indirect materials used | \$4,000 |
| Utilities expense, factory | \$3,000 |
| Depreciation on factory equipment | \$7,000 |

96. Use the following information to determine the gross margin for Pacific States Manufacturing for the year just ended (all amounts are in thousands of dollars):

| | |
|-----------------------------------|----------|
| Sales | \$31,800 |
| Purchases of direct materials | \$7,000 |
| Direct labour | \$5,000 |
| Work-in-process inventory, 1/1 | \$800 |
| Work-in-process inventory, 12/31 | \$3,000 |
| Finished goods inventory, 1/1 | \$4,000 |
| Finished goods inventory, 12/31 | \$5,300 |
| Accounts payable, 1/1 | \$1,700 |
| Accounts payable, 12/31 | \$1,500 |
| Direct materials inventory, 1/1 | \$6,000 |
| Direct materials inventory, 12/31 | \$1,000 |
| Indirect labour | \$600 |
| Indirect materials used | \$500 |
| Utilities factory | \$1,900 |
| Depreciation on factory equipment | \$3,500 |

97. The following information is from Marchant Manufacturing Co. for September:

| | |
|-------------------------------------|-----------|
| Direct materials used in production | \$95,000 |
| Direct labour | \$67,000 |
| Total manufacturing cost | \$234,000 |
| Raw materials inventory, Sept. 1 | \$24,000 |
| Work-in-process inventory, Sept. 1 | \$6,000 |
| Finished goods inventory, Sept. 1 | \$101,000 |
| Purchases of raw materials | \$102,000 |
| Cost of goods manufactured | \$233,000 |
| Administrative expense | \$41,000 |
| Selling expense | \$56,000 |
| Sales | \$344,000 |
| Gross margin | \$127,000 |
| Net income | \$30,000 |

Required:

- (a.) Compute the cost of goods sold.
- (b.) Compute the balance in finished goods inventory at September 30.
- (c.) Compute the balance in work-in-process inventory at September 30.
- (d.) Compute the balance in raw materials inventory at September 30.
- (e.) Compute the total manufacturing overhead.

(Hint: The easiest method of solving this problem is to sketch out the income statement and the schedule of cost of goods manufactured, enter the given amounts, and then enter the unknowns as plug figures.)

98. The following data (in thousands of dollars) have been taken from the accounting records of Larsen Corporation for the year just ended:

| | |
|--------------------------------------|-------|
| Sales | \$860 |
| Purchases of raw materials | \$150 |
| Direct labour | \$110 |
| Manufacturing overhead | \$210 |
| Administrative expenses | \$130 |
| Selling expenses | \$180 |
| Raw materials inventory, beginning | \$40 |
| Raw materials inventory, ending | \$80 |
| Work-in-process inventory, beginning | \$20 |
| Work-in-process inventory, ending | \$80 |
| Finished goods inventory, beginning | \$80 |
| Finished goods inventory, ending | \$150 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
- (b.) Compute the cost of goods sold.
- (c.) Using data from your answers above as needed, prepare an income statement in good form.

99. The following data (in thousands of dollars) have been taken from the accounting records of Lerner Corporation for the year just completed:

| | |
|--------------------------------------|-------|
| Sales | \$870 |
| Purchases of raw materials | \$110 |
| Direct labour | \$130 |
| Manufacturing overhead | \$200 |
| Administrative expenses | \$160 |
| Selling expenses | \$140 |
| Raw materials inventory, beginning | \$30 |
| Raw materials inventory, ending | \$60 |
| Work-in-process inventory, beginning | \$50 |
| Work-in-process inventory, ending | \$10 |
| Finished goods inventory, beginning | \$150 |
| Finished goods inventory, ending | \$140 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
- (b.) Compute the cost of goods sold.
- (c.) Using data from your answers above as needed, prepare an income statement in good form.

100. The following data (in thousands of dollars) have been taken from the accounting records of Larmont Corporation for the year just completed:

| | |
|--------------------------------------|-------|
| Sales | \$990 |
| Purchases of raw materials* | \$100 |
| Direct labour | \$240 |
| Indirect labour | \$100 |
| Indirect Material | \$10 |
| Other Factory Overhead | \$100 |
| Administrative expenses | \$100 |
| Selling expenses | \$140 |
| Raw materials inventory, beginning* | \$20 |
| Raw materials inventory, ending* | \$80 |
| Work-in-process inventory, beginning | \$50 |
| Work-in-process inventory, ending | \$30 |
| Finished goods inventory, beginning | \$160 |
| Finished goods inventory, ending | \$150 |

*Raw Materials consist of both direct and indirect materials.

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
- (b.) Compute the cost of goods sold.
- (c.) Using data from your answers above as needed, prepare an income statement in good form.

101. The following costs relate to one month's activity in Martin Company:

| | |
|--------------------------------------|---------|
| Indirect materials | \$300 |
| Rent on factory building | \$500 |
| Maintenance of equipment | \$50 |
| Direct material used | \$1,200 |
| Utilities on factory | \$250 |
| Direct labour | \$1,500 |
| Selling expense | \$500 |
| Administrative expense | \$300 |
| Work-in-process inventory, beginning | \$600 |
| Work-in-process inventory, ending | \$800 |
| Finished goods inventory, beginning | \$500 |
| Finished goods inventory, ending | \$250 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
- (b.) Determine the cost of goods sold.

102. Brooke Foster is employed by Wong Laboratories, Inc., and is directly involved in preparing and packaging the company's leading sleep aid, RestWell. Brooke's basic wage rate is \$15 per hour, and she is paid time-and-a-half for any work in excess of 40 hours per week. Additionally, Wong Laboratories provides a fringe benefit package that costs the company \$5 for each hour of employee time (regular or overtime). During a recent week, Brooke worked 49 hours but was idle for 3 hours due to materials shortages.

Required:

(a.) Assume that Wong Laboratories treats all fringe benefits as part of manufacturing overhead. Compute Brooke's total wages and fringe benefits for the week and indicate how much of her wages and fringe benefits for the week would be allocated to direct labour and how much would be allocated to manufacturing overhead.

(b.) Assume that Wong Laboratories treats the part of fringe benefits related to direct labour as a component of direct labour cost. Compute Brooke's total wages and fringe benefits for the week and indicate how much of her wages and fringe benefits would be allocated to direct labour and how much would be allocated to manufacturing overhead.

103. Fred Adams is employed by the Cedar Manufacturing Company on their assembly line. Fred is paid \$15 per hour for regular time, and time-and-a-half for all work in excess of 40 hours per week. During the two weeks of the pay period just completed, Fred reported the following:

Week 1:
Idle time due to machine breakdowns 3 hours
Idle time due to material shortages 2 hours
Overtime None

Week 2:
Idle time None
Overtime 9 hours

Required:

Compute Fred's wages for each week and allocate Fred's wages for each week between direct labour cost and manufacturing overhead.

104. The following inventory and cost data for the just completed year are taken from the accounting records of Sankar Company:

| | |
|---------------------------------|-----------|
| Inventories | |
| Increase in raw materials | \$4,000 |
| Increase in work in process | 30,000 |
| Decrease in finished goods | 90,000 |
| Costs incurred | |
| Advertising expense | \$200,000 |
| Direct labour cost | 180,000 |
| Purchases of raw materials | 264,000 |
| Rent, factory building | 60,000 |
| Indirect factory labour | 112,600 |
| Sales commissions | 70,000 |
| Utilities, factory | 18,000 |
| Maintenance, factory equipment | 48,000 |
| Supplies, factory | 1,400 |
| Depreciation, office equipment | 16,000 |
| Depreciation, factory equipment | 80,000 |

Required:

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

105. The following selected account balances for the year ended December 31 are provided for Amita

Company:

| | |
|-------------------------------------|-----------|
| Purchases of raw materials | \$260,000 |
| Direct labour | 65,000 |
| Maintenance, factory | 74,000 |
| Selling and administrative salaries | 179,000 |
| Depreciation, factory equipment | 110,000 |
| Cleaning supplies | 6,000 |
| Sales commissions | 350,000 |
| Utilities, factory building | 52,000 |
| Rent, factory | 90,000 |
| Depreciation, sales equipment | 80,000 |
| Insurance, factory equipment | 8,000 |
| Advertising expense | 300,000 |

In addition, you have the following information about inventories during the year:

| | |
|-----------------------------|------------------------|
| Increase in raw materials | \$10,000 |
| Decrease in work in process | \$15,000 |
| Beginning finished goods | \$30,000 (1,000 units) |
| Ending finished goods | \$? (3,400 units) |
| Equivalent units produced | \$? (27,600 units) |

Assume the company uses FIFO.

Required:

- Calculate the cost of the 27,600 equivalent units that were produced during the year.
- Calculate the cost of the ending finished goods inventory.
- Calculate the cost of goods sold.

106. Mary Tappin, an assistant Vice President at Galaxy Toys, was disturbed to find on her desk a memo from her boss, Gary Resnick, to the controller of the company. The memo appears below:

Galaxy Toys Internal Memo

Sept 15

To: Harry Wilson, Controller

Fm: Gary Resnick, Executive Vice President

As you know, we won't start recording many sales until October when stores start accepting shipments from us for the Christmas season. Meanwhile, we are producing flat-out and are building up our finished goods inventories so that we will be ready to ship next month.

Unfortunately, we are in a bind right now since it looks like the net income for the quarter ending on Sept 30 is going to be pretty awful. This may get us in trouble with the bank since they always review the quarterly financial reports and may call in our loan if they don't like what they see. Is there any possibility that we could change the classification of some of our period costs to product costs--such as the rent on the finished goods warehouse?

Please let me know as soon as possible. The President is pushing for results.

Mary didn't know what to do about the memo. It wasn't intended for her, but its contents were alarming.

Required:

- a. Why has Gary Resnick suggested reclassifying some period costs as product costs?
- b. Why do you think Mary was alarmed about the memo?

107. For the majority of manufacturing companies, the distinction between period costs and product costs is essential because of its effect on net income for a period. Failure to make the distinction can affect the cost of goods manufactured and cost of goods sold.

Required:

Would the need to make the distinction between product costs and period costs still be essential if a manufacturing company were to adopt the just-in-time technique in the lean thinking model? Explain.

108. Manufacturing overhead is one of the three elements of manufacturing costs. Unlike direct materials and direct labour costs, assigning manufacturing overhead cost to products can be a very difficult task.

Required:

Do you agree with this aspect of manufacturing overhead? Why or why not?

109. Assume, as discussed in the chapter, actual manufacturing costs (that is, direct material used, direct labour, and manufacturing overhead) are charged to products in calculating the cost of goods manufactured.

Required:

As a manager, explain some of the potential problems such a system may give you.

