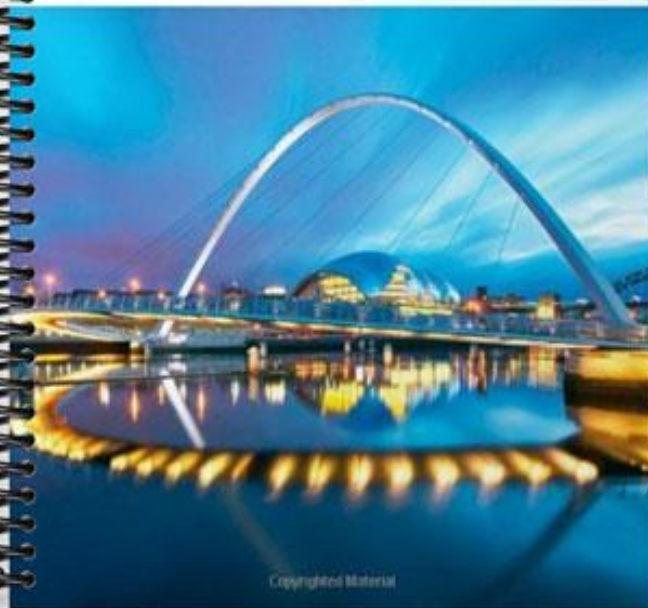


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11e

Managerial  
**Accounting**



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## Chapter 02 - Cost Concepts and Cost Allocation

Student: \_\_\_\_\_

1. Product costs for a manufacturing company consist of direct materials, direct labor, and overhead.  
True False
2. *Period cost* and *product cost* are synonymous terms.  
True False
3. The costs of marketing and delivering a product are not included in its inventory valuation.  
True False
4. For a manufactured product, all costs incurred to get the product ready for sale are included in the inventory value of the product.  
True False
5. Period costs flow through three types of inventory accounts before becoming part of the cost of goods sold amount.  
True False
6. Product costs could be found on both the balance sheet and the income statement.  
True False
7. Some period costs can be found in inventory accounts on the balance sheet.  
True False
8. Product costs could be reported as assets.  
True False
9. Period costs are consumed entirely in the current reporting period.  
True False
10. Both product costs and period costs could appear on the income statement.  
True False
11. Period costs are not considered when costing products for inventory.  
True False
12. *Inventoriable cost* is a synonym of *period cost*.  
True False

13. Manufacturing costs behave as variable or fixed costs.  
True False
14. The two primary types of cost behavior are fixed and variable.  
True False
15. Direct labor is a fixed cost because it always occurs.  
True False
16. Fixed costs per unit are constant along a defined range of activity.  
True False
17. The two types of cost behavior are value-adding and nonvalue-adding.  
True False
18. Equipment depreciation is an example of a direct product cost in a manufacturing company.  
True False
19. Indirect costs can be conveniently traced to a cost object.  
True False
20. Variable costs per unit change in an inversely proportional rate to changes in volume.  
True False
21. Total fixed costs remain constant within a defined time period or range of activity.  
True False
22. Depreciation on factory equipment is a value-adding cost.  
True False
23. Nonvalue-adding costs increase the cost of a product.  
True False
24. Direct materials are the only materials in a product.  
True False
25. Because it is invisible, direct labor cannot be traced to products.  
True False
26. All labor costs can be directly traced to finished products.  
True False
27. Both indirect materials and indirect labor are overhead costs.  
True False

28. Overhead can be traced to products once the products are completed.  
True False
29. Overhead costs are traced to products in the same way that direct materials and direct labor are traced.  
True False
30. Wages of machine operators and other workers involved in actually shaping the product are classified as direct labor costs.  
True False
31. Salaries of supervisory production personnel should be classified as direct labor costs.  
True False
32. A cost is classified as an overhead cost if it is not directly traceable to an end product or a cost object.  
True False
33. Lubrication used for machines is an example of a direct material.  
True False
34. Minor materials and other production supplies that cannot be conveniently or economically traced to specific products are accounted for as indirect materials.  
True False
35. Product unit cost comprises only direct materials and direct labor costs.  
True False
36. Product unit cost is computed by dividing cost of goods sold by the number of units sold.  
True False
37. Accounting personnel utilize estimates when deriving product unit costs in order to determine product pricing.  
True False
38. Sugar is an indirect cost in the manufacture of candy.  
True False
39. Property taxes and equipment depreciation are examples of indirect manufacturing costs.  
True False
40. The costs of labor for maintenance and inspections are examples of direct labor.  
True False
41.  $(\text{Direct Materials} + \text{Direct Labor} + \text{Overhead}) / \text{Total Number of Units Produced} = \text{Product Unit Cost}$ .  
True False

