Chapter 02
Cost Concepts and Behavior

True / False Questions

1. The cost of an item is the sacrifice made to acquire it.
True False

2. An expense is an expired cost matched with revenues in a specific accounting period.
True False

3. An asset is a cost matched with revenues in a future accounting period.
True False

4. Accounting systems typically record opportunity costs as assets and treat them as intangible items on the financial statements.
True False

5. Total cost of goods purchased *minus* beginning merchandise inventory *plus* ending merchandise inventory *equals* cost of goods sold.
True False

6. Cost of goods sold includes the actual costs of the goods sold and the cost of selling them to the customer.
True False

7. Period costs are those costs assigned to units of production in the period in which they are incurred.
True False

8. Only direct costs can be classified as product costs; indirect costs are classified as period costs.
True False

9. The three categories of product costs are direct materials, direct labor, and manufacturing overhead.
True False

10. The first step in determining whether a cost is direct or indirect is to specify the cost allocation rule.
True False

11. Total work-in-process during the period is the sum of the beginning work-in-process inventory and the total manufacturing costs incurred during the period.
True False

12. Cost of goods sold *plus* the ending finished goods inventory *minus* the beginning finished goods inventory *equals* the cost of goods manufactured.
True False

13. If the cost of goods manufactured during the period exceeds the cost of goods sold, the balance of the Finished Goods Inventory account increased.
True False

14. Total variable costs change inversely with changes in the volume of activity.
True False

15. Fixed costs per unit change inversely with changes in the volume of activity.
True False

16. The range within which fixed costs remain constant as volume of activity varies is known as the relevant range.
True False

17. The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
True False

18. Variable marketing and administrative costs are included in determining full absorption costs.
True False

19. Revenue *minus* cost of goods sold *equals* contribution margin.
True False

20. The primary goal of the cost accounting system is to provide managers with information to prepare their annual financial statements.
True False

Multiple Choice Questions

21. Which of the following statements is (are) true?
(1). An asset is a cost that will be matched with revenues in a future accounting period.
(2). Opportunity costs are recorded as intangible assets in the current accounting period.
A. Only (1) is true.
B. Only (2) is true.
C. Both (1) and (2) are true.
D. Neither (1) nor (2) are true.

22. Which of the following statements is (are) false?
(1). In general, the term *expense* is used for managerial purposes, while the term *cost* refers to external financial reports.
(2). An opportunity cost is the benefit forgone by selecting one alternative over another.
A. Only (1) is false.
B. Only (2) is false.
C. Both (1) and (2) are false.
D. Neither (1) nor (2) are false.

23. Which of the following best distinguishes an opportunity cost from an outlay cost?
A. Opportunity costs are recorded, whereas outlay costs are not.
B. Outlay costs are speculative in nature, whereas opportunity costs are easily traceable to products.
C. Opportunity costs have very little utility in practical applications, whereas outlay costs are always relevant.
D. Opportunity costs are sacrifices from foregone alternative uses of resources, whereas outlay costs are cash outflows.

24. Which of the following accounts would be a period cost rather than a product cost?
A. Depreciation on manufacturing machinery.
B. Maintenance on factory machines.
C. Production manager's salary.
D. Direct Labor.
E. Freight out.

25. A company which manufactures custom-made machinery routinely incurs sizable telephone costs in the process of taking sales orders from customers. Which of the following is a proper classification of this cost?
A. Product cost
B. Period cost
C. Conversion cost
D. Prime cost

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

27. XYZ Company manufactures a single product. The product's prime costs consist of
A. direct material and direct labor.
B. direct material and factory overhead.
C. direct labor and factory overhead.
D. direct material, direct labor and factory overhead.
E. direct material, direct labor and variable factory overhead.

28. Which of the following costs is both a prime cost and a conversion cost?
A. direct materials
B. direct labor
C. manufacturing overhead
D. administrative costs
E. marketing costs

29. Marketing costs include all of the following except:
A. Advertising.
B. Shipping costs.
C. Sales commissions.
D. Legal and accounting fees.
E. Office space for sales department.

30. Property taxes on the manufacturing facility are an element of

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

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

31. Classifying a cost as either direct or indirect depends upon
A. whether an expenditure is unavoidable because it cannot be changed regardless of any action taken.
B. whether the cost is expensed in the period in which it is incurred.
C. the behavior of the cost in response to volume changes.
D. the cost object to which the cost is being related.

32. The beginning Work-in-Process inventory plus the total of the manufacturing costs equals
A. total finished goods during the period.
B. cost of goods sold for the period.
C. total work-in-process during the period.
D. cost of goods manufactured for the period.

33. The cost of the direct labor will be treated as an expense on the income statement when the resulting:
A. payroll costs are paid.
B. payroll costs are incurred.
C. products are completed.
D. products are sold.

34. Inventoriable costs:
A. include only the prime costs of manufacturing a product.
B. include only the conversion costs of providing a service.
C. exclude fixed manufacturing costs.
D. are regarded as assets until the units are sold.
E. are regarded as expenses when the costs are incurred.

35. A product cost is deducted from revenue when
A. the finished goods are sold.
B. the expenditure is incurred.
C. the production process takes place.
D. the production process is completed.
E. the finished goods are transferred to the Finished Goods Inventory.

36. The amount of direct materials issued to production is found by
A. subtracting ending work in process from total work in process during the period.
B. adding beginning direct materials inventory and the delivered cost of direct materials.
C. subtracting ending direct materials from direct materials available for production.
D. adding delivered cost of materials, labor, and manufacturing overhead.
E. subtracting purchases discounts and purchases returns and allowances from purchases of direct material plus freight-in.

37. The beginning Finished Goods Inventory plus the cost of goods manufactured equals
A. ending finished goods inventory.
B. cost of goods sold for the period.
C. total work-in-process during the period.
D. total cost of goods manufactured for the period.
E. cost of goods available for sale for the period.

38. Direct labor would be part of the cost of the ending inventory for which of these accounts?
A. Work-in-Process.
B. Finished Goods.
C. Direct Materials and Work-in-Process.
D. Work-in-Process and Finished Goods.
E. Direct Materials, Work-in-Process, and Finished Goods.

39. The Work-in-Process Inventory of the Rapid Fabricating Corp. was $3,000 higher on December 31, 2010 than it was on January 1, 2010. This implies that in 2010
A. cost of goods manufactured was higher than cost of goods sold.
B. cost of goods manufactured was less than total manufacturing costs.
C. manufacturing costs were higher than cost of goods sold.
D. manufacturing costs were less than cost of goods manufactured.
E. cost of goods manufactured was less than cost of goods sold.

40. Which of the following is *not* a product cost under full-absorption costing?
A. Direct materials used in the current period
B. Rent for the warehouse used to store direct materials
C. Salaries paid to the top management in the company
D. Vacation pay accrued for the production workers

41. The term "gross margin" for a manufacturing firm refers to the excess of sales over:
A. cost of goods sold, excluding fixed indirect manufacturing costs.
B. all variable costs, including variable marketing and administrative costs.
C. cost of goods sold, including fixed indirect manufacturing costs.
D. variable costs, excluding variable marketing and administrative costs.
E. total manufacturing costs, including fixed indirect manufacturing costs.

42. How would property taxes paid on a factory building be classified in a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

43. How would miscellaneous supplies used in assembling a product be classified for a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

44. How would a 5% sales commission paid to sales personnel be classified in a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

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

	Nurse's Salaries	Film and Other Materials Used in Radiology
a.	Fixed cost	Fixed cost
b.	Fixed cost	Variable cost
c.	Variable cost	Fixed cost
d.	Variable cost	Variable cost
e.	Mixed cost	Mixed cost

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

46. Pete's Pizza Place has four pizza makers and ten other employees who take orders from customers and perform other tasks. The four pizza makers and the other employees are paid an hourly wage. How would one classify (1) the wages paid to the pizza makers and other employees and (2) materials (e.g., cheeses, sauce, etc.) used to make the pizza? Assume the activity is the number of pizzas made.