Chapter 02 Cost Terms, Concepts, and Classifications **Key**

1. What would be the classification of corporate controller's salary?

- A. Manufacturing cost.
- B. Product cost.
- C. Administrative cost.
- D. Selling cost.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #1

Learning Objective: 2

2. How should the cost of the fire insurance for a manufacturing plant be classified?

- A. Prime cost
- B. Product cost.
- C. Period cost.
- D. Variable cost.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #2

Learning Objective: 1

3. How would the cost of rent for a manufacturing plant generally be classified?

- A. A product cost but **not** a prime cost.
- B. **Neither** a product nor prime Cost.
- C. A prime cost but **not** a product cost.
- D. Both a prime cost and product cost.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #3

Learning Objective: 1

Learning Objective: 2

4. For a lamp manufacturing company, the cost of the insurance on its vehicles that deliver lamps to customers is best described as a:

- A. Prime cost.
- B. Manufacturing overhead cost.
- C. Period cost.
- D. Differential cost of a lamp.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #4

Learning Objective: 2

5. For a manufacturing company, which of the following is an example of a period rather than a product cost?
- A. Depreciation of factory equipment.
 - B.** Wages of salespersons.
 - C. Wages of machine operators.
 - D. Insurance on factory equipment.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #5

Learning Objective: 2

6. Which of the following would be considered a product cost for external financial reporting purposes?
- A. Cost of a warehouse used to store finished goods.
 - B. Cost of guided public tours through the company's facilities.
 - C. Cost of travel necessary to sell the manufactured product.
 - D.** Cost of sand spread on the factory floor to absorb oil from manufacturing machines.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #6

Learning Objective: 2

7. Which of the following would **not** be treated as a product cost for external financial reporting purposes?

- A. Depreciation on a factory building.
- B. Salaries of factory workers.
- C. Indirect labour in the factory.
- D. Advertising expenses.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #7

Learning Objective: 2

8. What would be the classification of the transportation costs incurred by a manufacturing company to ship its product to its customers?

- A. Product cost.
- B. Manufacturing overhead.
- C. Period cost.
- D. Administrative cost.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #8

Learning Objective: 2

9. The advertising costs incurred by Pepsi to air its commercials during the hockey season can best be described as a:
- A. Variable cost.
 - B.** Fixed cost.
 - C. Prime cost.
 - D. Conversion cost.

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #9

Learning Objective: 2

Learning Objective: 5

10. Micro Computer Company has set up a toll-free telephone line for customer inquiries regarding computer hardware produced by the company. How would the cost of this toll-free line be classified?
- A. Product cost.
 - B. Manufacturing overhead.
 - C. Direct labour.
 - D.** Period cost.

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #10

Learning Objective: 2

11. How would the wages of factory maintenance personnel usually be classified?
- A. Direct labour and manufacturing overhead.
 - B.** Indirect labour and manufacturing overhead.
 - C. Direct labour and period cost.
 - D. Indirect labour and period cost

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #11

Learning Objective: 2

Learning Objective: 6

12. Prime costs consist of:
- A. Direct Labour and Manufacturing Overhead.
 - B.** Direct Material and Direct Labour.
 - C. Direct Material and Manufacturing overhead.
 - D. Direct Material, Direct Labour and Manufacturing Overhead.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #12

Learning Objective: 1

Learning Objective: 2

13. What does manufacturing overhead cost consist of?
- A. All manufacturing costs.
 - B.** All manufacturing costs, EXCEPT direct materials and direct labour.
 - C. Indirect materials but NOT indirect labour.
 - D. Indirect labour but NOT indirect materials.

Blooms Level: Understand

14. Which of the following should **NOT** be included as part of manufacturing overhead at a company that makes office furniture?

- A. Sheet steel in a file cabinet made by the company.
- B. Manufacturing equipment depreciation.
- C. Idle time for direct labour.
- D. Taxes on a factory building.

15. Rossiter Company failed to record a credit sale at the end of the year, although the reduction in finished goods inventories was correctly recorded when the goods were shipped to the customer. Which one of the following statements is correct?

- A. Accounts receivable was not affected, inventory was not affected, sales were understated, and cost of goods sold was understated.
- B. Accounts receivable was understated, inventory was overstated, sales were understated, and cost of goods sold was overstated.
- C. Accounts receivable was not affected, inventory was understated, sales were understated, and cost of goods sold was understated.
- D. Accounts receivable was understated, inventory was not affected, sales were understated, and cost of goods sold was not affected.

16. What is the outcome if the cost of goods sold is greater than the cost of goods manufactured?
- A. Work-in-process inventory has decreased during the period.
 - B. Finished goods inventory has increased during the period.
 - C. Total manufacturing costs must be greater than cost of goods manufactured.
 - D. Finished goods inventory has decreased during the period.

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #16

Learning Objective: 3

Learning Objective: 4

17. Last month, when 10,000 units of a product were manufactured, the cost per unit was \$60. At this level of activity, variable costs were 50% of total unit costs. If 10,500 units are manufactured next month and cost behaviour patterns remain unchanged, how will costs be affected?
- A. Total variable costs will remain unchanged.
 - B. Fixed costs will increase in total.
 - C. Variable cost per unit will increase.
 - D. Total cost per unit will decrease.

The average cost per unit will decrease as activity increases due to the presence of fixed costs. Refer to page 45 of text.

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #17

Learning Objective: 5

18. Which of the following statements regarding variable cost is true?
- A. Variable cost increases on a per unit basis as the number of units produced increases.
 - B. Variable cost remains constant on a per unit basis as the number of units produced increases.**
 - C. Variable cost remains the same in total as production increases.
 - D. Variable cost decreases on a per unit basis as the number of units produced increases.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #18

Learning Objective: 5

19. Within the relevant range, what is the difference between variable costs and fixed costs?
- A. Variable costs per unit fluctuate and fixed costs per unit remain constant.
 - B. Variable costs per unit are constant and fixed costs per unit fluctuate.**
 - C. Total variable costs and total fixed costs are constant.
 - D. Total variable costs and total fixed costs fluctuate.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #19

Learning Objective: 5

20. The Zellers store in your home town is one of many Zeller's department stores across the province. Some of the costs associated with the store in your home town last month appear below:

| | |
|-----------------------------------|----------|
| Shoe Department Cost of Sales | \$80,000 |
| Other Department Salaries | 62,000 |
| Store Managers Salary | 14,000 |
| Shoe Department Sales Commissions | 8,000 |
| Store Utilities | 13,000 |
| Shoe Department Manager's Salary | 9,000 |
| Store Lease Cost | 11,000 |
| Store Janitorial Costs | 11,000 |
| Other Store Costs | 98,000 |

The Shoe Department is one of many departments in the home town store. The direct costs of the Shoe Department total:

- A. \$80,000
- B. \$88,000
- C. \$97,000
- D. \$108,000

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #20

Learning Objective: 6

21. Which of the following best defines an opportunity cost?

- A. The difference in total costs from selecting one alternative instead of another.
- B. The benefit forgone by selecting one alternative instead of another.
- C. A cost that may be saved by NOT adopting an alternative.
- D. A cost that may be shifted to the future with little or no effect on current operations.

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #21

Learning Objective: 6

22. To what does the term differential cost refer?

- A. A difference in cost that results from selecting one alternative instead of another.
- B. The benefit forgone by selecting one alternative instead of another.
- C. A cost that does not entail any dollar outlay, but which is relevant to the decision-making process.
- D. A cost that continues to be incurred even though there is no activity.

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #22

Learning Objective: 6

23. Which of the following costs is often important in decision making, but is omitted from conventional accounting records?

- A. Fixed cost.
- B. Sunk cost.
- C. Opportunity cost.
- D. Indirect cost.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #23

Learning Objective: 6

24. When a decision is made among a number of alternatives, the benefit that is lost by choosing one alternative over another is called what?
- A. Realized cost.
 - B. Opportunity cost.**
 - C. Conversion cost.
 - D. Accrued cost.

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #24

Learning Objective: 6

25. What does conversion cost consist of?
- A. Manufacturing overhead cost.
 - B. Direct materials and direct labour cost.
 - C. Direct labour cost.
 - D. Direct labour and manufacturing overhead cost.**

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #25

Learning Objective: 1

Learning Objective: 6

26. Prime cost consists of direct materials and what?
- A. Direct labour.**
 - B. Manufacturing overhead.
 - C. Indirect materials.
 - D. Cost of goods manufactured.

Blooms Level: Remember

27. Which one of the following costs should NOT be considered a direct cost of serving a particular customer who orders a customized personal computer by phone directly from the manufacturer?
- A. The cost of the hard disk drive installed in the computer.
 - B. The cost of shipping the computer to the customer.
 - C. The cost of leasing a machine on a monthly basis that automatically tests hard disk drives before they are installed in computers.
 - D. The cost of packaging the computer for shipment.

28. Which one of the following costs should NOT be considered an indirect cost of serving a particular customer at a Dairy Queen fast food outlet?
- A. The cost of the hamburger patty in the burger the customer ordered.
 - B. The wages of the employee who takes the customer's order.
 - C. The cost of heating and lighting the kitchen.
 - D. The salary of the outlet's manager.

29. Green Company's costs for the month of August are as follows:

| | |
|---------------------------------------|----------|
| Direct materials used | \$27,000 |
| Direct labour | \$34,000 |
| Sales salaries | \$14,000 |
| Indirect labour | \$10,000 |
| Indirect materials | \$15,000 |
| General corporate administrative cost | \$12,000 |
| Taxes on manufacturing facility | \$2,000 |
| Rent on factory | \$17,000 |

The beginning work-in-process inventory is \$16,000 and the ending work-in-process inventory is \$9,000. What is the cost of goods manufactured for the month?

- A. \$105,000
- B. \$132,000
- C. \$138,000
- D. \$112,000

DM + DL + MOH + WIP B.I. - WIP E.I.

27,000 + 34,000 + 10,000 + 15,000 + 2,000 + 17,000 + 16,000 - 9,000

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #29

Learning Objective: 4

30. A manufacturing company prepays its insurance coverage for a three-year period. The premium for the three years is \$2,700 and is paid at the beginning of the first year. Eighty percent of the premium applies to manufacturing operations and 20% applies to selling and administrative activities. What amounts should be considered product costs and period costs respectively for the first year of coverage?

| | <u>Product Costs</u> | <u>Period Costs</u> |
|----|----------------------|---------------------|
| A) | \$2,700 | \$0 |
| B) | \$2,160 | \$540 |
| C) | \$1,440 | \$360 |
| D) | \$720 | \$180 |

- A. Option A
B. Option B
C. Option C
D. Option D

$\$2,700/3 * 80\%$ and 20%

Blooms Level: Analyze
Difficulty: Medium
Garrison - Chapter 02 #30
Learning Objective: 2

31. You have the following data:

| | |
|----------------------------|------|
| Cost of goods sold | \$70 |
| Direct labour | \$20 |
| Direct materials | \$15 |
| Cost of goods manufactured | \$80 |
| Work-in-process ending | \$10 |
| Finished goods ending | \$15 |
| Manufacturing overhead | \$30 |

Which of the following represents the beginning work-in-process inventory?