42. Normal costing is the sum of actual direct materials, actual direct labor, and actual overhead.  
True False
43. Standard costing is based on actual direct materials and direct labor plus estimated overhead.  
True False
44. The product costs that appear in the financial statements are actual product costs.  
True False
45. Both direct labor and indirect labor are recorded in the Work in Process Inventory account as the product is being manufactured.  
True False
46. Direct materials, direct labor, and overhead costs will most likely become part of the Cost of Goods Sold account balance in case of manufacturing companies.  
True False
47. At the end of an accounting period, the balance in the Finished Goods Inventory account is made up of the costs of products completed but not sold as of that date.  
True False
48. The costs of materials used in production are transferred from the Materials Inventory account directly to the Finished Goods Inventory account.  
True False
49. Factory employees' wages should be incorporated into the Work in Process Inventory account.  
True False
50. Indirect costs incurred are charged directly to the Work in Process Inventory account.  
True False
51. As units are completed, their costs are transferred from the Work in Process Inventory account to the Finished Goods Inventory account.  
True False
52. A materials request form is prepared whenever the purchasing department orders materials.  
True False
53. The job order cost card reflects the product cost per unit.  
True False
54. Materials costs flow from the Materials Inventory to the Work in Process Inventory to the Cost of Goods Sold account.  
True False

55. Total manufacturing costs increase the balance of the Work in Process Inventory account.  
True False
56. Cost of goods manufactured decreases the Work in Process Inventory account.  
True False
57. Overhead costs decrease the Work in Process Inventory account.  
True False
58. The key to the preparation of an income statement for a manufacturing company is proper determination of the cost of goods manufactured.  
True False
59. The expressions *total manufacturing costs* and *total cost of goods manufactured* are not synonymous.  
True False
60. The amount computed for cost of goods manufactured should be the same as the amount transferred from the materials inventory, direct labor, and overhead accounts into the Work in Process Inventory account.  
True False
61. The cost of goods manufactured is added to the beginning balance of Finished Goods Inventory to obtain the total cost of goods available for sale during the period.  
True False
62. The amount for cost of goods manufactured should be the same as the amount transferred from the Work in Process Inventory account to the Finished Goods Inventory account during the year.  
True False
63. Total manufacturing costs include all direct materials used as well as all direct labor costs and overhead costs incurred for a period.  
True False
64. The changes in Work in Process Inventory and total manufacturing costs for a period are used to compute cost of goods manufactured.  
True False
65. Manufacturing costs incurred in an accounting period cannot be included in cost of goods sold for the subsequent accounting period.  
True False
66. Cost of goods manufactured appears on the income statement of a manufacturing company in a similar manner as purchases appear on the income statement of a merchandising company.  
True False

67. Total manufacturing costs and the change in Finished Goods Inventory are used to compute cost of goods sold.  
True False
68. Total estimated overhead costs should be divided by actual direct labor hours to compute an overhead rate per direct labor hour.  
True False
69. If Company G uses an overhead rate of \$3.50 per direct labor dollar, and 63,500 hours of direct labor at \$9.00 per hour are actually incurred, \$222,250 of overhead costs are allocated for that period.  
True False
70. Overhead costs generally are estimated as part of the normal budgeting function.  
True False
71. By using a predetermined overhead rate and an allocation base, such as direct labor dollars or hours, one can assign overhead costs by debiting the Overhead account and crediting the Work in Process Inventory account.  
True False
72. As actual overhead costs are incurred, the Overhead account is debited.  
True False
73. If overhead has been overapplied during the period, the adjusting entry could include a credit to the Cost of Goods Sold account.  
True False
74. The entry to record the application of overhead costs includes a debit to the Overhead account.  
True False
75. The Overhead account is used to accumulate actual overhead costs.  
True False
76. The amount of underapplied or overapplied overhead is the difference between applied overhead and estimated overhead.  
True False
77. Actual overhead plus overapplied overhead equals applied overhead.  
True False
78. Overhead is said to be underapplied when actual overhead costs exceed the amount applied to production.  
True False
79. The product is the cost object when assigning indirect product costs.  
True False

80. A cost pool is a collection of overhead costs related to a cost object.  
True False
81. A cost driver is a cost pool that increases with activity.  
True False
82. Cost allocation requires pooling of overhead costs and the selection of a cost driver.  
True False
83. Calculation of a product's overhead rate is done during the accounting period.  
True False
84. The overhead rate is equal to the total estimated overhead costs divided by the actual cost driver level.  
True False
85. Applied overhead is equal to the overhead rate times the actual cost driver level.  
True False
86. Cost of Goods Sold is decreased for underapplied overhead.  
True False
87. A predetermined overhead rate allows managers to make more timely product pricing decisions.  
True False
88. An understated cost driver level will cause an understatement of the predetermined overhead rate.  
True False
89. The four most common activity bases used for overhead cost allocation purposes are direct labor dollars, units of output, water pressure, and machine hours.  
True False
90. A predetermined overhead rate times the amount of activity basis equals the overhead cost assigned to the product.  
True False
91. In the traditional manufacturing environment, overhead costs cannot be traced directly to products.  
True False
92. A single predetermined overhead rate is most appropriately used to assign overhead costs when a company produces a diverse set of products.  
True False
93. When a company uses a single predetermined overhead rate to assign overhead to production, only one cost pool is used.  
True False