	Employees' Wages	Materials to make the pizza
a.	Fixed cost	Fixed cost
b	Fixed cost	Variable cost
c.	Variable cost	Fixed cost
d.	Mixed cost	Variable cost
e.	Mixed cost	Mixed cost

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

47. Which of the following statements is (are) true?
(1). The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
(2). The fixed cost per unit is considered constant despite changes in volume of activity within the relevant range.
A. Only (1) is true.
B. Only (2) is true.
C. Both (1) and (2) are true.
D. Neither (1) nor (2) are true.

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

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

A. $298,800
B. $290,800
C. $282,100
D. $304,000

49. A company had beginning inventories as follows: Direct Materials, $300; Work-in-Process, $500; Finished Goods, $700. It had ending inventories as follows: Direct Materials, $400; Work-in-Process, $600; Finished Goods, $800. Material Purchases (net including freight) were $1,400, Direct Labor $1,500, and Manufacturing Overhead $1,600. What is the Cost of Goods Sold for the period?
A. $4,100.
B. $4,200.
C. $4,300.
D. $4,400.

50. Compute the Cost of Goods Sold for 2008 using the following information:

Direct Materials, January 01, 2008	$40,000
Work-in-Process, December 31, 2008	69,000
Direct Labor	48,500
Finished Goods, December 31,2008	105,000
Finished Goods, January 01, 2008	128,000
Manufacturing Overhead	72,500
Direct Materials, December 31,2008	43,000
Work-in Process, January 01, 2008	87,000
Purchases of direct material	75,000

A. $244,000
B. $234,000
C. $211,000
D. $198,000
E. $188,000

51. Seiler Company has the following information:

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

What was the direct labor for the period?
A. $5,500.
B. $5,800.
C. $6,300.
D. $6,800.
E. $7,500.

52. Seiler Company has the following information:

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

What was the cost of goods available for sale for the period?
A. $16,800
B. $16,500
C. $16,100
D. $15,100

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

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

What are the estimated conversion costs per unit?
A. $35
B. $41
C. $44
D. $48
E. $67

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

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

What are the estimated prime costs per unit?
A. $73
B. $32
C. $67
D. $52
E. $76

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

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

What are the estimated variable costs per unit?
A. $70
B. $38
C. $67
D. $52
E. $18

56. Calculate the conversion costs from the following information:

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

A. $3,000
B. $4,000
C. $4,500
D. $5,000
E. $7,000

57. During the year, a manufacturing company had the following operating results:

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

What is the cost of goods manufactured for the year?
A. $1,011,000
B. $1,134,000
C. $1,033,000
D. $1,112,000

58. During April, the CJG Manufacturing Company had the following operating results:

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

What is the cost of goods manufactured for April?
A. $900,000
B. $875,000
C. $925,000
D. $905,000

59. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the variable manufacturing cost per unit?
A. $380
B. $430
C. $480
D. $730

60. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the total manufacturing cost per unit?
A. $380
B. $430
C. $480
D. $730

61. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the full cost per unit of making and selling the product?
A. $430
B. $480
C. $530
D. $730

62. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the contribution margin per unit?
A. $70
B. $320
C. $370
D. $430

63. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the conversion cost per unit?
A. $100
B. $180
C. $280
D. $380

64. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the prime cost per unit?
A. $100
B. $280
C. $300
D. $480

65. The following information was collected from the accounting records of the CJG 65 for 3,000 units:

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

What is CJG's total cost per unit?
A. $180.
B. $200.
C. $210.
D. $250.

66. The difference between variable costs and fixed costs is (CMA adapted)
A. Unit variable costs fluctuate and unit fixed costs remain constant.
B. Unit variable costs are fixed over the relevant range and unit fixed costs are variable.
C. Total variable costs are constant over the relevant range, while fixed costs change in the long-term.
D. Total variable costs are variable over the relevant range but fixed in the long-term, while fixed costs never change.
E. Unit variable costs change in varying increments, while unit fixed costs change in equal increments.

67. Which one of the following costs is classified as a period cost? (CIA adapted)
A. The wages of the workers on the shipping docks who load completed products onto outgoing trucks.
B. The wages of a worker paid for idle time resulting from a machine breakdown in the molding department.
C. The payments for employee (fringe) benefits paid on behalf of the workers in the manufacturing plant.
D. The wages paid to workers for reworking defective products that failed the quality inspection upon completion.

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

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

Based upon this information, the manufacturing cost incurred during the month was:
A. $78,500.
B. $80,000.
C. $80,500.
D. $83,000.

69. Sarasota Company, (a merchandising Co.) has the following data pertaining to the year ended December 31, 2006: (CPA adapted)

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

What is the cost of goods sold for the year?
A. $385,000
B. $460,000
C. $485,000
D. $536,000

70. The Southeastern Company's manufacturing costs for the third quarter of 2008 were as follows: (CPA adapted)

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

What amount should be considered product costs for external reporting purposes?
A. $700,000
B. $800,000
C. $880,000
D. $898,000

Makwa Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.
Makwa's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are not allocated to individual products.

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

71. For Makwa's Product L, the costs for direct material, machining labor, and assembly labor represent
A. Conversion costs.
B. Period costs.
C. Prime costs.
D. Common costs.
E. Fixed costs.

72. The difference between the $100 estimated selling price for Product W and its total cost of $88 represents
A. Contribution margin per unit.
B. Gross margin per unit.
C. Variable cost per unit.
D. Operating profit per unit.
E. Net income per unit.

73. The total overhead cost of $27 for Makwa's Product W is a
A. Sunk cost.
B. Opportunity cost.
C. Variable cost.
D. Mixed cost.
E. Fixed cost.

74. Research and development costs for Makwa's two new products are
A. Prime costs.
B. Conversion costs.
C. Opportunity costs.
D. Sunk costs.
E. Avoidable costs.

75. The advertising costs for the product selected by Makwa will be
A. Prime costs.
B. Conversion costs.
C. Period costs.
D. Opportunity costs.
E. Product costs.

76. An opportunity cost is
A. a cost that is charged against revenue in an accounting period.
B. the foregone benefit from the best alternative course of action.
C. the excess of operating revenues over operating costs.
D. the cost assigned to the products sold during the period.
E. the cost assigned to the products produced during the period.

77. The process of assigning indirect costs to products, services, people, business units, etc., is
A. cost object.
B. cost pool.
C. cost allocation.
D. opportunity cost.

78. A _____ is any end to which a cost is assigned.
A. cost object
B. cost pool
C. cost allocation
D. opportunity cost

79. A cost allocation rule is the method or process used to assign the costs in the _____ to the _____.
A. cost allocation; cost pool
B. cost pool; opportunity cost
C. cost object; cost pool
D. cost pool; cost object

80. Under full absorption costing, which of the following are included in product costs?
A. Only direct materials and direct labor.
B. Only variable manufacturing costs.
C. Only conversion costs.
D. All fixed and variable manufacturing costs.

81. Waupun Company has the following unit costs:

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

What cost per unit would be used for product costing under full absorption costing?
A. $29
B. $42
C. $52
D. $60

82. Waupun Company has the following unit costs:

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

What cost per unit would be used for product costing under variable costing?
A. $29
B. $42
C. $52
D. $60

83. Cheboygan Company has the following unit costs:

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

Cheboygan produced and sold 10,000 units. If the product sells for $100, what is the gross margin?
A. $170,000
B. $240,000
C. $290,000
D. $360,000

84. Cheboygan Company has the following unit costs:

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

Cheboygan produced and sold 10,000 units. If the product sells for $100, what is the contribution margin?
A. $170,000
B. $240,000
C. $290,000
D. $360,000

85. Cheboygan Company has the following unit costs:

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

Cheboygan produced and sold 10,000 units. If the product sells for $100, what is the operating profit under full absorption costing?
A. $170,000
B. $240,000
C. $290,000
D. $360,000

86. Cheboygan Company has the following unit costs:

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

Cheboygan produced and sold 10,000 units. If the product sells for $100, what is the operating profit using a contribution margin income statement?
A. $170,000
B. $240,000
C. $290,000
D. $360,000

Essay Questions

87. The following information is available for the Netland Consulting Company for the fiscal year ended December 31.

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

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

88. The following information is available for the Ridgedale Manufacturing Company for the fiscal year ended December 31.