- A. \$20.
- B. \$15.
- C. \$55.
- D. \$25.

$$\text{CGM} + \text{EI} - \text{Manufacturing Costs} = 80 + 10 - (15 + 20 + 30)$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #31

Learning Objective: 4

32. During the month of May, Bennett Manufacturing Company purchases \$43,000 of raw materials. The manufacturing overhead totals \$27,000 and the total manufacturing costs are \$106,000. Assuming a beginning inventory of raw materials of \$8,000 and an ending inventory of raw materials of \$6,000, what must be the total for direct labour?

A. \$34,000.

B. \$38,000.

C. \$36,000.

D. \$45,000.

DM used = 8,000 + 43,000 - 6,000 = \$45,000

DL = 106,000 - 45,000 - 27,000

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #32

Learning Objective: 4

33. You are given the following data for January:

| | |
|-------------------------------------|----------|
| Direct materials | \$38,000 |
| Direct labour | \$24,000 |
| Manufacturing overhead | \$17,000 |
| Beginning work in process inventory | \$10,000 |
| Ending work in process inventory | \$11,000 |

Which of the following is the cost of goods manufactured?

- A. \$89,000.
- B. \$78,000.
- C. \$79,000.
- D. \$80,000.

$$38,000 + 24,000 + 17,000 + 10,000 - 11,000$$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #33

Learning Objective: 4

34. During the month of June, Reardon Company incurs \$17,000 of direct labour and \$8,500 of manufacturing overhead, and purchases \$15,000 of raw materials. Between the beginning and the end of the month, the raw-materials inventory increases by \$2,000, the finished goods inventory increases by \$1,500, and the work-in-process inventory decreases by \$3,000. What is the cost of goods manufactured?

A. \$38,500.

B. \$40,500.

C. \$41,500.

D. \$43,500.

| | |
|--------------------|--------------|
| RM Purchased | 15,000 |
| - Increase in Inv. | <u>2,000</u> |
| RM used | 13,000 |
| + DL | 17,000 |
| + OH | <u>8,500</u> |
| Total Man. Costs | 38,500 |
| + Decrease in Inv. | <u>3,000</u> |
| C.G.M. | 41,500 |

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #34

Learning Objective: 4

35. Mueller Company reports the following data for the year just ended:

| | |
|----------------------------------|-------------|
| Raw materials used in production | \$800,000 |
| Direct labour | \$700,000 |
| Total overhead costs | \$900,000 |
| Ending work-in-process inventory | \$400,000 |
| Cost of goods manufactured | \$2,500,000 |

What was the beginning work-in-process inventory?

- A. \$300,000.
- B. \$500,000.
- C. \$1,300,000.
- D. \$100,000.

C.G.M. + E.I. - Man. Costs

$$2,500,000 + 400,000 - 800,000 - 700,000 - 900,000 = \$500,000$$

Blooms Level: Analyze
Difficulty: Medium
Garrison - Chapter 02 #35
Learning Objective: 4

36. Williams Company's direct labour cost is 25% of its conversion cost. If the manufacturing overhead cost for the last period is \$45,000 and the direct materials cost is \$25,000, what is the direct labour cost?

A. \$15,000.

B. \$60,000.

C. \$33,333.

D. \$20,000.

Let $x = \text{CC}$ (conversion costs)

$\text{CC} = \text{DL} + \text{OH}$

$x = .25x + 45,000$

$x = 60,000$ Therefore $\text{DL } 60,000 \times .25 = 15,000$

Text Reference: page 32

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #36

Learning Objective: 1

Learning Objective: 6

37. The Lyons Company's cost of goods manufactured was \$120,000 when its sales were \$360,000 and its gross margin was \$220,000. If the ending inventory of finished goods was \$30,000, what was the beginning inventory of finished goods?

A. \$20,000.

B. \$50,000.

C. \$110,000.

D. \$150,000.

$CGS = Sales - \text{gross margin}$. $B.I. = CGS + E.I. - CGM$

$CGS = 140,000$; $B.I. = 140,000 + 30,000 - 120,000 = \$50,000$

Blooms Level: Analyze

Difficulty: Hara

Garrison - Chapter 02 #37

Learning Objective: 3

38. The gross margin for Cushing Company for the first quarter of last year was \$325,000 when sales were \$700,000. The beginning inventory of finished goods was \$60,000, and the ending inventory of finished goods was \$85,000. What was the cost of goods manufactured for the first quarter?

A. \$375,000.

B. \$350,000.

C. \$400,000.

D. \$385,000.

$CGM = CGS + EI - BI$

$= (700,000 - 325,000) + 85,000 - 60,000 = \$400,000$

Blooms Level: Apply

Difficulty: Hara

39. Last month, a manufacturing company had the following operating results:

| | |
|------------------------------------|-----------|
| Beginning finished goods inventory | \$74,000 |
| Ending finished goods inventory | \$73,000 |
| Sales | \$464,000 |
| Gross margin | \$52,000 |

What was the cost of goods manufactured for the month?

- A. \$413,000
- B.** \$411,000
- C. \$412,000
- D. \$463,000

$$(464,000 - 52,000) + 73,000 - 73,000 = \$411,000$$

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #39

Learning Objective: 3

40. The following information was provided by Wilson Company for the year just ended:

| | |
|------------------------------------|-----------|
| Beginning finished goods inventory | \$150,750 |
| Ending finished goods inventory | \$140,475 |
| Sales | \$475,000 |
| Gross margin | \$150,000 |

What was the cost of goods manufactured for the year?

A. \$314,725.

B. \$335,275.

C. \$325,000.

D. \$464,725.

$$\text{CGM} = \text{CGS} + \text{EI} - \text{BI}$$

$$(475,000 - 150,000) + 140,475 - 150,750 = \$314,725$$

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #40

Learning Objective: 3

41. The following information was provided by Grand Company for the year just ended:

| | |
|--------------------------------------|-----------|
| Decrease in finished goods inventory | \$4,655 |
| Sales | \$500,000 |
| Gross margin | \$100,000 |

What was the cost of goods manufactured for the year?

- A. \$95,345.
- B. \$104,655.
- C. \$395,345.
- D. \$404,655.

CGM = CGS - decrease in FG inventory

$$\text{CGM} = 500,000 - 100,000 - 4,655 = \$395,345$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #41

Learning Objective: 3

42. The following inventory valuation errors were discovered by Knox Corporation's new controller just after the annual financial statements were published at the end of Year 3.

The Year 3 ending inventory was understated by \$17,000.
The Year 2 ending inventory was understated by \$61,000.
The Year 1 ending inventory was overstated by \$23,000.

The net income for Knox in each of these years was:

| | <u>Year 3</u> | <u>Year 2</u> | <u>Year 1</u> |
|------------|---------------|---------------|---------------|
| Net income | \$168,000 | \$254,000 | \$138,000 |

Assuming there were no income taxes, what was the adjusted net income in each year?

| | <u>Year 3</u> | <u>Year 2</u> | <u>Year 1</u> |
|----|---------------|---------------|---------------|
| A) | \$212,000 | \$170,000 | \$161,000 |
| B) | \$124,000 | \$338,000 | \$115,000 |
| C) | \$90,000 | \$338,000 | \$161,000 |
| D) | \$124,000 | \$170,000 | \$115,000 |

- A. Option A
B. Option B
C. Option C
D. Option D

When BI is overstated Net Income is understated. When EI is overstated Net Income is overstated.

| | |
|--------|--|
| Year 1 | NI = 138,000 - 23,000 = \$115,000 |
| Year 2 | BI is overstated by 23,000, EI understated by 61,000. NI = 254,000 + 84,000 = \$338,000 |
| Year 3 | BI is understated by 61,000, EI understated 17,000 NI = 168,000 - 61,000 + 17,000 = \$124,000 |

Blooms Level: Evaluate
Difficulty: Hard
Garrison - Chapter 02 #42
Learning Objective: 3

43. Delta Merchandising, Inc., has provided the following information for the year just ended:

| | |
|---------------------|-----------|
| Net sales | \$128,500 |
| Beginning inventory | \$24,000 |
| Purchases | \$80,000 |
| Gross margin | \$38,550 |

What was the ending inventory for the company at year-end?

- A. \$65,450.
- B. \$24,500.
- C. \$14,050.
- D. \$9,950.

$$EI = BI + \text{Purchases} - \text{CGS}$$

$$EI = 24,000 + 80,000 - (128,500 - 38,550) = \$14,050$$

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #43

Learning Objective: 3

44. The beginning balance of the raw materials inventory account for May was \$27,500. The ending balance for May was \$28,750, and \$128,900 of raw materials were used during the month. What was the cost of the materials purchased during the month?

- A. \$131,300.
- B. \$127,650.
- C. \$130,150.
- D. \$157,650.

$$\begin{aligned} \text{RM purchased} &= \text{RM used} + \text{EI} - \text{BI} \\ &= 128,900 + 28,750 - 27,500 = \$130,150 \end{aligned}$$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #44

Learning Objective: 4

45. Gabel Inc. is a merchandising company. Last month, the company's merchandise purchases totalled \$63,000. The company's beginning merchandise inventory was \$13,000, and its ending merchandise inventory was \$15,000. What was the company's cost of goods sold for the month?

- A. \$91,000.
- B. \$63,000.
- C. \$65,000.
- D. \$61,000.

$$\text{CGS} = \text{BI} + \text{Purchases} - \text{EI} = 13,000 + 63,000 - 15,000 = \$61,000$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #45

46. Haack Inc. is a merchandising company. Last month, the company's cost of goods sold was \$84,000. The company's beginning merchandise inventory was \$20,000, and its ending merchandise inventory was \$18,000. What was the total amount of the company's merchandise purchases for the month?

- A. \$86,000.
- B. \$82,000.**
- C. \$84,000.
- D. \$122,000.

$$84,000 + 18,000 - 20,000 = \$82,000$$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #46

Learning Objective: 3

47. During January, the cost of goods manufactured was \$93,000. The beginning finished goods inventory was \$16,000, and the ending finished goods inventory was \$20,000. What was the cost of goods sold for the month?

- A. \$129,000.
- B. \$89,000.**
- C. \$93,000.
- D. \$97,000.

$$16,000 + 93,000 - 20,000 = \$89,000$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #47

48. Sally Smith is employed in the production of various electronic products, and she earns \$8 per hour. She is paid time-and-a-half for work in excess of 40 hours per week. During a given week, she worked 45 hours and had no idle time. How much of her week's wages would be charged to manufacturing overhead?

A. \$60.

B. \$20.

C. \$40.

D. \$0.

$$5 \text{ hours overtime} * \$8/2 = \$20$$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #48

Learning Objective: 1

49. During the first week of April, Gillian worked a total of 50 hours assembling products and had no idle time. Gillian is paid \$15 per hour for regular time, and is paid time-and-a-half for all hours in excess of a 40-hour week. How much of Gillian's wages for the week should be charged to direct labour?