94. Which of the following would *not* be included in the cost of a manufactured product?
- A. Cost to ship products to a customer
  - B. Cost of factory machinery used in production
  - C. Cost to design the product
  - D. Plant supervisor's salary
95. Which of the following is *not* included in the purchase cost of merchandise inventory?
- A. Purchase discounts
  - B. Overhead costs
  - C. Freight-in costs
  - D. Purchase returns and allowances
96. Which of the following is *not* a reason to classify costs as either product or period costs?
- A. To determine unit manufacturing costs
  - B. To determine if the costs are fixed or variable
  - C. To analyze costs for control purposes
  - D. To report production costs on the income statement
97. Depreciation expense could be
- A. a period cost.
  - B. a product cost.
  - C. a fixed cost.
  - D. all of these.
98. An example of a period cost is
- A. advertising costs.
  - B. indirect materials.
  - C. product design costs.
  - D. direct materials.
99. Another term for product cost is
- A. period cost.
  - B. direct cost.
  - C. value-adding cost.
  - D. inventoriable cost.
100. A projected cost for the future is a
- A. direct cost.
  - B. fixed cost.
  - C. inventoriable cost.
  - D. budgeted cost.
101. Which of the following is *not* a product cost?
- A. Depreciation of office furniture
  - B. Overhead
  - C. Direct labor
  - D. Direct materials

102. Which of the following is a typical example of a variable cost?
- A. Sales commissions
  - B. Rent
  - C. Depreciation
  - D. Salaries
103. Which of the following is a value-adding cost?
- A. Depreciation on personnel department equipment
  - B. Depreciation on factory equipment
  - C. Depreciation on office equipment
  - D. Depreciation on sales department equipment
104. Prime costs consist of
- A. direct materials and overhead.
  - B. direct labor and overhead.
  - C. direct labor and indirect labor.
  - D. direct materials and direct labor.
105. Conversion costs consist of
- A. direct materials and direct labor.
  - B. direct labor and overhead.
  - C. direct materials and overhead.
  - D. direct labor and indirect labor.
106. The three costs in every product are
- A. direct materials, work in process, and overhead.
  - B. direct materials, work in process, and finished goods.
  - C. direct materials, direct labor, and overhead.
  - D. direct materials, direct labor, and period costs.
107. Materials and supplies that cannot be traced conveniently to specific products are called
- A. indirect materials.
  - B. raw materials.
  - C. minor materials.
  - D. direct materials.
108. Which of the following terms does *not* apply to materials and supplies that cannot be traced conveniently to specific products?
- A. Indirect materials
  - B. Indirect manufacturing costs
  - C. Direct costs
  - D. Overhead
109. Costs that are identified with and traced to one product or a batch of products are called
- A. overhead costs.
  - B. indirect costs.
  - C. direct costs.
  - D. fixed costs.

110. The factory personnel whose wages are traceable directly to a product include
- A. maintenance personnel.
  - B. support personnel.
  - C. factory supervisors.
  - D. employees who help to shape the product.
111. Costs such as salary of supervisors and other support personnel, which are accounted for as overhead costs, are called
- A. direct labor.
  - B. sales assistance.
  - C. indirect labor.
  - D. variable labor.
112. All manufacturing costs incurred and assigned to products that are being produced are classified as
- A. variable costs.
  - B. allocated costs.
  - C. product costs.
  - D. overhead costs.
113. Which of the following labor costs would be included in direct labor?
- A. Maintenance workers
  - B. Machine operators
  - C. Managers and supervisors
  - D. Materials storeroom custodian
114. Which of the following costs is considered overhead?
- A. Indirect labor only
  - B. Indirect materials only
  - C. Indirect materials and indirect labor
  - D. None of these
115. Which of the following is *not* an example of indirect materials?
- A. Wood in a desk
  - B. Nails in a desk
  - C. Screws in a desk
  - D. Lubricants for machinery
116. The following are costs for a selected period: direct materials put into production, \$94,000; direct labor cost of converting materials into product, \$200,000; total indirect costs of manufacturing the product, \$40,000. What is the per unit cost of manufacturing 20,000 units in this period?
- A. \$4.70
  - B. \$16.70
  - C. \$8.70
  - D. \$12.70

117. Recorded costs for the DC5 Division, which manufactured 6,000 units of Product DC5 during the month, are as follows:

Direct materials	\$458,000
Direct labor	400,000
Indirect production costs	80,000
Supervisory services	40,000
Total	\$978,000