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

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

89. The following information is available for the Roberts Retail Store for the fiscal year ended December 31.

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

Required:
(a) Prepare a cost of goods sold statement for Roberts Retail Store.
(b) Compute the gross margin for the fiscal year ended December 31.

90. Required:
For each of the following costs incurred in a manufacturing company, indicate whether the costs are (a) fixed or variable and (b) product costs or period costs.

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

* Straight-line depreciation method used.

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

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

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

Required:
Complete the answer sheet that follows by placing an "X" under <u>each</u> heading that identifies the cost involved. The "X's" can be placed under *more than one heading* for a single cost, e.g., a cost might be a variable cost, and an overhead cost.

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

92. The following cost and inventory data were taken from the records of the Beca Company for the year:

Costs incurred:

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

Inventories:

	January 1	December31
Direct materials	$9,000	$11,000
Work in process	6,000	21,000
Finished goods	69,000	24,000

Required:

(a) Compute the cost of goods manufactured.

(b) Prepare a cost of goods sold statement.

93. The Matter Manufacturing Company provided you with the following information for the fiscal year ended December 31.

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

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

94. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July:

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

Required: Compute the following *per unit* items, assuming the company produced and sold 5,000 units at a price of $210.00 per unit.
(a) Total variable cost
(b) Variable inventoriable cost
(c) Full absorption cost
(d) Full cost
(e) Contribution margin
(f) Gross margin
(g) Profit margin

95. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July:

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

Required: Assuming the company produced and sold 5,000 units, and there were no units in inventory on July 1, prepare the following income statements for the month of July:
(a) Contribution margin income statement.
(b) Gross margin income statement.

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

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

Required: Compute the following amounts for July, assuming 30,000 baseballs were produced and sold: (Assume normal production ranges from 15,000 to 40,000 baseballs)
(a) Total manufacturing costs.
(b) Total conversion costs.
(c) Period costs per unit.
(d) Full costs per unit.

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

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

98. The following data appeared in Hunter Company's records on December 31:

Direct materials inventory, December 31	$ 535,500
Direct materials purchased during the year	2,268,000
Finished goods inventory, December 31	567,000
Indirect labor	201,600
Direct labor	2,520,000
Factory heat, light, and power	234,360
Factory depreciation	393,900
Administrative salaries	323,820
Miscellaneous factory cost	200,970
Marketing costs	233,100
Other administrative costs	113,400
Maintenance on factory equipment	76,230
Insurance on factory equipment	119,700
Distribution costs	10,080
Taxes on manufacturing property	82,530
Legal fees on customer complaint	51,660
Direct materials put into production	2,407,230
Work-in-process inventory, December 31	154,980

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

Required: ***Prepare a cost of goods sold statement and an income statement.***

99. The information below has been taken from the cost records of Scottso Corp. for the past year:

Raw materials used in production		$326
Total manufacturing costs charged to production during the year (includes $135 of factory overhead)		686
Cost of goods available for sale		826
Selling & administrative expenses		25
Inventories:	Beginning	Ending
Direct materials	75	85
Work in process	80	30
Finished goods	90	110

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

100. Information from the records of the Garver Production Company for the month of January is as follows:

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

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

Required:
a. Prepare a statement of cost of goods manufactured for the month of January.
b. Prepare an income statement for the month of January.

101. The information below has been taken from the cost records of Benno Corp. for the past year:

Raw materials used in production		$572
Total manufacturing costs charged to production during the year (includes $255 of factory overhead)		1,095
Cost of goods available for sale		1,415
Selling & administrative expenses		255
Inventories:	Beginning	Ending
Direct materials	175	155
Work in process	220	190
Finished goods	290	310

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

102. Information from the records of the Seiler Production Company for the month of July is as follows:

July is as follows:

Purchases of direct materials		$24,000
Indirect labor		6,500
Direct labor		13,200
Depreciation on factory machinery		3,600
Sales		75,300
Selling and administrative expenses		8,900
Rent on factory building		8,400
Inventories	January 1	January 31
Direct materials	$8,000	$6,700
Work-in-process	1,100	1,600
Finished goods	9,000	6,800

Required:
a. Prepare a statement of cost of goods manufactured for the month of July.
b. Prepare an income statement for the month of July.

103. The Moundsview Company provided you with the following information for the fiscal year ended December 31.

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

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

104. The Boyceville Machining Company provided you with the following information for the fiscal year ended December 31.

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

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

105. Finkler Retail has collected the following information for May:

Sales revenue	$ 1,650,000
Store rent	84,000
Utilities	57,200
Sales commissions	247,500
Merchandise inventory, 5/1	118,200
Merchandise inventory, 5/1	118,200
Freight-in	54,600
Administrative costs	115,100
Merchandise purchases	1,091,000

Required: Prepare an income statement for the month of May

106. Fowler Retail has collected the following information for August:

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

Required: Prepare an income statement for the month of August.

107. Explain the difference between an outlay cost, and expense, and an opportunity cost.

108. Explain the difference between a cost, a cost object, and a cost pool.

109. Explain the difference between direct materials inventory, work in process inventory, finished goods inventory and cost of goods sold.

110. Explain the difference between cost of goods manufactured and cost of goods sold.

111. Explain the difference between a direct cost and an indirect cost.

Chapter 02 Cost Concepts and Behavior Answer Key

True / False Questions

1. The cost of an item is the sacrifice made to acquire it.
TRUE

this is the definition of cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Easy
Learning Objective: 1
Topic Area: What Is a Cost?

2. An expense is an expired cost matched with revenues in a specific accounting period.
TRUE

this is the definition of expense

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Easy
Learning Objective: 1
Topic Area: Cost versus Expenses

3. An asset is a cost matched with revenues in a future accounting period.
TRUE

this is a definition of asset

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Medium
Learning Objective: 1
Topic Area: Cost versus Expenses

4. Accounting systems typically record opportunity costs as assets and treat them as intangible items on the financial statements.
FALSE

opportunity costs are not reflected in the accounting system—they are what did not happen

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 1
Topic Area: What Is a Cost?

5. Total cost of goods purchased *minus* beginning merchandise inventory *plus* ending merchandise inventory *equals* cost of goods sold.
FALSE

purchased *plus* beginning *minus* ending equals COGS

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Hard
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

6. Cost of goods sold includes the actual costs of the goods sold and the cost of selling them to the customer.
FALSE

COGS does not include selling costs

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

7. Period costs are those costs assigned to units of production in the period in which they are incurred.
FALSE

these are product costs, not period costs

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Hard
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

8. Only direct costs can be classified as product costs; indirect costs are classified as period costs.
FALSE

product costs can include indirect costs as well

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 2
Topic Area: Direct and Indirect Manufacturing (Product) Costs

9. The three categories of product costs are direct materials, direct labor, and manufacturing overhead.
TRUE

definition of product cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Easy
Learning Objective: 2
Topic Area: Direct and Indirect Manufacturing (Product) Costs

10. The first step in determining whether a cost is direct or indirect is to specify the cost allocation rule.
FALSE

first step is to define the cost object

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 3
Topic Area: Direct versus Indirect Costs

11. Total work-in-process during the period is the sum of the beginning work-in-process inventory and the total manufacturing costs incurred during the period.
TRUE

this is the correct formula for *total* WIP

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: How Costs Flow through the Statements