A. \$600.

B. \$225.

C. \$750.

D. \$975.

$$50 \text{ hours} * \$15/\text{hr.} = \$750$$

Blooms Level: Analyze

50. Robert Smith earns \$16 per hour assembling products. For each hour over 40 he works in a week, he is paid time-and-a-half. During a given week, he worked 45 hours and had no idle time. How much of his weekly wages would be charged to the manufacturing overhead account?

- A. \$80.
- B. \$45.
- C. \$40.
- D. \$120.

$$5 \text{ hours} * 16/2 = \$40$$

The following data (in thousands of dollars) have been taken from the accounting records of Karling Corporation for the year just ended.

| | |
|--------------------------------------|-------|
| Sales | \$990 |
| Raw materials inventory, beginning | \$40 |
| Raw materials inventory, ending | \$70 |
| Purchases of raw materials | \$120 |
| Direct labour | \$200 |
| Manufacturing overhead | \$230 |
| Administrative expenses | \$150 |
| Selling expenses | \$140 |
| Work-in-process inventory, beginning | \$70 |
| Work-in-process inventory, ending | \$50 |
| Finished goods inventory, beginning | \$120 |
| Finished goods inventory, ending | \$160 |

51. What was the cost (in thousands of dollars) of the raw materials used in production during the year?

A. \$190.

B. \$90.

C. \$150.

D. \$160.

$$40 + 120 - 70 = 90$$

Blooms Level: Analyze

Difficulty: Easy

Garrison - Chapter 02 #51

Learning Objective: 4

52. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

A. \$540.

B. \$500.

C. \$570.

D. \$590.

$$90 + 200 + 230 + 70 - 50 = 540$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #52

Learning Objective: 4

53. What was the cost of goods sold (in thousands of dollars) for the year?

A. \$700.

B. \$500.

C. \$660.

D. \$580.

$$120 + 540 - 160 = 500$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #53

Learning Objective: 3

Learning Objective: 4

54. What was the net income (in thousands of dollars) for the year?

A. \$150.

B. \$200.

C. \$490.

D. \$250.

$$\text{NI} = \text{Sales} - \text{CGS} - \text{Admin. Expenses} - \text{Selling Expenses}$$

$$= 990 - 500 - 150 - 140 = 200$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #54

Learning Objective: 3

Learning Objective: 4

The following data (in thousands of dollars) have been taken from the accounting records of Karlana Corporation for the year just ended.

| | |
|--------------------------------------|-------|
| Sales | \$910 |
| Raw materials inventory, beginning | \$80 |
| Raw materials inventory, ending | \$20 |
| Purchases of raw materials | \$100 |
| Direct labour | \$130 |
| Manufacturing overhead | \$200 |
| Administrative expenses | \$160 |
| Selling expenses | \$140 |
| Work-in-process inventory, beginning | \$40 |
| Work-in-process inventory, ending | \$10 |
| Finished goods inventory, beginning | \$130 |
| Finished goods inventory, ending | \$150 |

Garrison - Chapter 02

55. What was the cost of the raw materials used in production (in thousands of dollars) during the year?
- A. \$180.
B. \$40.
C. \$120.
D. \$160.

$$\text{RM used} = 80 + 100 - 20 = 160$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #55

Learning Objective: 4

56. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

A. \$530.

B. \$520.

C. \$500.

D. \$460.

$$\text{CGM} = \text{DM used} + \text{DL} + \text{OH} + \text{BI WIP} - \text{EI WIP}$$

$$= 160 + 130 + 200 + 40 - 10 = 520$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #56

Learning Objective: 4

57. What was the net income (in thousands of dollars) for the year?

A. \$410.

B. \$110.

C. \$40.

D. \$180.

$$\text{NI} = \text{Sales} - \text{CGS} - \text{Admin. Expenses} - \text{Selling expenses}$$

$$= 910 - (130 + 520 - 150) - 160 - 140 = 110$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #57

Learning Objective: 3

Learning Objective: 4

The following data (in thousands of dollars) have been taken from the accounting records of Karlist Corporation for the just completed year.

| | |
|--------------------------------------|-------|
| Sales | \$800 |
| Raw materials inventory, beginning | \$60 |
| Raw materials inventory, ending | \$70 |
| Purchases of raw materials | \$180 |
| Direct labour | \$100 |
| Manufacturing overhead | \$190 |
| Administrative expenses | \$110 |
| Selling expenses | \$150 |
| Work-in-process inventory, beginning | \$70 |
| Work-in-process inventory, ending | \$80 |
| Finished goods inventory, beginning | \$120 |
| Finished goods inventory, ending | \$160 |

Garrison - Chapter 02

58. What was the cost of the raw materials used in production (in thousands of dollars) during the year?

- A. \$240.
- B. \$190.
- C. \$170.
- D. \$250.

$$60 + 180 - 70 = 170$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #58

Learning Objective: 4

59. What was the cost of goods manufactured (finished) for the year (in thousands of dollars)?

A. \$450.

B. \$460.

C. \$530.

D. \$540.

$$\text{CGM} = \text{RM used} + \text{DL} + \text{OH} + \text{BI WIP} - \text{EI WIP}$$

$$= 170 + 100 + 190 + 70 - 80 = 450$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #59

Learning Objective: 4

60. What was the cost of goods sold (in thousands of dollars) for the year?

A. \$610.

B. \$410.

C. \$490.

D. \$570.

$$\text{CGS} = 120 + 450 - 160 = \$410$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #60

Learning Objective: 3

Learning Objective: 4

61. What was the Gross Margin (in thousands of dollars) for the year?

A. \$350.

B. \$130.

C. \$390.

D. \$190.

$$\text{GM} = \text{Sales} - \text{CGS} = 800 - 410$$

Blooms Level: Analyze

Difficulty: Medium

Garrison - Chapter 02 #61

Learning Objective: 3

Learning Objective: 4

The following data pertain to Harriman Company's operations during July:

| | <u>July 1</u> | <u>July 31</u> |
|---------------------------|---------------|----------------|
| Raw materials inventory | 0 | \$5,000 |
| Work-in-process inventory | ? | \$4,000 |
| Finished goods inventory | \$12,000 | ? |

| | |
|------------------------------|-----------|
| Other data: | |
| Cost of goods manufactured | \$105,000 |
| Raw materials used | \$40,000 |
| Manufacturing overhead costs | \$20,000 |
| Direct labour costs | \$39,000 |
| Gross Margin | \$100,000 |
| Sales | \$210,000 |

Garrison - Chapter 02

62. What was the beginning work-in-process inventory?

A. \$10,000.

B. \$14,000.

C. \$1,000.

D. \$4,000.

$$\begin{aligned} \text{BI WIP} &= \text{CGM} + \text{EI WIP} - \text{RM used} - \text{DL} - \text{OH} \\ &= 105,000 + 4,000 - 40,000 - 39,000 - 20,000 = 10,000 \end{aligned}$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #62

Learning Objective: 4

63. What was the ending finished goods inventory?

A. \$17,000.

B. \$12,000.

C. \$7,000.

D. \$2,000.

$$\begin{aligned} \text{EI} &= \text{BI} + \text{CGM} - \text{CGS} \\ &= 12,000 + 105,000 - (210,000 - 100,000) = 7,000 \end{aligned}$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #63

Learning Objective: 3

Bergeron Inc. reported the following data for last year:

| | |
|--------------------------------------|-------|
| Work-in-process inventory, beginning | \$100 |
| Work-in-process inventory, ending | \$150 |
| Finished goods inventory, beginning | \$180 |
| Finished goods inventory, ending | \$200 |
| Direct labour cost | \$300 |
| Direct materials cost | \$500 |
| Manufacturing overhead cost | \$400 |

Garrison - Chapter 02

64. Which of the following is the prime cost?

- A. \$900.
- B. \$800.**
- C. \$1,200.
- D. \$700.

$$\text{Prime} = \text{DM} + \text{DL} = 500 + 300 = 800$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #64

Learning Objective: 1

Learning Objective: 2

65. Which of the following is the conversion cost?

- A. \$700.
- B. \$800.
- C. \$900.
- D. \$1,200.

$$CC = DL + OH = 300 + 400 = 700$$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #65

Learning Objective: 1

Learning Objective: 2

66. Which of the following is the cost of goods manufactured?

- A. \$1,250.
- B. \$1,200.
- C. \$1,220.
- D. \$1,150.

$$\begin{aligned} CGM &= DM + DL + OH + BI - EI \\ &= 500 + 300 + 400 + 100 - 150 = \$1,150 \end{aligned}$$

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #66

Learning Objective: 4

Geneva Steel Corporation produces large sheets of heavy gauge steel. The company showed the following amounts relating to its production for the year just completed:

| | |
|-------------------------------------|-----------|
| Direct materials used in production | \$110,000 |
| Direct labour costs for the year | \$55,000 |
| Work in process, beginning | \$22,000 |
| Finished goods, beginning | \$45,000 |
| Cost of goods available for sale | \$288,000 |
| Cost of goods sold | \$238,000 |
| Work in process, ending | \$16,000 |

Garrison - Chapter 02

67. What was the balance of the finished goods inventory at the end of the year?

- A. \$95,000.
- B. \$50,000.**
- C. \$193,000.
- D. \$45,000.

$$\begin{aligned} \text{EI} &= \text{Cost of Goods Available for sale} - \text{Cost of Goods Sold} \\ &= 288,000 - 238,000 = \$50,000 \end{aligned}$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #67

Learning Objective: 3

68. What was the cost of goods manufactured for the year?

A. \$171,000.

B. \$160,000.

C. \$243,000.

D. \$244,000.

CGM = Cost of Goods Available for sale - Finished Goods B.I.

= 288,000 - 45,000 = \$243,000

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #68

Learning Objective: 3

Learning Objective: 4

69. What was the manufacturing overhead cost for the year?

A. \$84,000.

B. \$78,000.

C. \$56,000.

D. \$72,000.

Compute Total Manufacturing Costs = CGM + EI WIP - BI WIP

= 243,000 + 16,000 - 22,000 = \$237,000

Then compute manufacturing overhead = Total Man. Costs - DM - DL

Manufacturing overhead = 237,000 - 110,000 - 55,000 = \$72,000

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #69

Learning Objective: 3

Learning Objective: 4

Boardman Company reported the following data for the month of January:

| Inventories: | <u>1/1</u> | <u>1/31</u> |
|-----------------|------------|-------------|
| Raw materials | \$32,000 | \$31,000 |
| Work in process | \$18,000 | \$12,000 |
| Finished goods | \$30,000 | \$35,000 |

| Additional information: | |
|------------------------------|-----------|
| Sales revenue | \$210,000 |
| Direct labour costs | \$40,000 |
| Manufacturing overhead costs | \$70,000 |
| Selling expenses | \$25,000 |
| Administrative expenses | \$35,000 |

Garrison - Chapter 02

70. If raw materials costing \$35,000 were purchased during January, what were the total manufacturing costs for the month?