The per-unit cost of manufacturing Product DC5 this month is

- A. \$163.
  - B. \$152.
  - C. \$170.
  - D. \$150.
118. Which of the following is the formula used to compute a product's unit cost?
- A.  $(\text{Direct Materials} + \text{Direct Labor}) / \text{Number of Units Produced}$
  - B.  $(\text{Direct Materials} + \text{Direct Labor} + \text{Overhead}) / \text{Number of Units Produced}$
  - C.  $(\text{Direct Labor} + \text{Overhead}) / \text{Number of Units Produced}$
  - D.  $(\text{Indirect Materials} + \text{Indirect Labor} + \text{Overhead}) / \text{Number of Units Produced}$
119. Which of the following represents normal cost measurement?
- A. Actual Direct Materials + Actual Direct Labor + Actual Overhead
  - B. Actual Direct Materials + Actual Direct Labor + Estimated Overhead
  - C. Estimated Direct Materials + Estimated Direct Labor + Actual Overhead
  - D. Actual Direct Materials + Estimated Direct Labor + Estimated Overhead
120. When a company calculates its product unit cost using estimated costs, it is using which cost measurement method?
- A. Standard costing
  - B. Actual costing
  - C. Full costing
  - D. Normal costing
121. Which of the following types of product costs appear in the financial statements?
- A. Normal costs
  - B. Estimated costs
  - C. Standard costs
  - D. Actual costs
122. Which of the following documents initiates the purchasing of materials?
- A. Job order cost sheet
  - B. Receiving report
  - C. Purchase requisition
  - D. Purchase order
123. Overhead costs are *not*
- A. allocated to the Work in Process Inventory account.
  - B. charged directly to the Finished Goods Inventory account.
  - C. assigned to specific products.
  - D. considered product costs.

124. Which of the following contains period costs?
- A. Work in Process
  - B. Finished Goods
  - C. Cost of Goods Sold
  - D. Selling and administrative expenses
125. In a manufacturing environment, direct labor costs initially flow
- A. into the Materials Inventory account.
  - B. directly to Cost of Goods Sold.
  - C. into the Work in Process Inventory account.
  - D. into the Finished Goods Inventory account.
126. In a manufacturing environment, costs of materials initially flow
- A. into the Work in Process Inventory account.
  - B. into the Materials Inventory account.
  - C. directly to Cost of Goods Sold.
  - D. into the Finished Goods Inventory account.
127. All manufacturing costs that are assigned to completed (but unsold) products should be classified as
- A. materials inventory costs.
  - B. overhead costs.
  - C. work in process inventory costs.
  - D. finished goods inventory costs.
128. Completed but unsold units for a manufacturing firm would be included in which of the following accounts?
- A. Pending-Sale Inventory
  - B. Finished Goods Inventory
  - C. Work in Process Inventory
  - D. Materials Inventory
129. In which one of the following accounts would all three product costs *not* be found?
- A. Work in Process Inventory
  - B. Materials Inventory
  - C. Finished Goods Inventory
  - D. Cost of Goods Sold
130. Consider the following information: direct materials used totaled \$134,400; direct labor amounted to \$396,800; overhead was computed to be \$789,600; Work in Process Inventory on January 1, 2010, was \$378,200; and Work in Process Inventory on December 31, 2010, was \$385,200. What was the cost of goods manufactured?
- A. \$1,313,800
  - B. \$1,320,800
  - C. \$1,327,800
  - D. \$2,084,200
131. Which of the following should *not* be included in the computation of cost of goods manufactured?
- A. Power costs
  - B. Small tools expense
  - C. Total selling costs
  - D. Work in Process Inventory

132. Which of the following is *not* a product cost?
- A. Indirect materials costs
  - B. Packaging costs
  - C. Direct labor costs
  - D. Overhead costs
133. Which of the following is a source document for materials?
- A. Vendor's invoice
  - B. Materials request
  - C. Receiving report
  - D. All of these
134. The cost of goods manufactured decreases which of the following accounts?
- A. Work in Process Inventory
  - B. Finished Goods Inventory
  - C. Overhead
  - D. Cost of Goods Sold
135. Total manufacturing costs increase which of the following accounts?
- A. Cost of Goods Sold
  - B. Work in Process Inventory
  - C. Finished Goods Inventory
  - D. Overhead
136. Total manufacturing costs are equal to
- A. Direct Materials + Direct Labor + Selling Costs.
  - B. Direct Materials + Direct Labor + Overhead.
  - C. Direct Labor + Overhead + Selling Costs + Administrative Costs.
  - D. Product Costs + Period Costs.
137. Cost of goods manufactured is equal to
- A. Direct Materials + Direct Labor + Overhead.
  - B. Beginning Work in Process Inventory + Total Manufacturing Costs – Ending Work in Process Inventory.
  - C. Beginning Work in Process Inventory + Period Costs – Ending Work in Process Inventory.
  - D. Beginning Work in Process Inventory + Product Costs.
138. To reconcile total manufacturing costs with the total cost of goods manufactured during the period,
- A. subtract out all period costs from total manufacturing costs to arrive at cost of goods manufactured.
  - B. add beginning and subtract ending finished goods inventory to total manufacturing costs.
  - C. you must know how many goods were sold during the period.
  - D. add beginning and subtract ending work in process inventory to total manufacturing costs.
139. Which of the following financial statements is unique to a production-oriented company?
- A. Balance sheet
  - B. Statement of cash flows
  - C. Income statement
  - D. Statement of cost of goods manufactured