12. Cost of goods sold *plus* the ending finished goods inventory *minus* the beginning finished goods inventory *equals* the cost of goods manufactured.
TRUE

working backwards from COGS to COGM

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Hard
Learning Objective: 4
Topic Area: How Costs Flow through the Statements

13. If the cost of goods manufactured during the period exceeds the cost of goods sold, the balance of the Finished Goods Inventory account increased.
TRUE

since COGS = COGM + Beginning FG - Ending FG

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Hard
Learning Objective: 4
Topic Area: How Costs Flow through the Statements

14. Total variable costs change inversely with changes in the volume of activity.
FALSE

total variable costs are linear; fixed costs would vary inversely

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 5
Topic Area: Cost Behavior

15. Fixed costs per unit change inversely with changes in the volume of activity.
TRUE

fixed costs in total would not change

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 5
Topic Area: Cost Behavior

16. The range within which fixed costs remain constant as volume of activity varies is known as the relevant range.
TRUE

this is the definition of a relevant range

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 5
Topic Area: Cost Behavior

17. The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
TRUE

need to distinguish between full cost (includes selling costs) and full absorption cost (does not included selling)

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

18. Variable marketing and administrative costs are included in determining full absorption costs.
FALSE

they are included in full cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

19. Revenue *minus* cost of goods sold *equals* contribution margin.
FALSE

this would equal gross margin

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 7
Topic Area: How to Make Cost Information More Useful for Managers

20. The primary goal of the cost accounting system is to provide managers with information to prepare their annual financial statements.
FALSE

to provide managers with information for making decisions

AACSB: Analytic
AICPA: FN-Decision Making
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 7
Topic Area: How to Make Cost Information More Useful for Managers

Multiple Choice Questions

21. Which of the following statements is (are) true?
(1). An asset is a cost that will be matched with revenues in a future accounting period.
(2). Opportunity costs are recorded as intangible assets in the current accounting period.
A. Only (1) is true.
B. Only (2) is true.
C. Both (1) and (2) are true.
D. Neither (1) nor (2) are true.

opportunity costs are not recorded

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 1
Topic Area: Cost versus Expenses

22. Which of the following statements is (are) false?
(1). In general, the term *expense* is used for managerial purposes, while the term *cost* refers to external financial reports.
(2). An opportunity cost is the benefit forgone by selecting one alternative over another.
A. Only (1) is false.
B. Only (2) is false.
C. Both (1) and (2) are false.
D. Neither (1) nor (2) are false.

expense is for external financial statements, (2) is true

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 1
Topic Area: Cost versus Expenses

23. Which of the following best distinguishes an opportunity cost from an outlay cost?
A. Opportunity costs are recorded, whereas outlay costs are not.
B. Outlay costs are speculative in nature, whereas opportunity costs are easily traceable to products.
C. Opportunity costs have very little utility in practical applications, whereas outlay costs are always relevant.
D. Opportunity costs are sacrifices from foregone alternative uses of resources, whereas outlay costs are cash outflows.

these are definitions of the terms

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 1
Topic Area: Cost versus Expenses

24. Which of the following accounts would be a period cost rather than a product cost?
A. Depreciation on manufacturing machinery.
B. Maintenance on factory machines.
C. Production manager's salary.
D. Direct Labor.
E. Freight out.

freight out is a selling cost; all the others are production costs

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

25. A company which manufactures custom-made machinery routinely incurs sizable telephone costs in the process of taking sales orders from customers. Which of the following is a proper classification of this cost?
A. Product cost
B. Period cost
C. Conversion cost
D. Prime cost

this would be a selling cost rather than a production cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

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

wages of salespeople would be a selling cost which is a period cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

27. XYZ Company manufactures a single product. The product's prime costs consist of
A. direct material and direct labor.
B. direct material and factory overhead.
C. direct labor and factory overhead.
D. direct material, direct labor and factory overhead.
E. direct material, direct labor and variable factory overhead.

definition of prime cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

28. Which of the following costs is both a prime cost and a conversion cost?
A. direct materials
B. direct labor
C. manufacturing overhead
D. administrative costs
E. marketing costs

definition of prime and conversion cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

29. Marketing costs include all of the following except:
A. Advertising.
B. Shipping costs.
C. Sales commissions.
D. Legal and accounting fees.
E. Office space for sales department.

legal and accounting are administrative rather than marketing

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

30. Property taxes on the manufacturing facility are an element of

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

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

product cost since it is for manufacturing; taxes are indirect, so they are conversion costs

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Hard
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

31. Classifying a cost as either direct or indirect depends upon
A. whether an expenditure is unavoidable because it cannot be changed regardless of any action taken.
B. whether the cost is expensed in the period in which it is incurred.
C. the behavior of the cost in response to volume changes.
D. the cost object to which the cost is being related.

definition

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 3
Topic Area: Direct versus Indirect Costs

32. The beginning Work-in-Process inventory plus the total of the manufacturing costs equals
A. total finished goods during the period.
B. cost of goods sold for the period.
C. total work-in-process during the period.
D. cost of goods manufactured for the period.

definition

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

33. The cost of the direct labor will be treated as an expense on the income statement when the resulting:
A. payroll costs are paid.
B. payroll costs are incurred.
C. products are completed.
D. products are sold.

matching cost with sales

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

34. Inventoriable costs:
A. include only the prime costs of manufacturing a product.
B. include only the conversion costs of providing a service.
C. exclude fixed manufacturing costs.
D. are regarded as assets until the units are sold.
E. are regarded as expenses when the costs are incurred.

definition of asset

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

35. A product cost is deducted from revenue when
A. the finished goods are sold.
B. the expenditure is incurred.
C. the production process takes place.
D. the production process is completed.
E. the finished goods are transferred to the Finished Goods Inventory.

matching of cost with sales

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

36. The amount of direct materials issued to production is found by
A. subtracting ending work in process from total work in process during the period.
B. adding beginning direct materials inventory and the delivered cost of direct materials.
C. subtracting ending direct materials from direct materials available for production.
D. adding delivered cost of materials, labor, and manufacturing overhead.
E. subtracting purchases discounts and purchases returns and allowances from purchases of direct material plus freight-in.

flow of cost through inventory account

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

37. The beginning Finished Goods Inventory plus the cost of goods manufactured equals
A. ending finished goods inventory.
B. cost of goods sold for the period.
C. total work-in-process during the period.
D. total cost of goods manufactured for the period.
E. cost of goods available for sale for the period.

flow of cost through inventory account

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

38. Direct labor would be part of the cost of the ending inventory for which of these accounts?
A. Work-in-Process.
B. Finished Goods.
C. Direct Materials and Work-in-Process.
D. Work-in-Process and Finished Goods.
E. Direct Materials, Work-in-Process, and Finished Goods.

flow of cost through inventory account

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

39. The Work-in-Process Inventory of the Rapid Fabricating Corp. was $3,000 higher on December 31, 2010 than it was on January 1, 2010. This implies that in 2010
A. cost of goods manufactured was higher than cost of goods sold.
B. cost of goods manufactured was less than total manufacturing costs.
C. manufacturing costs were higher than cost of goods sold.
D. manufacturing costs were less than cost of goods manufactured.
E. cost of goods manufactured was less than cost of goods sold.

flow of cost through inventory account

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Hard
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

40. Which of the following is *not* a product cost under full-absorption costing?
A. Direct materials used in the current period
B. Rent for the warehouse used to store direct materials
C. Salaries paid to the top management in the company
D. Vacation pay accrued for the production workers

management salaries are a period cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

41. The term "gross margin" for a manufacturing firm refers to the excess of sales over:
A. cost of goods sold, excluding fixed indirect manufacturing costs.
B. all variable costs, including variable marketing and administrative costs.
C. cost of goods sold, including fixed indirect manufacturing costs.
D. variable costs, excluding variable marketing and administrative costs.
E. total manufacturing costs, including fixed indirect manufacturing costs.

definition of gross margin

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

42. How would property taxes paid on a factory building be classified in a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

taxes = fixed; manufacturing = product

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 5
Topic Area: Fixed versus Variable Costs