- A. \$145,000.
- B. \$144,000.
- C. \$151,000.
- D. \$146,000.

$$\text{TMC} = \text{DM used} + \text{DL} + \text{MOH}$$

$$= (32,000 + 35,000 - 31,000) + 40,000 + 70,000 = \$146,000$$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #70

Learning Objective: 4

71. Assuming that cost of goods sold for January was \$124,000, what was the net income for January?

A. \$61,000.

B. \$26,000.

C. \$51,000.

D. \$25,000.

$NI = S - CGS - \text{Selling Exp.} - \text{Admin. Exp.}$

$= 210,000 - 124,000 - 25,000 - 35,000$

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #71

Learning Objective: 3

72. Which of the following is Boardman Company's total conversion cost for January?

A. \$110,000.

B. \$170,000.

C. \$135,000.

D. \$130,000.

$CC = DL + OH = 40,000 + 70,000 = \$110,000$

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #72

Learning Objective: 2

73. Assuming that cost of goods sold for Boardman Company for January was \$140,000, what was the cost of goods manufactured for the month?
- A. \$140,000
 - B. \$135,000
 - C. \$145,000
 - D. \$139,000

$$140,000 + 35,000 - 30,000 = \$145,000$$

Blooms Level: Analyze
Difficulty: Medium
Garrison - Chapter 02 #73
Learning Objective: 3

At a sales volume of 32,000 units, CD Company's total fixed costs are \$64,000 and total variable costs are \$60,000. The relevant range is 30,000 to 55,000 units.

Garrison - Chapter 02

74. If CD Company sells 43,000 units, what is the total expected cost?
- A. \$146,000.
 - B. \$166,625.
 - C. \$144,625.
 - D. \$124,000.

$$VC/unit = \$60,000/32,000 \text{ units} = \$1.875/unit$$

$$\text{Total Cost} = VC + FC$$

$$= 43,000 * 1.875 + 64,000 = \$144,625$$

Blooms Level: Analyze
Difficulty: Hard

75. If CD Company sells 50,000 units, what is the total expected cost per unit (rounded to the nearest cent)?

- A. \$3.20.
- B. \$2.48.
- C. \$3.88.
- D. \$3.16.

$$VC/unit = 60,000/32,000 = \$1.875/unit$$

$$TC = VC + FC = 50,000 * 1.875 + 64,000 = \$157,750$$

$$\text{Expected Cost/unit} = 157,750/50,000 = 3.155 = \$3.16/unit$$

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #75

Learning Objective: 5

76. All costs incurred in a merchandising firm are considered to be period costs.

FALSE

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #76

Learning Objective: 2

77. In a manufacturing firm, depreciation is always considered a product cost for external financial reporting purposes.

FALSE

Blooms Level: Understand

Difficulty: Medium

78. In external financial reports, factory utilities costs may be included in an asset account on the balance sheet at the end of the period.

TRUE

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #78

Learning Objective: 1

79. Advertising costs are considered product costs for external financial reports since they are incurred in order to promote specific products.

FALSE

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #79

Learning Objective: 2

80. Property taxes and insurance premiums paid on a factory building are examples of manufacturing overhead.

TRUE

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #80

Learning Objective: 1

81. Manufacturing overhead combined with direct materials is known as conversion cost.

FALSE

Blooms Level: Remember

Difficulty: Easy

82. If the ending inventory of finished goods is understated, net income will be overstated.

FALSE

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #82

Learning Objective: 3

83. In a manufacturing company, goods available for sale equals the sum of the cost of goods manufactured and the beginning finished goods inventory.

TRUE

Blooms Level: Understand

Difficulty: Medium

Garrison - Chapter 02 #83

Learning Objective: 3

84. Variable costs are costs whose per unit costs vary as the activity level rises and falls.

FALSE

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #84

Learning Objective: 5

85. On a per unit basis, a fixed cost varies inversely with the level of activity.

TRUE

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #85

Learning Objective: 5

86. The following would typically be considered indirect costs of manufacturing a particular Boeing 747 to be delivered to Singapore Airlines: electricity to run production equipment, the factory manager's salary, and the cost of the General Electric jet engines installed on the aircraft.

FALSE

Blooms Level: Apply

Difficulty: Easy

Garrison - Chapter 02 #86

Learning Objective: 6

87. The following costs should be considered direct costs of providing delivery room services to a particular mother and her baby: the costs of drugs administered in the operating room, the attending physician's fees, and a portion of the liability insurance carried by the hospital to cover the delivery room.

FALSE

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #87

Learning Objective: 6

88. The following costs should be considered by a law firm to be indirect costs of defending a particular client in court: rent on the law firm's offices, the law firm's receptionist's wages, the costs of heating the law firm's offices, and the depreciation on the personal computer in the office of the attorney who has been assigned the client.

TRUE

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #88

Learning Objective: 6

89. A cost that differs from one month to another is known as a differential cost.

FALSE

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #89

Learning Objective: 7

90. Some companies classify labour fringe benefits for direct labour workers as part of the direct labour cost and some classify these costs as manufacturing overhead.

TRUE

Blooms Level: Remember

Difficulty: Easy

Garrison - Chapter 02 #90

Learning Objective: 1

91. Stony Electronics Corporation manufactures a portable radio designed for mounting on the wall of the bathroom. The following list represents some of the different types of costs incurred in the manufacture of these radios:

- 1) The plant manager's salary.
- 2) The cost of heating the plant.
- 3) The cost of heating executive offices.
- 4) The cost of printed circuit boards used in the radios.
- 5) Salaries and commissions of company salespersons.
- 6) Depreciation on office equipment used in the executive offices.
- 7) Depreciation on production equipment used in the plant.
- 8) Wages of janitorial personnel who clean the plant.
- 9) The cost of insurance on the plant building.
- 10) The cost of electricity to light the plant.
- 11) The cost of electricity to power plant equipment.
- 12) The cost of maintaining and repairing equipment in the plant.
- 13) The cost of printing promotional materials for trade shows.
- 14) The cost of solder used in assembling the radios.
- 15) The cost of telephone service for the executive offices.

Required:

Classify each of the items above as product (inventoriable) cost or period (noninventoriable) costs for the purpose of preparing external financial statements.

- 1) Product.
- 2) Product.
- 3) Period.
- 4) Product.
- 5) Period.
- 6) Period.

- 7) Product.
- 8) Product.
- 9) Product.
- 10) Product.
- 11) Product.
- 12) Product.
- 13) Period.
- 14) Product.
- 15) Period.

Blooms Level: Understand

Difficulty: Easy

Garrison - Chapter 02 #91

Learning Objective: 2

92. Bill Pope has developed a new device that is so exciting he is considering quitting his job in order to produce and market it on a large-scale basis. Bill will rent a garage for \$300 per month for production purposes. Utilities will cost \$40 per month. Bill has already taken an industrial design course at the local community college to help prepare for this venture. The course cost \$300. Bill will rent production equipment at a monthly cost of \$800. He estimates the material cost per unit will be \$5, and the labour cost will be \$3. He will hire workers and spend his time promoting the product. To do this, he will quit his job, which pays \$3,000 per month. Advertising and promotion will cost \$900 per month.

Required:

Complete the chart below by placing an "X" under each heading that helps to identify the cost involved. You can place an "X" under more than one heading for a single cost: for example, a cost may be a sunk cost, an overhead cost, and a product cost; you would place an "X" under each of these headings opposite the cost.

* Between the alternatives of going into business to make the device or not going into business to make the device. See column heading "Differential Cost".

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Mfg. Overhead | Product Cost | Selling Cost | Differential Cost* |
|--------------------------------------|------------------|-----------|---------------|------------|---------------|--------------|--------------|--------------------|
| Garage rent | | | | | | | | |
| Utilities | | | | | | | | |
| Cost of the industrial design course | | | | | | | | |
| Equipment rented | | | | | | | | |
| Material cost | | | | | | | | |
| Labor cost | | | | | | | | |
| Present salary | | | | | | | | |
| Advertising | | | | | | | | |

* Between the alternatives of going into business to make the device or not going into business to make the device.

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Mfg. Over- head | Producting Cost | Selling Cost | Differential Cost* |
|--|---------------------|--------------|------------------|---------------|-----------------------|--------------------|-----------------|-----------------------|
| Garage rent | | | | X | X | X | | X |
| Utilities | | | | X | X | X | | X |
| Cost of the industrial design course | | X | | | | | | |
| Equipment rented | | | | X | X | X | | X |
| Material cost | | | X | | | X | | X |
| Labor cost | | | X | | | X | | X |
| Present salary | X | | | | | | | X |
| Advertising | | | | X | | | X | X |

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #92

Learning Objective: 4

93. Logan Products, a small manufacturer, has submitted the items below concerning last year's operations. The president's secretary, trying to be helpful, has alphabetized the list.

| | |
|--------------------------------------|----------|
| Administrative salaries | \$2,400 |
| Advertising expense | \$1,200 |
| Depreciation—factory building | \$800 |
| Depreciation—factory equipment | \$1,600 |
| Depreciation—office equipment | \$180 |
| Direct labour cost | \$21,900 |
| Raw materials inventory, beginning | \$2,100 |
| Raw materials inventory, ending | \$3,200 |
| Finished goods inventory, beginning | \$46,980 |
| Finished goods inventory, ending | \$44,410 |
| General liability insurance expense | \$240 |
| Indirect labour cost | \$11,800 |
| Insurance on factory | \$1,400 |
| Purchases of raw materials | \$14,600 |
| Repairs and maintenance of factory | \$900 |
| Sales salaries | \$2,000 |
| Taxes on factory | \$450 |
| Travel and entertainment expense | \$1,410 |
| Work-in-process inventory, beginning | \$1,670 |
| Work-in-process inventory, ending | \$1,110 |

Required:

- a.) Prepare a schedule of cost of goods manufactured in good form for the year.
- b.) Determine the cost of goods sold for the year.

a.)

LOGAN COMPANY
Schedule of Cost of Goods Manufactured

| | | |
|--|---------------|------------------------|
| Raw materials used: | | |
| Beginning inventory | \$ 2,100 | |
| Purchases | <u>14,600</u> | |
| Available | 16,700 | |
| Less ending inventory | <u>3,200</u> | \$13,500 |
| Direct labor | | 21,900 |
| Manufacturing overhead: | | |
| Depreciation -- factory building | 800 | |
| Depreciation -- factory equipment | 1,600 | |
| Indirect labor cost | 11,800 | |
| Insurance on factory | 1,400 | |
| Repairs and maintenance | 900 | |
| Taxes on factory | <u>450</u> | <u>16,950</u> |
| Total manufacturing cost | | 52,350 |
| Add work in process inventory, beginning | | <u>1,670</u> |
| | | 54,020 |
| Less work in process inventory, ending | | <u>1,110</u> |
| Cost of goods manufactured | | <u><u>\$52,910</u></u> |

b.)

| | |
|---------------------------------------|------------------------|
| Finished goods inventory, beginning | \$46,980 |
| Cost of goods manufactured (above) | <u>52,910</u> |
| Available for sale | 99,890 |
| Less finished goods inventory, ending | <u>44,410</u> |
| Cost of goods sold | <u><u>\$55,480</u></u> |

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #93

Learning Objective: 3

Learning Objective: 4

94. Laco Company acquired its factory building about 20 years ago. For a number of years, the company has rented out a small, unused part of the building. The renter's lease will expire soon. Rather than renewing the lease, Laco Company is considering using the space itself to manufacture a new product. Under this option, the unused space will continue to be depreciated on a straight-line basis, as in past years.