140. The Finished Goods Inventory and Cost of Goods Sold for a manufacturing company for the year 20xx are as follows: January 1 Finished Goods Inventory, \$382,500; December 31 Finished Goods Inventory, \$270,000; Cost of Goods Sold for the year, \$1,488,000. The cost of goods manufactured for the year was
- A. \$1,105,500.
  - B. \$610,500.
  - C. \$1,150,500.
  - D. \$1,375,500.
141. Which of the following account balances is *not* reported on the balance sheet?
- A. Materials Inventory
  - B. Manufacturing Patents
  - C. Cost of Goods Sold
  - D. Work in Process Inventory
142. The presentation of merchandise inventory and cost of goods sold in the financial statements of merchandising companies most nearly resembles the presentation of \_\_\_\_\_ inventory and cost of goods sold in the financial statements of manufacturing companies.
- A. materials
  - B. finished goods
  - C. manufacturing supplies
  - D. work in process
143. The beginning finished goods inventory for Boston Co. was \$401,050. Goods completed during the year were costed at \$783,700. The ending finished goods inventory was dangerously low, having been reduced to \$127,700. The cost of goods sold for the year for Boston Co. was
- A. \$800,150.
  - B. \$1,057,050.
  - C. \$656,000.
  - D. \$928,600.
144. From Jolier's year-end income statement, you observe that the finished goods inventory has doubled during the year. This would indicate that during the year Jolier
- A. sold more goods than were produced.
  - B. produced more goods than last year.
  - C. produced more goods than were sold.
  - D. sold more goods than last year.
145. The income statement for a manufacturing company usually contains a detailed computation of the
- A. total manufacturing cost.
  - B. cost of goods sold.
  - C. total cost of materials used.
  - D. cost of goods manufactured.
146. Cost allocation is the process of assigning which of the following costs to specific cost objects?
- A. Overhead
  - B. Direct labor
  - C. Selling and administrative expenses
  - D. Direct materials

147. Which of the following is a collection of overhead costs related to a cost object?

- A. Cost driver
- B. Cost function
- C. Cost equation
- D. Cost pool

148. Which of the following is an activity that causes changes in the amount of a cost pool?

- A. Cost element
- B. Cost function
- C. Cost driver
- D. Cost allocation

149. Which of the following represents the overhead applied to a product?

- A. Actual Overhead Rate  $\times$  Estimated Cost Driver Level
- B. Predetermined Overhead Rate  $\times$  Actual Cost Driver Level
- C. Predetermined Overhead Rate  $\times$  Estimated Cost Driver Level
- D. Actual Overhead Rate  $\times$  Actual Cost Driver Level

150. If the estimated cost driver level is overstated, the

- A. predetermined overhead rate will be understated.
- B. predetermined overhead rate will be overstated.
- C. product cost will be overstated.
- D. cost pool will be understated.

151. The following budget data are available for Howers Company:

Estimated direct labor hours	16,000
Estimated direct labor dollars	\$ 170,000
Estimated overhead costs	\$207,200

If overhead is to be applied based on direct labor hours, the predetermined overhead rate per hour (rounded) is

- A. \$13.45.
- B. \$12.95.
- C. \$12.05.
- D. \$11.45.

152. Which of the following is *not* considered important in the proper allocation of overhead costs?

- A. Forecasting production activity
- B. Estimating total overhead costs
- C. Selecting an appropriate activity base
- D. Estimating the selling price of the product

153. Which of the following results in a predetermined overhead rate?

- A. Estimated overhead divided by estimated units produced
- B. Estimated overhead divided by actual direct labor hours
- C. Actual units produced divided by estimated overhead
- D. Estimated direct labor dollars divided by estimated overhead



154. Predetermined overhead rates generally are useful for all but which of the following?

- A. Price determination
- B. Estimating production levels
- C. Inventory valuation
- D. Product costing

155. If overhead is applied on the basis of direct labor hours, and actual hours worked are less than budgeted, which of the following is true, assuming estimated overhead is correct?

- A. Overhead is probably overapplied.
- B. Overhead is probably underapplied.
- C. Applied overhead and actual overhead are equal.
- D. None of these is true.

156. Raisin Company's overhead cost was overapplied by \$4,300 in the current year. The estimated overhead was \$170,000, and the applied overhead was \$166,000. Compute the actual overhead.

- A. \$161,700
- B. \$166,700
- C. \$165,700
- D. \$174,300

157. The following information was taken from the cost records of the Krameer Company:

Estimated overhead	\$180,000
Actual overhead	\$178,000
Estimated direct labor hours	24,000
Actual direct labor hours	25,000

If overhead is applied based on direct labor hours, the company's overapplied or underapplied overhead was

- A. \$2,000 overapplied.
- B. \$2,000 underapplied.
- C. \$9,500 overapplied.
- D. \$9,500 underapplied.

158. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. Compute the predetermined overhead rate per direct labor hour.