43. How would miscellaneous supplies used in assembling a product be classified for a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

supplies are probably variable, assembling = product

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Fixed versus Variable Costs

44. How would a 5% sales commission paid to sales personnel be classified in a manufacturing company?
A. Fixed, period cost.
B. Fixed, product cost.
C. Variable, period cost.
D. Variable, product cost.

a % implies a variable cost, sales = period

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Fixed versus Variable Costs

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

	Nurse's Salaries	Film and Other Materials Used in Radiology
a.	Fixed cost	Fixed cost
b.	Fixed cost	Variable cost
c.	Variable cost	Fixed cost
d.	Variable cost	Variable cost
e.	Mixed cost	Mixed cost

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

nurses = step fixed cost, film = consumable, variable

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Fixed versus Variable Costs

46. Pete's Pizza Place has four pizza makers and ten other employees who take orders from customers and perform other tasks. The four pizza makers and the other employees are paid an hourly wage. How would one classify (1) the wages paid to the pizza makers and other employees and (2) materials (e.g., cheeses, sauce, etc.) used to make the pizza? Assume the activity is the number of pizzas made.

	Employees' Wages	Materials to make the pizza
a.	Fixed cost	Fixed cost
b	Fixed cost	Variable cost
c.	Variable cost	Fixed cost
d.	Mixed cost	Variable cost
e.	Mixed cost	Mixed cost

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

employees = minimum staffing need would imply fixed, the more pizzas sold, the more employees, therefore it is both fixed & variable, or mixed; materials = variable

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Fixed versus Variable Costs

47. Which of the following statements is (are) true?
(1). The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
(2). The fixed cost per unit is considered constant despite changes in volume of activity within the relevant range.
A. Only (1) is true.
B. Only (2) is true.
C. Both (1) and (2) are true.
D. Neither (1) nor (2) are true.

part (1) true—full cost is both product & selling; part (2) false because of per unit—fixed are constant in total

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

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

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

A. $298,800
B. $290,800
C. $282,100
D. $304,000

$304,000 + 6,700 - 3,500 - 8,400 = $298,800

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

49. A company had beginning inventories as follows: Direct Materials, $300; Work-in-Process, $500; Finished Goods, $700. It had ending inventories as follows: Direct Materials, $400; Work-in-Process, $600; Finished Goods, $800. Material Purchases (net including freight) were $1,400, Direct Labor $1,500, and Manufacturing Overhead $1,600. What is the Cost of Goods Sold for the period?
A. $4,100.
B. $4,200.
C. $4,300.
D. $4,400.

$300 + 1,400 - 400 = $1,300 (Direct materials used in production)
$500 + 1,300 + 1,500 + 1,600 -600 = $4,300 (CoGM)
$700 + 4,300 - 800 = $4,200

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

50. Compute the Cost of Goods Sold for 2008 using the following information:

Direct Materials, January 01, 2008	$40,000
Work-in-Process, December 31, 2008	69,000
Direct Labor	48,500
Finished Goods, December 31,2008	105,000
Finished Goods, January 01, 2008	128,000
Manufacturing Overhead	72,500
Direct Materials, December 31,2008	43,000
Work-in Process, January 01, 2008	87,000
Purchases of direct material	75,000

A. $244,000
B. $234,000
C. $211,000
D. $198,000
E. $188,000

$40,000 + 75,000 - 43,000 = $72,000 (Direct materials used in production)
$87,000 + 72,000 + 48,500 + 72,500 - 69,000 = $211,000 (CoGM)
$128,000 + 211,000 - 105,000 = $234,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

51. Seiler Company has the following information:

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

What was the direct labor for the period?
A. $5,500.
B. $5,800.
C. $6,300.
D. $6,800.
E. $7,500.

$500 + 7,700 - 1,500 = $6,700 (Direct materials used in production)
$400 + CoGM - 900 = $15,600; CoGM = $16,100
$300 + 6,700 + Direct Labor + 4,300 - 700 = $16,100; Direct Labor = $5,500

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Hard
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

52. Seiler Company has the following information:

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

What was the cost of goods available for sale for the period?
A. $16,800
B. $16,500
C. $16,100
D. $15,100

$400 + CoGM - 900 = $15,600; CoGM = $16,100
$400 + 16,100 = $16,500

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

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

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

What are the estimated conversion costs per unit?
A. $35
B. $41
C. $44
D. $48
E. $67

$20 + 15 + 6 = $41

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

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

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

What are the estimated prime costs per unit?

A. $73
B. $32
C. $67
D. $52
E. $76

$32 + 20 = $52

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

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

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

What are the estimated variable costs per unit?
A. $70
B. $38
C. $67
D. $52
E. $18

$32 + 20 + 15 + 3 = $70

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Cost Behavior

56. Calculate the conversion costs from the following information:

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

A. $3,000
B. $4,000
C. $4,500
D. $5,000
E. $7,000

$1,500 + 1,000 + 2,000 = $4,500

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

57. During the year, a manufacturing company had the following operating results:

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

What is the cost of goods manufactured for the year?
A. $1,011,000
B. $1,134,000
C. $1,033,000
D. $1,112,000

$45,000 + 308,000 + 475,000 + 250,000 - 67,000 = $1,011,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

58. During April, the CJG Manufacturing Company had the following operating results:

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

What is the cost of goods manufactured for April?

A. $900,000
B. $875,000
C. $925,000
D. $905,000

$1,500,000 - 600,000 = $900,000 (CoGS) $125,000 + CoGM - 100,000 = $900,000; CoGM = $875,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Hard
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

59. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the variable manufacturing cost per unit?

A. $380
B. $430
C. $480
D. $730

$200 + 100 + 80 = $380

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Easy
Learning Objective: 6
Topic Area: Components of Product Costs

60. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the total manufacturing cost per unit?

A. $380
B. $430
C. $480
D. $730

$200 + 100 + 80 + ($200,000/2,000) = $480

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Easy
Learning Objective: 6
Topic Area: Components of Product Costs

61. Laner Company has the following data for the production and sale of 2,000 units.

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

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

A. $430
B. $480
C. $530
D. $730

$200 + 100 + 80 + ($200,000/2,000) + 50 + ($400,000/2,000) = $730

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

62. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the contribution margin per unit?

A. $70
B. $320
C. $370
D. $430

$800 - 200 - 100 - 80 - 50 = $370

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Easy
Learning Objective: 6
Topic Area: Components of Product Costs

63. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the conversion cost per unit?

A. $100
B. $180
C. $280
D. $380

$100 + 80 + ($200,000/2,000) = $280

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

64. Laner Company has the following data for the production and sale of 2,000 units.

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

What is the prime cost per unit?

A. $100
B. $280
C. $300
D. $480

$200 + 100 = $300

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

65. The following information was collected from the accounting records of the CJG 65 for 3,000 units:

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

What is CJG's total cost per unit?
A. $180.
B. $200.
C. $210.
D. $250.

$80 + 40 + 60 + ($90,000/3,000) + 20 + ($60,000/3,000) = $250

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

66. The difference between variable costs and fixed costs is (CMA adapted)
A. Unit variable costs fluctuate and unit fixed costs remain constant.
B. Unit variable costs are fixed over the relevant range and unit fixed costs are variable.
C. Total variable costs are constant over the relevant range, while fixed costs change in the long-term.
D. Total variable costs are variable over the relevant range but fixed in the long-term, while fixed costs never change.
E. Unit variable costs change in varying increments, while unit fixed costs change in equal increments.

unit variable costs are constant, total variable fluctuate; unit fixed costs fluctuate, total fixed are constant

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 5
Topic Area: Cost Behavior

67. Which one of the following costs is classified as a period cost? (CIA adapted)
A. The wages of the workers on the shipping docks who load completed products onto outgoing trucks.
B. The wages of a worker paid for idle time resulting from a machine breakdown in the molding department.
C. The payments for employee (fringe) benefits paid on behalf of the workers in the manufacturing plant.
D. The wages paid to workers for reworking defective products that failed the quality inspection upon completion.

shipping to customers is a selling (period) cost

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

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

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

Based upon this information, the manufacturing cost incurred during the month was:
A. $78,500.
B. $80,000.
C. $80,500.
D. $83,000.