Direct materials and direct labour cost for the new product is \$50 per unit. In order to store finished units of the new product, the company will rent a small warehouse nearby. The rental cost is \$2,000 per month. It will cost the company an additional \$4,000 each month to advertise the new product. A new production supervisor, hired to oversee production of the new product, will be paid \$3,000 per month. The company will pay a sales commission of \$10 for each unit of product that is sold.

Required:

Complete the chart below by placing an "X" under each column heading that helps to identify the costs listed to the left. You can place an "X" under more than one heading for a single cost: for example, a cost may be a product cost, an opportunity cost, and a sunk cost; you would place an "X" under each of these headings on the answer sheet opposite the cost.

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Product Cost | Selling & Administrative Cost | Differential Cost* |
|------------------------------------|------------------|-----------|---------------|------------|--------------|-------------------------------|--------------------|
| Rent on unused factory space | | | | | | | |
| Depreciation on the factory space | | | | | | | |
| Direct material and direct labor | | | | | | | |
| Rental cost of the small warehouse | | | | | | | |
| Advertising cost | | | | | | | |
| Production supervisor's salary | | | | | | | |
| Sales commissions | | | | | | | |

*Between the alternatives of (1) renting the space out again or (2) using the space to produce the new product. See column heading "Differential Cost".

| | Opportunity Cost | Sunk Cost | Variable Cost | Fixed Cost | Product Cost | Selling & Administrative Cost | Differential Cost* |
|------------------------------------|------------------|-----------|---------------|------------|--------------|-------------------------------|--------------------|
| Rent on unused factory space | X | | | | | | \$ |
| Depreciation on the factory space | | X | | X | X | | |
| Direct material and direct labor | | | X | | X | | X |
| Rental cost of the small warehouse | | | | X | | X | X |
| Advertising cost | | | | X | | X | X |
| Production supervisor's salary | | | | X | X | | X |
| Sales commissions | | | X | | | X | X |

Blooms Level: Analyze
 Difficulty: Medium
 Garrison - Chapter 02 #94
 Learning Objective: 2
 Learning Objective: 7

95. The accounts for a manufacturing company for an accounting period are listed below. Find the unknown amounts indicated by question marks.

| | |
|---------------------------------------|----------|
| Sales | \$39,000 |
| Cost of goods sold | ? |
| Purchases of direct materials | \$11,000 |
| Direct labour | \$5,000 |
| Finished goods inventory, beginning | \$5,000 |
| Work in process, beginning | \$800 |
| Work in process, ending | \$3,000 |
| Gross margin | \$11,700 |
| Finished goods inventory, ending | ? |
| Accounts payable, beginning | \$4,000 |
| Accounts payable, ending | \$2,800 |
| Direct materials inventory, beginning | \$1,000 |
| Direct materials inventory, ending | \$3,000 |
| Indirect labour | \$2,000 |
| Indirect materials used | \$4,000 |
| Utilities expense, factory | \$3,000 |
| Depreciation on factory equipment | \$7,000 |

Cost of goods sold = $\$39,000 - \$11,700 = \$27,300$.

Direct materials used = $\$1,000 + \$11,000 - \$3,000 = \$9,000$.

Cost of goods manufactured = $\$9,000 + \$5,000 + (\$2,000 + \$4,000 + \$3,000 + \$7,000) + \$800 - \$3,000 = \$27,800$.

Finished goods inventory, ending = $\$5,000 + \$27,800 - \$27,300 = \$5,500$.

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #95

Learning Objective: 3

Learning Objective: 4

96. Use the following information to determine the gross margin for Pacific States Manufacturing for the year just ended (all amounts are in thousands of dollars):

| | |
|-----------------------------------|----------|
| Sales | \$31,800 |
| Purchases of direct materials | \$7,000 |
| Direct labour | \$5,000 |
| Work-in-process inventory, 1/1 | \$800 |
| Work-in-process inventory, 12/31 | \$3,000 |
| Finished goods inventory, 1/1 | \$4,000 |
| Finished goods inventory, 12/31 | \$5,300 |
| Accounts payable, 1/1 | \$1,700 |
| Accounts payable, 12/31 | \$1,500 |
| Direct materials inventory, 1/1 | \$6,000 |
| Direct materials inventory, 12/31 | \$1,000 |
| Indirect labour | \$600 |
| Indirect materials used | \$500 |
| Utilities factory | \$1,900 |
| Depreciation on factory equipment | \$3,500 |

Direct materials used = $\$6,000 + \$7,000 - \$1,000 = \$12,000$.

Cost of goods manufactured = $\$12,000 + \$5,000 + (\$600 + \$500 + \$1,900 + \$3,500) + \$800 - \$3,000 = \$21,300$.

Cost of goods sold = $\$4,000 + \$21,300 - \$5,300 = \$20,000$.

Gross margin = $\$31,800 - \$20,000 = \$11,800$.

Blooms Level: Apply

Difficulty: Hard

Garrison - Chapter 02 #96

Learning Objective: 3

Learning Objective: 4

97. The following information is from Marchant Manufacturing Co. for September:

| | |
|-------------------------------------|-----------|
| Direct materials used in production | \$95,000 |
| Direct labour | \$67,000 |
| Total manufacturing cost | \$234,000 |
| Raw materials inventory, Sept. 1 | \$24,000 |
| Work-in-process inventory, Sept. 1 | \$6,000 |
| Finished goods inventory, Sept. 1 | \$101,000 |
| Purchases of raw materials | \$102,000 |
| Cost of goods manufactured | \$233,000 |
| Administrative expense | \$41,000 |
| Selling expense | \$56,000 |
| Sales | \$344,000 |
| Gross margin | \$127,000 |
| Net income | \$30,000 |

Required:

- Compute the cost of goods sold.
- Compute the balance in finished goods inventory at September 30.
- Compute the balance in work-in-process inventory at September 30.
- Compute the balance in raw materials inventory at September 30.
- Compute the total manufacturing overhead.

(Hint: The easiest method of solving this problem is to sketch out the income statement and the schedule of cost of goods manufactured, enter the given amounts, and then enter the unknowns as plug figures.)

MARCHANT MANUFACTURING
Schedule of Cost of Goods Manufactured

| | |
|---------------------------------------|-------------------------|
| Direct materials used: | |
| Inventory, Sept. 1 | \$ 24,000 |
| Purchases | <u>102,000</u> |
| | 126,000 |
| Inventory, Sept. 30 (d) – plug | <u>31,000</u> |
| Direct materials used – given | 95,000 |
| Direct labor | 67,000 |
| Manufacturing overhead (e) – plug | <u>72,000</u> |
| Total manufacturing cost – given | 234,000 |
| Inventory of work in process, Sept 1 | <u>6,000</u> |
| | 240,000 |
| Inventory of work in process, Sept 30 | |
| (c) – plug | <u>7,000</u> |
| Cost of goods manufactured – given | <u><u>\$233,000</u></u> |

MERCHANT MANUFACTURING
Income Statement

| | | |
|------------------------------------|----------------|------------------|
| Sales | | \$344,000 |
| Cost of goods sold: | | |
| Finished goods, Sept 1 | \$101,000 | |
| Cost of goods manufactured – above | <u>233,000</u> | |
| Available for sale | | 334,000 |
| Finished goods, Sept 30 (b) – plug | | <u>117,000</u> |
| Cost of goods sold (a) – plug | | <u>217,000</u> |
| Gross margin – given | | 127,000 |
| Operating expenses: | | |
| Administrative expenses | 41,000 | |
| Selling expenses | <u>56,000</u> | <u>97,000</u> |
| Net income – given | | <u>\$ 30,000</u> |

Blooms Level: Analyze
Difficulty: Hard
Garrison - Chapter 02 #97
Learning Objective: 3
Learning Objective: 4

98. The following data (in thousands of dollars) have been taken from the accounting records of Larsen Corporation for the year just ended:

| | |
|--------------------------------------|-------|
| Sales | \$860 |
| Purchases of raw materials | \$150 |
| Direct labour | \$110 |
| Manufacturing overhead | \$210 |
| Administrative expenses | \$130 |
| Selling expenses | \$180 |
| Raw materials inventory, beginning | \$40 |
| Raw materials inventory, ending | \$80 |
| Work-in-process inventory, beginning | \$20 |
| Work-in-process inventory, ending | \$80 |
| Finished goods inventory, beginning | \$80 |
| Finished goods inventory, ending | \$150 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
 (b.) Compute the cost of goods sold.
 (c.) Using data from your answers above as needed, prepare an income statement in good form.

(a.) Schedule of cost of goods manufactured

| | |
|--|---------------------|
| Direct materials: | |
| Raw materials inventory, beginning | \$40 |
| <i>Add:</i> Purchases of raw materials | <u>150</u> |
| Raw materials available for use | \$190 |
| <i>Deduct:</i> Raw materials inventory, ending | <u>80</u> |
| Raw materials used in production | \$110 |
| Direct labour | 110 |
| Manufacturing overhead | <u>210</u> |
| Total manufacturing cost | \$430 |
| <i>Add:</i> Work-in-process inventory, beginning | <u>20</u> |
| | \$450 |
| <i>Deduct:</i> Work-in-process inventory, ending | <u>80</u> |
| Cost of goods manufactured | <u>\$370</u> |

(b.) Computation of cost of goods sold

| | |
|---|--------------|
| Finished goods inventory, beginning | \$80 |
| <i>Add:</i> Cost of goods manufactured | <u>\$370</u> |
| Goods available for sale | \$450 |
| <i>Deduct:</i> Finished goods inventory, ending | <u>\$150</u> |
| Cost of goods sold | <u>\$300</u> |

(c.) Income statement

| | | |
|----------------------------|--------------|--------------|
| Sales | | \$860 |
| Deduct: Cost of goods sold | | <u>300</u> |
| Gross margin | | \$560 |
| Operating Expenses: | | |
| Administrative expenses | \$130 | |
| Selling expenses | <u>\$180</u> | <u>210</u> |
| Net income | | <u>\$250</u> |

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #98

Learning Objective: 3

Learning Objective: 4

99. The following data (in thousands of dollars) have been taken from the accounting records of Lerner Corporation for the year just completed:

| | |
|--------------------------------------|-------|
| Sales | \$870 |
| Purchases of raw materials | \$110 |
| Direct labour | \$130 |
| Manufacturing overhead | \$200 |
| Administrative expenses | \$160 |
| Selling expenses | \$140 |
| Raw materials inventory, beginning | \$30 |
| Raw materials inventory, ending | \$60 |
| Work-in-process inventory, beginning | \$50 |
| Work-in-process inventory, ending | \$10 |
| Finished goods inventory, beginning | \$150 |
| Finished goods inventory, ending | \$140 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
 (b.) Compute the cost of goods sold.
 (c.) Using data from your answers above as needed, prepare an income statement in good form.