- A. \$7.83
- B. \$8.38
- C. \$8.20
- D. \$8.00

159. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. The entry to assign overhead costs during the year would be
- A. Overhead                    720,000  
     Cash                                 720,000
- B. WIP Inventory                736,000  
     Overhead                                 736,000
- C. Cash                                 754,400  
     Overhead                                 754,400
- D. Overhead                         754,400  
     WIP Inventory                                 754,400
160. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. What is the amount of overapplied or underapplied overhead at the end of the year?
- A. \$34,400 overapplied  
 B. \$18,400 overapplied  
 C. \$34,400 underapplied  
 D. \$18,400 underapplied
161. When the amount of underapplied or overapplied overhead is small, it usually is written off to
- A. Work in Process Inventory.  
 B. Cost of Goods Sold.  
 C. Finished Goods Inventory.  
 D. selling expenses.
162. In accounting for an immaterial amount of overapplied overhead, which of the following is part of the adjusting entry?
- A. A debit to the Work in Process Inventory account  
 B. A debit to the Overhead account  
 C. A debit to the Cost of Goods Sold account  
 D. A credit to the Overhead account
163. Overhead has been underapplied when the
- A. Overhead account has a credit balance.  
 B. Overhead account has a debit balance.  
 C. company has overspent in the overhead cost area.  
 D. adjusting entry to account for the underapplied overhead involves a credit to Cost of Goods Sold.
164. Lopar Company uses a predetermined overhead rate based on direct labor dollars. Lopar Company estimated that its 2010 overhead would total \$938,000 and that 2010 direct labor costs would be \$670,000. During 2010, actual overhead costs were \$960,000, and actual direct labor costs were \$700,000. By how much was Lopar's overhead over- or underapplied?
- A. \$20,000 overapplied  
 B. \$20,000 underapplied  
 C. \$18,000 overapplied  
 D. \$10,000 underapplied



171. Complete the following chart by placing an “X” under the applicable column headings. Classify each cost as a fixed cost or a variable cost and as either a direct or indirect product cost or a period cost.

Item	Cost Behavior		Product Costs		Period Cost
	Fixed	Variable	Direct	Indirect	
Glue used in furniture					
Cost of workers sanding a product					
Wages of factory custodian					
Grapes used in jelly					
Rent of factory equipment					
Factory insurance					
Controller's salary					
Factory washroom supplies					
Sugar in candy products					
Wages of a machinist					
Office supplies used					

172. Complete the following chart by placing an “X” under the applicable column heading. Classify each cost as a fixed cost or variable cost and as either a direct or indirect product cost or a period cost.

Item	Cost Behavior		Product Costs		Period Cost
	Fixed	Variable	Direct	Indirect	
Assembly line workers					
Office salaries					
Factory supervisor					
Depreciation on factory					
Sales commissions					
Paper used to make books					
Factory property taxes					
Screws in a calculator					
Office Receptionist's payroll					
Wages of machineman					
Advertising					

173. The costs listed below are related to a manufacturer of all-natural ice cream. In the space provided, indicate whether the cost should be classified as direct materials (DM), direct labor (DL), or overhead (OH).

- \_\_\_\_\_ a. Maintenance on factory building
- \_\_\_\_\_ b. Cream
- \_\_\_\_\_ c. Mixing department wages
- \_\_\_\_\_ d. Vanilla
- \_\_\_\_\_ e. Factory supervisor's salary
- \_\_\_\_\_ f. Machine oil for mixing machines
- \_\_\_\_\_ g. Sugar
- \_\_\_\_\_ h. Machine operator wages
- \_\_\_\_\_ i. Factory maintenance labor
- \_\_\_\_\_ j. Depreciation on factory equipment

174. Identify the document needed to support each of the following activities in a manufacturing organization:

- \_\_\_\_\_ a. Placing an order for direct materials with a supplier
- \_\_\_\_\_ b. Recording direct labor time at the beginning and end of each work shift
- \_\_\_\_\_ c. Issuing direct materials into production
- \_\_\_\_\_ d. Recording the costs of a specific job requiring direct materials, direct labor, and overhead
- \_\_\_\_\_ e. Billing a customer for a completed order
- \_\_\_\_\_ f. Receiving direct materials at the shipping dock

175. Use the information below for the year ended December 31, 20xx, to prepare the statement of cost of goods manufactured.

<b>Inventories</b>	<b>Beginning</b>	<b>Ending</b>
Materials inventory	\$32,300	\$ 33,900
Work in process inventory	40,500	41,900
Direct materials purchased		158,300
Total direct labor costs		231,300
Total indirect labor costs		45,200
Utilities		27,100
Depreciation		36,200
Small tools		3,100
Factory insurance		1,800
Factory supervision		39,500
Miscellaneous overhead costs		6,200

176. Use the information below for the year ended December 31, 20xx, to prepare the statement of cost of goods manufactured.

<b>Inventories</b>	<b>Beginning</b>	<b>Ending</b>
Materials inventory	\$41,000	\$ 51,000
Work in process inventory	62,000	78,000
Direct materials purchased		258,000
Total direct labor costs		372,000
Total indirect labor costs		67,000
Utilities		41,000
Depreciation		54,000
Small tools		5,000
Factory insurance		3,000
Factory supervision		66,000
Miscellaneous overhead costs		11,000

177. Fill in the missing data for Company B:

	<b>Company B</b>
Direct materials used	\$ 9,000
Direct labor cost	4,000
Overhead	(a)
Total manufacturing costs	25,000
Work in process inventory, Jan. 1	1,000
Work in process inventory, Dec. 31	3,500
Sales revenue	40,000
Finished goods inventory, Jan. 1	(b)
Cost of goods manufactured	(c)
Cost of goods available for sale	(d)
Finished goods inventory, Dec. 31	4,000
Cost of goods sold	26,500
Gross margin	(e)
Operating expenses	(f)
Net operating income	5,500