$1,000 + 28,000 + 47,000 + 2,000 + 500 + 1,500 = $80,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Hard
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

69. Sarasota Company, (a merchandising Co.) has the following data pertaining to the year ended December 31, 2006: (CPA adapted)

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

What is the cost of goods sold for the year?
A. $385,000
B. $460,000
C. $485,000
D. $536,000

$170,000 + $450,000 + 50,000 - 210,000 = $460,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

70. The Southeastern Company's manufacturing costs for the third quarter of 2008 were as follows: (CPA adapted)

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

What amount should be considered product costs for external reporting purposes?
A. $700,000
B. $800,000
C. $880,000
D. $898,000

$700,000 + 100,000 + 80,000 + 18,000 = $898,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

Makwa Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.
Makwa's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are not allocated to individual products.

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

71. For Makwa's Product L, the costs for direct material, machining labor, and assembly labor represent
A. Conversion costs.
B. Period costs.
C. Prime costs.
D. Common costs.
E. Fixed costs.

materials + labor = prime

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

72. The difference between the $100 estimated selling price for Product W and its total cost of $88 represents
A. Contribution margin per unit.
B. Gross margin per unit.
C. Variable cost per unit.
D. Operating profit per unit.
E. Net income per unit.

definition of gross margin

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 6
Topic Area: Components of Product Costs

73. The total overhead cost of $27 for Makwa's Product W is a
A. Sunk cost.
B. Opportunity cost.
C. Variable cost.
D. Mixed cost.
E. Fixed cost.

includes both fixed and variable

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 5
Topic Area: Cost Behavior

74. Research and development costs for Makwa's two new products are
A. Prime costs.
B. Conversion costs.
C. Opportunity costs.
D. Sunk costs.
E. Avoidable costs.

sunk costs = costs of the past

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 1
Topic Area: What Is a Cost?

75. The advertising costs for the product selected by Makwa will be
A. Prime costs.
B. Conversion costs.
C. Period costs.
D. Opportunity costs.
E. Product costs.

advertising = selling (period)

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

76. An opportunity cost is
A. a cost that is charged against revenue in an accounting period.
B. the foregone benefit from the best alternative course of action.
C. the excess of operating revenues over operating costs.
D. the cost assigned to the products sold during the period.
E. the cost assigned to the products produced during the period.

definition of opportunity cost; not attached to products

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 1
Topic Area: What Is a Cost?

77. The process of assigning indirect costs to products, services, people, business units, etc., is
A. cost object.
B. cost pool.
C. cost allocation.
D. opportunity cost.

definition of allocation

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Easy
Learning Objective: 3
Topic Area: Cost Allocation

78. A _____ is any end to which a cost is assigned.
A. cost object
B. cost pool
C. cost allocation
D. opportunity cost

definition of cost object

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Easy
Learning Objective: 3
Topic Area: Cost Allocation

79. A cost allocation rule is the method or process used to assign the costs in the _____ to the _____.
A. cost allocation; cost pool
B. cost pool; opportunity cost
C. cost object; cost pool
D. cost pool; cost object

definition of cost allocation rule

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Knowledge
Difficulty: Easy
Learning Objective: 3
Topic Area: Cost Allocation

80. Under full absorption costing, which of the following are included in product costs?
A. Only direct materials and direct labor.
B. Only variable manufacturing costs.
C. Only conversion costs.
D. All fixed and variable manufacturing costs.

full absorption includes all fixed & variable manufacturing

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 6
Topic Area: Components of Product Costs

81. Waupun Company has the following unit costs:

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

What cost per unit would be used for product costing under full absorption costing?
A. $29
B. $42
C. $52
D. $60

$13 + 12 + 17 + 10 = $52

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

82. Waupun Company has the following unit costs:

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

What cost per unit would be used for product costing under variable costing?
A. $29
B. $42
C. $52
D. $60

$13 + 12 + 17 = $42

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

83. Cheboygan Company has the following unit costs:

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

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

A. $170,000
B. $240,000
C. $290,000
D. $360,000

$100 - 25 - 20 - 19 - 12 = $24; $24 x 10,000 = $240,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

84. Cheboygan Company has the following unit costs:

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

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

A. $170,000
B. $240,000
C. $290,000
D. $360,000

$100 - 25 - 20 - 19 - 7 = $29; $29 x 10,000 = $290,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

85. Cheboygan Company has the following unit costs:

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

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

A. $170,000
B. $240,000
C. $290,000
D. $360,000

$100 - 25 - 20 - 19 - 12 - 7 = $17; $17 x 10,000 = $170,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

86. Cheboygan Company has the following unit costs:

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

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

A. $170,000
B. $240,000
C. $290,000
D. $360,000

$100 - 25 - 20 - 19 - 12 - 7 = $17; $17 x 10,000 = $170,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 6
Topic Area: Components of Product Costs

Essay Questions

87. The following information is available for the Netland Consulting Company for the fiscal year ended December 31.

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

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

(a) $809,000 - x = $170,000; x = $639,000
(b) $170,000 - x = $65,500; x = $104,500
(c) $65,500 - [(.34($65,500)] = x; x = $43,230

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Service Organizations

88. The following information is available for the Ridgedale Manufacturing Company for the fiscal year ended December 31.

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

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

(a) $900,000 - x = $315,000; x = $585,000
(b) $315,000 - x = $85,000; x = $230,000
(c) $85,000 - (.32 x $85,000) = $57,800

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Manufacturing Companies

89. The following information is available for the Roberts Retail Store for the fiscal year ended December 31.

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

Required:
(a) Prepare a cost of goods sold statement for Roberts Retail Store.
(b) Compute the gross margin for the fiscal year ended December 31.

(a)

Beginning inventory		$ 79,000
Cost of goods purchased:		
Merchandise (cost)	$450,000	
Purchase returns	(6,200)	
Purchase discounts	(15,000)	
Transportation-in costs	8,900	
Total cost of goods purchased		437,700
Cost of goods available for sale		516,700
Ending inventory		(100,100)
Cost of goods sold		$416,600

(b)

Sales revenue (gross)	$800,000	
Less sales discounts	(12,500)	
Sales revenues (net)		$787,500
Cost of goods sold		416,600
Gross margin		$370,900

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

90. Required:
For each of the following costs incurred in a manufacturing company, indicate whether the costs are (a) fixed or variable and (b) product costs or period costs.

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

* Straight-line depreciation method used.

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

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 4
Learning Objective: 5
Topic Area: Cost Behavior

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

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

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

Required:
Complete the answer sheet that follows by placing an "X" under each heading that identifies the cost involved. The "X's" can be placed under *more than one heading* for a single cost, e.g., a cost might be a variable cost, and an overhead cost.

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

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

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Learning Objective: 5
Topic Area: Details of Manufacturing Cost Flows

92. The following cost and inventory data were taken from the records of the Beca Company for the year:

Costs incurred:

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

Inventories:

	January 1	December31
Direct materials	$9,000	$11,000
Work in process	6,000	21,000
Finished goods	69,000	24,000

Required:

(a) Compute the cost of goods manufactured.

(b) Prepare a cost of goods sold statement.