(a.) Schedule of cost of goods manufactured

| | |
|--|--------------|
| Direct materials: | |
| Raw materials inventory, beginning | \$30 |
| <i>Add:</i> Purchases of raw materials | <u>110</u> |
| Raw materials available for use | \$140 |
| <i>Deduct:</i> Raw materials inventory, ending | <u>60</u> |
| Raw materials used in production | \$80 |
| Direct labour | 130 |
| Manufacturing overhead | <u>200</u> |
| Total manufacturing cost | \$410 |
| <i>Add:</i> Work-in-process inventory, beginning | <u>50</u> |
| | \$460 |
| <i>Deduct:</i> Work-in-process inventory, ending | <u>10</u> |
| Cost of goods manufactured | <u>\$450</u> |

(b.) Computation of cost of goods sold

| | |
|---|--------------|
| Finished goods inventory, beginning | \$150 |
| <i>Add:</i> Cost of goods manufactured | <u>\$450</u> |
| Goods available for sale | \$600 |
| <i>Deduct:</i> Finished goods inventory, ending | <u>\$140</u> |
| Cost of goods sold | <u>\$460</u> |

(c.) Income statement

| | | |
|----------------------------|------------|--------------|
| Sales | | \$870 |
| Deduct: Cost of goods sold | | <u>460</u> |
| Gross margin | | \$410 |
| Operating Expenses: | | |
| Administrative expenses | \$160 | |
| Deduct: Selling expenses | <u>140</u> | <u>200</u> |
| Net income | | <u>\$110</u> |

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #99

Learning Objective: 3

Learning Objective: 4

100. The following data (in thousands of dollars) have been taken from the accounting records of Larmont Corporation for the year just completed:

| | |
|--------------------------------------|-------|
| Sales | \$990 |
| Purchases of raw materials* | \$100 |
| Direct labour | \$240 |
| Indirect labour | \$100 |
| Indirect Material | \$10 |
| Other Factory Overhead | \$100 |
| Administrative expenses | \$100 |
| Selling expenses | \$140 |
| Raw materials inventory, beginning* | \$20 |
| Raw materials inventory, ending* | \$80 |
| Work-in-process inventory, beginning | \$50 |
| Work-in-process inventory, ending | \$30 |
| Finished goods inventory, beginning | \$160 |
| Finished goods inventory, ending | \$150 |

*Raw Materials consist of both direct and indirect materials.

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
- (b.) Compute the cost of goods sold.
- (c.) Using data from your answers above as needed, prepare an income statement in good form.

(a.) Schedule of cost of goods manufactured

Note: For calculation of Direct Materials used you must remember to take out the portion that is indirect material.

| | | |
|--|------------|--------------|
| Direct materials: | | |
| Raw materials inventory, beginning | \$20 | |
| <i>Add:</i> Purchases of raw materials | <u>100</u> | |
| Raw materials available for use | \$120 | |
| <i>Deduct:</i> Raw materials inventory, ending | <u>80</u> | |
| Raw materials used in production | \$40 | |
| <i>Less:</i> Indirect Material | <u>10</u> | |
| Direct Material Used | | \$30 |
| Direct labour | | 240 |
| Manufacturing overhead: | | |
| Indirect Labour | \$100 | |
| Indirect Material | 10 | |
| Other Manufacturing Overhead | <u>100</u> | |
| Total Manufacturing Overhead | | <u>210</u> |
| Total manufacturing cost | | \$480 |
| <i>Add:</i> Work-in-process inventory, beginning | | <u>50</u> |
| | | \$530 |
| <i>Deduct:</i> Work-in-process inventory, ending | | <u>30</u> |
| Cost of goods manufactured | | <u>\$500</u> |

(b.) Computation of cost of goods sold

| | |
|---|--------------|
| Finished goods inventory, beginning | \$160 |
| <i>Add:</i> Cost of goods manufactured | <u>\$500</u> |
| Goods available for sale | \$660 |
| <i>Deduct:</i> Finished goods inventory, ending | <u>\$150</u> |
| Cost of goods sold | <u>\$510</u> |

(c.) Income statement

| | | |
|-----------------------------------|--------------|--------------|
| Sales | | \$990 |
| <i>Deduct:</i> Cost of goods sold | | <u>510</u> |
| Gross margin | | \$480 |
| Operating Expenses: | | |
| Administrative expenses | \$100 | |
| Selling expenses | <u>\$140</u> | <u>240</u> |
| Net income | | <u>\$240</u> |

Blooms Level: Analyze

Difficulty: Hara

Garrison - Chapter 02 #100

Learning Objective: 3

Learning Objective: 4

101. The following costs relate to one month's activity in Martin Company:

| | |
|--------------------------------------|---------|
| Indirect materials | \$300 |
| Rent on factory building | \$500 |
| Maintenance of equipment | \$50 |
| Direct material used | \$1,200 |
| Utilities on factory | \$250 |
| Direct labour | \$1,500 |
| Selling expense | \$500 |
| Administrative expense | \$300 |
| Work-in-process inventory, beginning | \$600 |
| Work-in-process inventory, ending | \$800 |
| Finished goods inventory, beginning | \$500 |
| Finished goods inventory, ending | \$250 |

Required:

- (a.) Prepare a schedule of cost of goods manufactured in good form.
 (b.) Determine the cost of goods sold.

| | | |
|---------------------------------|------------|----------------|
| (a.) Direct materials | | \$1,200 |
| Direct labor | | 1,500 |
| Manufacturing overhead: | | |
| Indirect materials | \$300 | |
| Rent | 500 | |
| Maintenance | 50 | |
| Utilities | <u>250</u> | <u>1,100</u> |
| Total manufacturing costs | | 3,800 |
| Add: WIP, beginning | | <u>600</u> |
| | | 4,400 |
| Deduct: WIP, ending | | <u>800</u> |
| Cost of goods manufactured | | <u>\$3,600</u> |
| | | |
| (b.) Finished goods, beginning | | \$ 500 |
| Add: Cost of goods manufactured | | <u>3,600</u> |
| Goods available for sale | | 4,100 |
| Finished goods, ending | | <u>250</u> |
| Cost of goods sold | | <u>\$3,850</u> |

Blooms Level: Apply

Difficulty: Medium

Garrison - Chapter 02 #101

Learning Objective: 3

Learning Objective: 4

102. Brooke Foster is employed by Wong Laboratories, Inc., and is directly involved in preparing and packaging the company's leading sleep aid, RestWell. Brooke's basic wage rate is \$15 per hour, and she is paid time-and-a-half for any work in excess of 40 hours per week. Additionally, Wong Laboratories provides a fringe benefit package that costs the company \$5 for each hour of employee time (regular or overtime). During a recent week, Brooke worked 49 hours but was idle for 3 hours due to materials shortages.

Required:

(a.) Assume that Wong Laboratories treats all fringe benefits as part of manufacturing overhead. Compute Brooke's total wages and fringe benefits for the week and indicate how much of her wages and fringe benefits for the week would be allocated to direct labour and how much would be allocated to manufacturing overhead.

(b.) Assume that Wong Laboratories treats the part of fringe benefits related to direct labour as a component of direct labour cost. Compute Brooke's total wages and fringe benefits for the week and indicate how much of her wages and fringe benefits would be allocated to direct labour and how much would be allocated to manufacturing overhead.

(a.)

| | | |
|---------------------------------|-------------------|--------------------|
| Regular time: | 40 hours x \$15 | \$ 600.00 |
| Overtime: | 9 hours x \$22.50 | 202.50 |
| Fringe benefits: | 49 hours x \$5 | <u>245.00</u> |
| Total wages and fringe benefits | | <u>\$ 1,047.50</u> |

| | | |
|--|-----------------|--------------------|
| Allocation of wages and fringe benefits: | | |
| Direct labour: | 46 hrs. x \$15 | \$ 690.00 |
| Manufacturing overhead: | | |
| Idle time: | 3 hrs. x \$15 | 45.00 |
| Overtime premium: | 9 hrs. x \$7.50 | 67.50 |
| Fringe benefit: | 49 hrs. x \$5 | <u>245.00</u> |
| Total wages and fringe benefits | | <u>\$ 1,047.50</u> |

(b.) Total wages and fringe benefits would be \$1,047.50 as shown in (a.) above.

Allocation of wages and fringe benefits:

| | | |
|---------------------|----------------|------------------|
| Direct labour: | | |
| Wage cost: | 46 hrs. x \$15 | \$ 690.00 |
| Fringe benefit: | 46 hrs. x \$5 | <u>230.00</u> |
| Total direct labour | | <u>\$ 920.00</u> |

| | | |
|---------------------------------|---------------|--------------------|
| Manufacturing overhead: | | |
| Idle time: | 3 hrs. x \$15 | \$ 45.00 |
| Overtime premium: | 9 x \$7.50 | 67.50 |
| Fringe benefits: | 3 hrs. x \$5 | <u>15.00</u> |
| Total manufacturing overhead | | <u>\$ 127.50</u> |
| Total wages and fringe benefits | | <u>\$ 1,047.50</u> |

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #102

Learning Objective: 1

103. Fred Adams is employed by the Cedar Manufacturing Company on their assembly line. Fred is paid \$15 per hour for regular time, and time-and-a-half for all work in excess of 40 hours per week. During the two weeks of the pay period just completed, Fred reported the following:

Week 1:
 Idle time due to machine breakdowns 3 hours
 Idle time due to material shortages 2 hours
 Overtime None

Week 2:
 Idle time None
 Overtime 9 hours

Required:

Compute Fred's wages for each week and allocate Fred's wages for each week between direct labour cost and manufacturing overhead.