178. Fill in the missing data for Company C:

	<b>Company C</b>
Direct materials used	\$ 6,000
Direct labor cost	(a)
Overhead	7,000
Total manufacturing costs	18,000
Work in process inventory, Jan. 1	2,000
Work in process inventory, Dec. 31	(b)
Sales revenue	30,000
Finished goods inventory, Jan. 1	7,000
Cost of goods manufactured	(c)
Cost of goods available for sale	23,000
Finished goods inventory, Dec. 31	(d)
Cost of goods sold	18,000
Gross margin	(e)
Operating expenses	(f)
Operating income	3,000

179. Taperno Manufacturing Company has made the following cost estimates for next year:

Direct labor	\$90,000
Direct materials	72,000
Indirect labor	19,200
Indirect materials	8,400
Depreciation—factory building	8,200
Depreciation—factory machinery	4,200
Depreciation—office equipment	500
Factory utilities	4,900
Factory property taxes	3,100
Selling expenses	25,000
Miscellaneous overhead costs	5,600
General and administrative expenses	19,000

The company applies overhead based on direct labor hours. The estimated direct labor hours for next year are 16,000 hours.

Compute the overhead application rate that will be used to apply overhead during the next year.

180. At the beginning of 2010, Zuir Company's accounting department calculated the following estimates for the coming year's production:

Estimated overhead	\$441,600
Direct labor hours	9,200 hr

During the year, Zuir Company experienced \$440,000 in actual overhead costs and actually worked 9,100 direct labor hours. Zuir applies overhead to production using a predetermined overhead rate based on direct labor hours.

- Calculate the predetermined overhead rate Zuir uses to apply overhead. (Show your computations.)
- By what amount was overhead over- or underapplied for 2010? (Show your computations.)
- Assuming the amount of over- or underapplied overhead is not significant, will the Cost of Goods Sold account be increased or decreased to correct the application of overhead?



181. The Sorrel Pharmaceuticals Corporation manufactures a variety of drugs that are marketed internationally. Inventories on May 31 and June 30 were as follows:

	May 31	June 30
Materials Inventory	\$354,100	\$327,400
Work in Process Inventory	112,600	116,400
Finished Goods Inventory	138,500	142,800

Purchases of materials for June were \$142,600. Direct labor costs were incurred and computed on the basis of 27,000 hours at \$8 per hour. Actual overhead costs incurred in June were as follows: operating supplies used, \$5,700; janitorial and materials handling labor, \$38,100; employee benefits, \$110,800; heat, light, and power, \$50,000; factory depreciation, \$8,400; property taxes, \$8,000; and expired portion of insurance premiums, \$12,000. Net sales for June were \$992,700. Selling and administrative expenses were \$165,000.

Prepare a statement of cost of goods manufactured for the month ended June 30.

182. As the management accountant for Bynami Enterprises, Inc., you have been asked to prepare a statement of cost of goods manufactured at the end of the first quarter. Account balances at that time were as follows:

Materials inventory, January 1, 20xx	\$ 510,500
Work in process inventory, January 1, 20xx	697,300
Finished goods inventory, January 1, 20xx	701,200
Direct materials purchased during the quarter	1,105,400
Direct labor costs	154,800
Depreciation expense, plant and equipment	16,200
Plant supervisors' salaries	50,600
Insurance expense, plant and equipment	1,100
Utilities expense, plant	4,000
Indirect labor costs	16,800
Manufacturing supplies expense	3,400
Small tools expense	1,500

March 31 inventories were as follows: materials, \$540,200; work in process, \$795,400; and finished goods, \$604,100. Prepare the statement of cost of goods manufactured for the first quarter of 20xx.

183. Yamishi Production had the following inventories for the first quarter of 20xx:

	Beginning	Ending
Materials	\$606,600	\$522,100
Work in process	312,100	280,800
Finished goods	416,100	540,200

Purchases of materials during the quarter were \$427,800. Total direct labor costs were incurred in the amount of \$1,482,000. Actual overhead costs were incurred as follows: operating supplies used, \$17,100; janitorial and maintenance, \$87,300; employee benefits, \$26,400; utilities, \$162,000; depreciation of factory, \$43,200; property taxes, \$24,000; factory insurance, \$29,000. Net sales for the quarter were \$3,562,200. Selling and administrative expenses were \$508,000. Income taxes should be computed at 40 percent.

Prepare a statement of cost of goods manufactured for the first quarter of 20xx.

184. The following information has been made available to you. Assume that overhead is applied on the basis of direct labor hours.

Estimated overhead	\$1,638,000
Estimated direct labor hours	390,000
Actual direct labor hours	442,000
Actual overhead	\$1,862,000

- Compute the predetermined overhead rate.
- Compute the amount of applied overhead for the year.
- Compute the amount of underapplied or overapplied overhead.

185. The following information has been made available to you. Assume that overhead is applied on the basis of direct labor hours.