(a)

Beginning work in process inventory			$ 6,000
Manufacturing costs during the year:			
Direct materials			
Beginning inventory	$ 9,000		
Purchases (net)	124,000		
Direct materials available	133,000		
Ending inventory	- 11,000		
Direct materials put into production		122,000	
Direct labor		80,000	
Manufacturing overhead			
Depreciation	$ 30,000		
Supplies	1,500		
Maintenance	20,000		
Utilities	8,000		
Indirect labor	54,500		
Rent	70,000		
Total manufacturing overhead		184,000	
Total manufacturing costs incurred			386,000
Ending work in process inventory			- 21,000
Cost of goods manufactured			$371,000

(b)

Beginning finished goods inventory	$ 69,000
Cost of goods manufactured	371,000
Cost of goods available for sale	440,000
Ending finished goods inventory	- 24,000
Cost of goods sold	$416,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 3
Topic Area: Cost Allocation

93. The Matter Manufacturing Company provided you with the following information for the fiscal year ended December 31.

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

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

(a) ($250,800 + 1,750,200 - 169,400) + 1,004,300 + 2,693,400 = x; x = $5,529,300
(b) $101,000 + 5,529,300 = x; x = $5,630,300
(c) $101,000 + 5,529,300 - 57,900 = x; x = $5,572,400
(d) $307,400 + 5,572,400 - 511,000 = x; x = $5,368,800
(e) ($250,800 + 1,750,200 - 169,400) + 1,004,300 = x; x = $2,835,900
(f) $1,004,300 + 2,693,400 = x; x = $3,697,700

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 4
Learning Objective: 5
Topic Area: Presentation of Costs in Financial Statements

94. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July:

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

Required: Compute the following *per unit* items, assuming the company produced and sold 5,000 units at a price of $210.00 per unit.
(a) Total variable cost
(b) Variable inventoriable cost
(c) Full absorption cost
(d) Full cost
(e) Contribution margin
(f) Gross margin
(g) Profit margin

(a) $84.75 + 27.50 + 14.25 + 5.30 + 2.90 = x; x = $134.70
(b) $84.75 + 27.50 + 14.25 = x; x = $126.50
(c) $84.75 + 27.50 + 14.25 + ($120,000/5,000) = x; x = $150.50
(d) $84.75 + 27.50 + 14.25 + 5.30 + 2.90 + [(120,000 + 50,000 + 75,000)/5,000] = x; x = $183.70
(e) $210.00 - (84.75 + 27.50 + 14.25 + 5.30 + 2.90) = x; x = $75.30
(f) $210.00 - [84.75 + 27.50 + 14.25 + (120,000/5,000)] x; x = $59.50
(g) $210.00 - $84.75 + 27.50 + 14.25 + 5.30 + 2.90 + [(120,000 + 50,000 + 75,000)/5,000] = x; x = $26.30

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 4
Learning Objective: 5
Topic Area: Details of Manufacturing Cost Flows

95. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July:

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

Required: Assuming the company produced and sold 5,000 units, and there were no units in inventory on July 1, prepare the following income statements for the month of July:
(a) Contribution margin income statement.
(b) Gross margin income statement.

(a)

Revenues		$1,050,000
Variable costs:		
Direct materials	$423,750	
Direct labor	137,500	
Manufacturing overhead	71,250	
Marketing costs	26,500	
Administrative costs	14,500	
Total variable costs		673,500
Contribution margin		376,500
Fixed costs:		
Manufacturing overhead	120,000	
Marketing costs	50,000	
Administrative costs	75,000	
Total fixed costs		245,000
Operating profits		$ 131,500

(b)

Revenues		$1,050,000
Cost of goods sold:		
Direct materials	$423,750	
Direct labor	137,500	
Mfg overhead	191,250	
Cost of goods sold		752,500
Gross margin		297,500
Expenses:		
Marketing costs	76,500	
Administrative costs	89,500	
Total expenses		166,000
Operating profits		$ 131,500

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 7
Topic Area: How to Make Cost Information More Useful for Managers

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

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

Required: Compute the following amounts for July, assuming 30,000 baseballs were produced and sold: (Assume normal production ranges from 15,000 to 40,000 baseballs)
(a) Total manufacturing costs.
(b) Total conversion costs.
(c) Period costs per unit.
(d) Full costs per unit.

(a) [($500,000 + 250,000 + 25,000 + 37,500 + 50,000)/25,000] = Variable costs per unit
Variable cost per unit = $34.50
($34.50 ×30,000) + (50,000 + 12,500 + 125,000 + 68,000 + 62,500) = Total mfg. costs
Total manufacturing costs = $1,035,000 + 318,000 = $1,353,000
(b) [($250,000 + 25,000 + 37,500 + 50,000)/25,000] = Conversion costs per unit
Conversion costs per unit = $14.50
(14.50 × 30,000) + (50,000 + 12,500 + 125,000 + 68,000 + 62,500) = Total costs
Total conversion costs = $435,000 + 318,000 = $753,000
(c) ($149,150 + 30,000 + 48,800)/23,500 = Period costs per unit
Period costs per unit = $9.70
($9.70 × 30,000) + (300,000 + 48,000) = Total period costs
Total period costs = $639,000
$639,000/30,000 = Period costs per unit
Period costs per unit = $21.30
(d) ($1,353,000/30,000) + $21.30 = Full costs per unit
Full costs per unit = $66.40

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Hard
Learning Objective: 3
Learning Objective: 4
Learning Objective: 5
Topic Area: Details of Manufacturing Cost Flows

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

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

(a) ($x + 16,100 - 4,850) = $15,300; x = $4,050
(b) $2,700 + 55,550 - 3,800 = x; x = $54,450
(c) $103,300 - 56,050 = x; x = $47,250
(d) $x + 30,486 - 4,928 = 30,464; x = $4,906
(e) $3,920 + 13,440 - 3,248 = x; x = $14,112
(f) $x - 30,464 = 18,368; x = $48,832
(g) $68,744 + 129,688 + x = 320,424; x = $121,992

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

98. The following data appeared in Hunter Company's records on December 31:

Direct materials inventory, December 31	$ 535,500
Direct materials purchased during the year	2,268,000
Finished goods inventory, December 31	567,000
Indirect labor	201,600
Direct labor	2,520,000
Factory heat, light, and power	234,360
Factory depreciation	393,900
Administrative salaries	323,820
Miscellaneous factory cost	200,970
Marketing costs	233,100
Other administrative costs	113,400
Maintenance on factory equipment	76,230
Insurance on factory equipment	119,700
Distribution costs	10,080
Taxes on manufacturing property	82,530
Legal fees on customer complaint	51,660
Direct materials put into production	2,407,230
Work-in-process inventory, December 31	154,980

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

Required: ***Prepare a cost of goods sold statement and an income statement.***

Panel A:

Beginning Work-in-process inventory			$ 90,650
Manufacturing costs during the year:			
Direct materials:			
Beginning inventory (not given)	$674,730		
Purchases (net)	2,268,000		
Direct materials available	2,942,730		
Ending inventory	- 535,500		
Direct materials put into production		2,407,230	
Direct labor		2,520,000	
Manufacturing overhead:			
Depreciation	$396,900		
Insurance	119,700		
Maintenance	76,230		
Plant heat, light, and power	234,360		
Indirect labor	201,600		
Property taxes	82,530		
Miscellaneous	200,970		
Total manufacturing overhead		1,312,290	
Total manufacturing costs incurred			6,239,520
Total work in process during the year			6,330,170
Ending Work-in-process inventory			- 154,980
Cost of goods manufactured			$6,175,190

Panel B:

Beginning Finished goods inventory	$ 280,000	
Cost of goods manufactured	6,175,190	
Cost of goods available for sale	6,455,190	
Ending Finished goods inventory	- 567,000	
Cost of goods sold	$5,888,190	

Panel C:

Revenues		$6,687,500
Cost of goods sold		5,888,190
Gross margin		799,310
Expenses:		
Marketing costs [$233,100 + 10,080]	243,180	
Administrative costs [$113,400 + 323,820 + 51,660]	488,880	
Total expenses		732,060
Operating profit		$ 67,250

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Learning Objective: 3
Topic Area: Presentation of Costs in Financial Statements

99. The information below has been taken from the cost records of Scottso Corp. for the past year:

Raw materials used in production		$326
Total manufacturing costs charged to production during the year (includes $135 of factory overhead)		686
Cost of goods available for sale		826
Selling & administrative expenses		25
Inventories:	Beginning	Ending
Direct materials	75	85
Work in process	80	30
Finished goods	90	110

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

a. $75 + x - 85 = 326; x = $336
b. $326 + x + 135 = $686; x = $225
c. $80 + 686 - 30 = $736
d. $826 - 110 = $716

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

100. Information from the records of the Garver Production Company for the month of January is as follows:

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

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

Required:
a. Prepare a statement of cost of goods manufactured for the month of January.
b. Prepare an income statement for the month of January.

a.