Week 1:
 Fred's wages equal 40 hours x \$15 per hour, or \$600.
 Fred's wages would be allocated between direct labour and manufacturing overhead as follows:

| | |
|--|-----------------|
| Direct labour cost: 35 hours x \$15 | \$525.00 |
| Manufacturing overhead: 5 hours x \$15 | <u>75.00</u> |
| Total | <u>\$600.00</u> |

Week 2:
 Fred's wages equal:
 40 hours x \$15 per hour \$600.00
 9 hours x \$22.50 per hour 202.50
 Total wages for Week 2 \$802.50

Fred's wages would be allocated between direct labour and manufacturing overhead as follows:

| | |
|--|-----------------|
| Direct labour cost: 49 hours x \$15 per hour | \$735.00 |
| Manufacturing overhead: 9 hours x \$7.50 | <u>67.50</u> |
| Total | <u>\$802.50</u> |

104. The following inventory and cost data for the just completed year are taken from the accounting records of Sankar Company:

| | | |
|---------------------------------|-----------|---------|
| Inventories | | |
| Increase in raw materials | | \$4,000 |
| Increase in work in process | | 30,000 |
| Decrease in finished goods | | 90,000 |
| Costs incurred | | |
| Advertising expense | \$200,000 | |
| Direct labour cost | 180,000 | |
| Purchases of raw materials | 264,000 | |
| Rent, factory building | 60,000 | |
| Indirect factory labour | 112,600 | |
| Sales commissions | 70,000 | |
| Utilities, factory | 18,000 | |
| Maintenance, factory equipment | 48,000 | |
| Supplies, factory | 1,400 | |
| Depreciation, office equipment | 16,000 | |
| Depreciation, factory equipment | 80,000 | |

Required:

(a.) Calculate the cost of goods manufactured.

(b.) Calculate the cost of goods sold

(a.)

| | | |
|--|---------------|------------------|
| Direct material used: | | |
| Purchases of raw materials | \$264,000 | |
| Deduct: Increase in raw materials | <u>4,000</u> | \$260,000 |
| Direct labour cost | | 180,000 |
| Manufacturing overhead cost incurred: | | |
| Rent, factory building | \$60,000 | |
| Indirect factory labour | 112,600 | |
| Utilities, factory | 18,000 | |
| Maintenance, factory equipment | 48,000 | |
| Supplies, factory | 1,400 | |
| Depreciation, factory equipment | <u>80,000</u> | <u>320,000</u> |
| Total manufacturing cost added | | \$760,000 |
| Deduct: Increase in work in process inventory | | <u>30,000</u> |
| Cost of goods manufactured | | <u>\$730,000</u> |

(b.)

| | |
|--|------------------|
| Cost of goods manufactured | \$730,000 |
| Add: Decrease in finished goods inventory | <u>90,000</u> |
| Cost of goods sold | <u>\$820,000</u> |

Blooms Level: Analyze

Difficulty: Hard

Garrison - Chapter 02 #104

Learning Objective: 3

Learning Objective: 4

105. The following selected account balances for the year ended December 31 are provided for Amita Company:

| | |
|-------------------------------------|-----------|
| Purchases of raw materials | \$260,000 |
| Direct labour | 65,000 |
| Maintenance, factory | 74,000 |
| Selling and administrative salaries | 179,000 |
| Depreciation, factory equipment | 110,000 |
| Cleaning supplies | 6,000 |
| Sales commissions | 350,000 |
| Utilities, factory building | 52,000 |
| Rent, factory | 90,000 |
| Depreciation, sales equipment | 80,000 |
| Insurance, factory equipment | 8,000 |
| Advertising expense | 300,000 |

In addition, you have the following information about inventories during the year:

| | |
|-----------------------------|------------------------|
| Increase in raw materials | \$10,000 |
| Decrease in work in process | \$15,000 |
| Beginning finished goods | \$30,000 (1,000 units) |
| Ending finished goods | \$? (3,400 units) |
| Equivalent units produced | \$? (27,600 units) |

Assume the company uses FIFO.

Required:

- Calculate the cost of the 27,600 equivalent units that were produced during the year.
- Calculate the cost of the ending finished goods inventory.
- Calculate the cost of goods sold.

(a.) This is the same as calculating the cost of goods manufactured during the year.

| | | |
|---|---------------|------------------|
| Direct material used: | | |
| Purchases of raw materials | \$260,000 | |
| Add: Decrease in raw materials | <u>10,000</u> | \$270,000 |
| Direct labour cost | | 65,000 |
| Manufacturing overhead cost incurred: | | |
| Maintenance, factory | \$74,000 | |
| Depreciation, factory equipment | 110,000 | |
| Cleaning supplies, factory | 6,000 | |
| Utilities, factory | 52,000 | |
| Rent, factory building | 90,000 | |
| Insurance, factory equipment | <u>8,000</u> | <u>340,000</u> |
| Total manufacturing cost added | | \$675,000 |
| Add: Increase in work in process inventory | <u>15,000</u> | <u>15,000</u> |
| Cost of goods manufactured | | <u>\$690,000</u> |

(b.) Because the company uses FIFO, the entire 3,400 units in ending finished goods inventory are from the 27,600 equivalent units produced during the year. The average manufacturing cost per unit is \$25 per unit, that is, \$690,000/27,600. The cost of the ending finished goods inventory is \$85,000, that is, 3,400 x \$25.

(c.)

| | | |
|---|------------------|------------------|
| Cost of goods manufactured | \$690,000 | |
| Deduct: Increase in finished goods inventory | <u>55,000</u> | (Note 1) |
| Cost of goods sold | <u>\$635,000</u> | (Note 2) |
| Note 1: \$85,000 - \$30,000 | | |
| Note 2: | | |
| Units sold = 25,200 (1,000 + 27,600 - 3,400) | | |
| Cost: 1,000 from beginning finished goods inventory | \$30,000 | |
| 24,200 from units completed during the year: | | |
| 24,200 x \$25 | <u>605,000</u> | |
| Total | | <u>\$635,000</u> |

Blooms Level: Analyze
Difficulty: Hard
Garrison - Chapter 02 #105
Learning Objective: 3
Learning Objective: 4

106. Mary Tappin, an assistant Vice President at Galaxy Toys, was disturbed to find on her desk a memo from her boss, Gary Resnick, to the controller of the company. The memo appears below:

Galaxy Toys Internal Memo

Sept 15

To: Harry Wilson, Controller

Fm: Gary Resnick, Executive Vice President

As you know, we won't start recording many sales until October when stores start accepting shipments from us for the Christmas season. Meanwhile, we are producing flat-out and are building up our finished goods inventories so that we will be ready to ship next month.

Unfortunately, we are in a bind right now since it looks like the net income for the quarter ending on Sept 30 is going to be pretty awful. This may get us in trouble with the bank since they always review the quarterly financial reports and may call in our loan if they don't like what they see. Is there any possibility that we could change the classification of some of our period costs to product costs--such as the rent on the finished goods warehouse?

Please let me know as soon as possible. The President is pushing for results.

Mary didn't know what to do about the memo. It wasn't intended for her, but its contents were alarming.

Required:

a. Why has Gary Resnick suggested reclassifying some period costs as product costs?

b. Why do you think Mary was alarmed about the memo?

a. Gary Resnick has suggested reclassifying some period costs as product costs since the company is building up large finished goods inventories in anticipation of the Christmas selling season. Product costs are inventoried and flow through to the income statement only when

products are sold. Period expenses, in contrast, flow directly to the income statement. Since most of the finished goods inventories will be held over to the next quarter, reclassifying period costs as product costs will effectively defer recognition of expenses until next quarter and therefore will improve the current quarter's net operating income.

b. Mary Tappin is probably alarmed by both the economic situation the company finds itself in and by the apparent willingness of top management to bend the rules. Improperly reclassifying costs is an indication that top management does not feel like it has to play by the rules or be honest in its dealings with the bank. With such loose ethical standards, Mary may wonder what other things they are doing that are unethical and/or illegal.

Blooms Level: Evaluate

Difficulty: Hard

Garrison - Chapter 02 #106

Learning Objective: 2

Learning Objective: 3

107. For the majority of manufacturing companies, the distinction between period costs and product costs is essential because of its effect on net income for a period. Failure to make the distinction can affect the cost of goods manufactured and cost of goods sold.

Required:

Would the need to make the distinction between product costs and period costs still be essential if a manufacturing company were to adopt the just-in-time technique in the lean thinking model? Explain.

The need for the distinction would not be essential in terms of its impact on net income. There will literally be no inventories of any kind (raw materials, work-in-process, and finished goods). Cost of goods manufactured will equal all the manufacturing costs incurred (nothing to be held back as product costs or assets in either raw materials inventory or work-in-process inventory). Cost of goods sold will also equal cost of goods manufactured (again because nothing will be held back as product cost in finished goods inventory). All manufacturing costs will be released to the income statement and therefore, in essence, treated as period costs.

Blooms Level: Evaluate

Difficulty: Hard

Garrison - Chapter 02 #107

Learning Objective: 2

Learning Objective: 3

108. Manufacturing overhead is one of the three elements of manufacturing costs. Unlike direct materials and direct labour costs, assigning manufacturing overhead cost to products can be a very difficult task.

Required:

Do you agree with this aspect of manufacturing overhead? Why or why not?

The response is an emphatic yes (note: this response may not be so obvious to many students at this stage of the course). Manufacturing overhead costs are indirect in the sense that they cannot be conveniently traced to particular products. Some of these costs are consumed in very small amounts and therefore tracing is not cost-effective. Others may be common costs because they are consumed jointly by several products. An example is the straight-line depreciation cost of factory equipment used to manufacture multiple products. It is almost impossible to trace such cost to individual products.

Manufacturing overhead costs are, therefore, assigned to products only by using some allocation base, such as some aspects of direct labour (for example, direct labour hours and direct labour cost). Choosing an appropriate allocation is not easy since there are usually several competing ones. Overhead application is covered in more detail in chapter 3. It should be noted that recent advances in technology and managerial accounting techniques are making it possible to conveniently (and economically) trace some of the so-called overhead costs to products. Some of these advances (for example, activity-based costing and bar coding) will be covered in later topics.

Blooms Level: Create

Difficulty: Hard

Garrison - Chapter 02 #108

Learning Objective: 1

109. Assume, as discussed in the chapter, actual manufacturing costs (that is, direct material used, direct labour, and manufacturing overhead) are charged to products in calculating the cost of goods manufactured.

Required:

As a manager, explain some of the potential problems such a system may give you.

One major potential problem is making decisions which cannot wait for actual manufacturing costs to be determined later. Typical decisions of this type include pricing and bidding on contracts. Actual manufacturing cost data are not very useful for such decisions because they are not timely.

A second major potential problem is unique to actual manufacturing overhead costs data: some of the costs tend to fluctuate from season to season, for example, heating costs. In such cases, actual manufacturing overhead costs charged to the same product will vary accordingly from season to season.

Another major potential problem unique to charging actual manufacturing overhead cost to products is the fact that the cost per unit allocated to each product may vary with activity levels such as units of production. Some of manufacturing overhead costs are fixed in total and therefore the average cost per unit that is allocated to particular products will change depending on the units produced.

In practice, companies do not allocate actual manufacturing overhead to products. Instead, they use an allocation rate set at the beginning of the period (based on estimated costs and activity levels) to charge manufacturing overhead costs to products. This technique will be introduced in Chapter 3. Subsequent chapters will introduce even more refinements where only pre-set estimates for both the cost and the quantity of all inputs (including direct material and direct labour) are used.

Blooms Level: Create

Blooms Level: Evaluate

Difficulty: Hard

Garrison - Chapter 02 #109

Chapter 02 Cost Terms, Concepts, and Classifications

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