Beginning direct materials	$ 8,000	
Purchases of direct materials	18,000	
Less ending direct materials	- 8,700	
Direct materials used		17,300
Direct labor		10,400

Overhead:

Indirect labor	5,000	
Depreciation on machinery	3,000	
Rent on building	7,000	
Total overhead		15,000
Costs added during month		42,700
Beginning work in process		2,100
Less ending work in process		- 3,200
Cost of goods manufactured		41,600

b.

Sales		$ 55,300
Cost of goods sold:		
Beginning Finished goods	5,000	
Cost of goods manufactured	41,600	
Less ending finished goods	- 5,700	
Cost of goods sold		40,900
Gross margin		14,400
Selling & administrative expenses		6,300
Operating profit		8,100

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Presentation of Costs in Financial Statements

101. The information below has been taken from the cost records of Benno Corp. for the past year:

Raw materials used in production		$572
Total manufacturing costs charged to production during the year (includes $255 of factory overhead)		1,095
Cost of goods available for sale		1,415
Selling & administrative expenses		255
Inventories:	Beginning	Ending
Direct materials	175	155
Work in process	220	190
Finished goods	290	310

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

a. $175 + x - 155 = 572; x = $552
b. $572 + x + 255 = $1,095; x = $268
c. $220 + 1,095 - 190 = $1,125
d. $1,415 - 310 = $1,105

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

102. Information from the records of the Seiler Production Company for the month of July is as follows:

July is as follows:

Purchases of direct materials		$24,000
Indirect labor		6,500
Direct labor		13,200
Depreciation on factory machinery		3,600
Sales		75,300
Selling and administrative expenses		8,900
Rent on factory building		8,400
Inventories	January 1	January 31
Direct materials	$8,000	$6,700
Work-in-process	1,100	1,600
Finished goods	9,000	6,800

Required:
a. Prepare a statement of cost of goods manufactured for the month of July.
b. Prepare an income statement for the month of July.

a.

Beginning direct materials	$ 8,000	
Purchases of direct materials	24,000	
Less ending direct materials	- 6,700	
Direct materials used		25,300
Direct labor		13,200
Overhead:		
Indirect labor	6,500	
Depreciation on machinery	3,600	
Rent on building	8,400	
Total overhead		18,500
Costs added during month		57,000
Beginning work in process		1,100
Less ending work in process		- 1,600
Cost of goods manufactured		56,500

b.

Sales		$ 75,300
Cost of goods sold:		
Beginning Finished goods	9,000	
Cost of goods manufactured	56,500	
Less ending finished goods	- 6,800	
Cost of goods sold		58,700
Gross margin		16,600
Selling & administrative expenses		8,900
Operating profit		7,700

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Presentation of Costs in Financial Statements

103. The Moundsview Company provided you with the following information for the fiscal year ended December 31.

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

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

(a) [$501,600 + 3,500,400 - 338,800] + 2,008,600 + 5,368,800 = x; x = $11,040,600
(b) $202,000 + 11,040,600 = x; x = $11,242,600
(c) $202,000 + 11,040,600 - 115,800 = x; x = $11,126,800
(d) $614,800 + 11,126,800 - 1,022,000 = x; x = $10,719,600
(e) [$501,600 + 3,500,400 - 338,800] + 2,008,600 = x: x = $5,671,800
(f) $2,008,600 + 5,368,800 = x; x = $7,377,400

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Presentation of Costs in Financial Statements

104. The Boyceville Machining Company provided you with the following information for the fiscal year ended December 31.

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

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

(a) [($125,400 + 875,100 - 84,700) + 502,150 + 1,364,700] = x; x = $2,782,650
(b) $50,500 + 2,782,650 = x; x = $2,833,150
(c) $50,500 + 2,782,650 - 28,950 = x; x = $2,804,200
(d) $153,700 + 2,804,200 - 255,500 = x; x = $2,702,400

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Medium
Learning Objective: 2
Learning Objective: 4
Topic Area: Presentation of Costs in Financial Statements

105. Finkler Retail has collected the following information for May:

Sales revenue	$ 1,650,000
Store rent	84,000
Utilities	57,200
Sales commissions	247,500
Merchandise inventory, 5/1	118,200
Merchandise inventory, 5/1	118,200
Freight-in	54,600
Administrative costs	115,100
Merchandise purchases	1,091,000

Required: Prepare an income statement for the month of May

Sales revenue		$ 1,650,000
Merchandise inv 5/1	118,200	
Purchases	1,091,000	
Freight-in	54,600	
Goods available for sale	1,263.800	
Less merchandise inv 5/31	- 124,600	
Cost of goods sold		1,139,200
Gross margin		510,800
Expenses:		
Sales commissions	247,500	
Store rent	84,000	
Utilities	57,200	
Administrative	115,100	
Total expenses		503,800
Operating profit		7,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

106. Fowler Retail has collected the following information for August:

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

Required: Prepare an income statement for the month of August.

Sales revenue		$ 1,155,000
Merchandise inv 8/1	87,220	
Purchases	763,700	
Freight-in	30,300	
Goods available for sale	881,220	
Less merchandise inv 5/31	- 82,740	
Cost of goods sold		798,480
Gross margin		356,520

Expenses:

Sales commissions	173,300	
Store rent	58,800	
Utilities	40,400	
Administrative	80,600	
Total expenses		353,100
Operating profit		3,420

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 2
Topic Area: Presentation of Costs in Financial Statements

107. Explain the difference between an outlay cost, and expense, and an opportunity cost.

An outlay cost is any cash outflow, either past, present or future. An expense is a cost that is charged against revenue in an accounting period. Not all outlay costs are expense—they may have future benefit in which case they are assets. An opportunity cost is not an outlay—it is the benefit that is forgone or not being received by choosing one alternative over another.

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 1
Topic Area: Cost versus Expenses

108. Explain the difference between a cost, a cost object, and a cost pool.

A cost is a sacrifice of resources. It may be either an outlay cost or an opportunity cost. A cost object is any end for which we want to know the cost. A cost pool is a collection of costs to be assigned to the cost objects.

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 3
Topic Area: Cost Allocation

109. Explain the difference between direct materials inventory, work in process inventory, finished goods inventory and cost of goods sold.

Direct materials inventory contains the raw materials (or the costs of the materials) that will be used in production. Work in process contains the product (or the accumulated costs) that has been started into production but are not yet completed. Finished goods contains the completed product (or the cost of it) but not yet sold. Cost of goods sold contains the costs associated with the product that has been sold.

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

110. Explain the difference between cost of goods manufactured and cost of goods sold.

Cost of goods manufactured consists of all the costs attached to the production completed during the period. Cost of goods manufactured is removed from the work in process account and added to the finished goods account. Cost of goods sold consists of the costs of the goods that are sold during the period. Cost of goods sold is removed from the finished goods account and expensed on the income statement.

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 4
Topic Area: Details of Manufacturing Cost Flows

111. Explain the difference between a direct cost and an indirect cost.

A direct cost is any cost that can be directly and unambiguously related to a cost object in an economic fashion. An indirect cost is any cost that cannot be directly related to a cost object.

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Comprehension
Difficulty: Medium
Learning Objective: 2
Topic Area: Direct and Indirect Manufacturing (Product) Costs