Actual overhead	\$47,400
Estimated overhead	\$48,300
Actual direct labor hours	8,900
Estimated direct labor hours	9,200

- a. Compute the predetermined overhead rate.
- b. Compute overhead applied.
- c. Compute over- or underapplied overhead (indicate amount and direction).
- d. Indicate whether cost of goods sold should be increased or decreased to adjust the balance to actual costs.

186. The controller for Drisau Company is trying to decide whether or not the company should switch from the traditional approach of overhead cost allocation to the activity-based costing approach. She has gathered the following overhead data on the company's two products: estimated total overhead, \$180,000 (consisting of the \$70,000 for setups and \$110,000 for assembly); estimated direct labor hours (Product A, 6,000; Product B, 3,000); estimated number of setups (Product A, 750; Product B, 1,250); estimated number of machine hours used in assembly (Product A, 3,000; Product B, 5,000); estimated number of units produced (Product A, 500; Product B, 200).

Using the traditional approach:

- a. Calculate the predetermined overhead rate using direct labor hours as the cost driver.
- b. Compute the amount of overhead costs applied to each product in total and per unit.

187. Job 29 consists of 300 units and has total manufacturing costs of direct materials, \$4,500; direct labor, \$7,500; and overhead, \$3,600.

- a. What is the unit product cost?
- b. What are the prime costs per unit?
- c. What are the conversion costs per unit?

188. Compute the overhead rate per shipping request for the Shipping Department if the estimated overhead costs are \$18,290 and the number of estimated shipping requests is 3,100.

189. Dale, Smith, and Associates, a CPA firm, is trying to determine the hourly cost of its junior accountants in the auditing department. The following data have been gathered.

Monthly salaries for 4 juniors @ \$3,000 each	\$12,000	
Monthly auditing department overhead costs	\$83,160	
Average number of hours worked each month	800	hr

Assuming 40 percent of the monthly overhead costs for the auditing department are attributable to the junior accountants, compute the hourly cost of their services.

190. Calculate the amount of overhead costs applied to production if the predetermined overhead rate is \$4 per direct labor hour and 1,200 direct labor hours were worked.

## Chapter 02 - Cost Concepts and Cost Allocation **Key**

1. Product costs for a manufacturing company consist of direct materials, direct labor, and overhead.  
**TRUE**
2. *Period cost* and *product cost* are synonymous terms.  
**FALSE**
3. The costs of marketing and delivering a product are not included in its inventory valuation.  
**TRUE**
4. For a manufactured product, all costs incurred to get the product ready for sale are included in the inventory value of the product.  
**TRUE**
5. Period costs flow through three types of inventory accounts before becoming part of the cost of goods sold amount.  
**FALSE**
6. Product costs could be found on both the balance sheet and the income statement.  
**TRUE**
7. Some period costs can be found in inventory accounts on the balance sheet.  
**FALSE**
8. Product costs could be reported as assets.  
**TRUE**
9. Period costs are consumed entirely in the current reporting period.  
**TRUE**
10. Both product costs and period costs could appear on the income statement.  
**TRUE**
11. Period costs are not considered when costing products for inventory.  
**TRUE**
12. *Inventoriable cost* is a synonym of *period cost*.  
**FALSE**

13. Manufacturing costs behave as variable or fixed costs.  
**TRUE**
14. The two primary types of cost behavior are fixed and variable.  
**TRUE**
15. Direct labor is a fixed cost because it always occurs.  
**FALSE**
16. Fixed costs per unit are constant along a defined range of activity.  
**FALSE**
17. The two types of cost behavior are value-adding and nonvalue-adding.  
**FALSE**
18. Equipment depreciation is an example of a direct product cost in a manufacturing company.  
**FALSE**
19. Indirect costs can be conveniently traced to a cost object.  
**FALSE**
20. Variable costs per unit change in an inversely proportional rate to changes in volume.  
**FALSE**
21. Total fixed costs remain constant within a defined time period or range of activity.  
**TRUE**
22. Depreciation on factory equipment is a value-adding cost.  
**TRUE**
23. Nonvalue-adding costs increase the cost of a product.  
**TRUE**
24. Direct materials are the only materials in a product.  
**FALSE**
25. Because it is invisible, direct labor cannot be traced to products.  
**FALSE**
26. All labor costs can be directly traced to finished products.  
**FALSE**
27. Both indirect materials and indirect labor are overhead costs.  
**TRUE**

28. Overhead can be traced to products once the products are completed.  
**FALSE**
29. Overhead costs are traced to products in the same way that direct materials and direct labor are traced.  
**FALSE**
30. Wages of machine operators and other workers involved in actually shaping the product are classified as direct labor costs.  
**TRUE**
31. Salaries of supervisory production personnel should be classified as direct labor costs.  
**FALSE**
32. A cost is classified as an overhead cost if it is not directly traceable to an end product or a cost object.  
**TRUE**
33. Lubrication used for machines is an example of a direct material.  
**FALSE**
34. Minor materials and other production supplies that cannot be conveniently or economically traced to specific products are accounted for as indirect materials.  
**TRUE**
35. Product unit cost comprises only direct materials and direct labor costs.  
**FALSE**
36. Product unit cost is computed by dividing cost of goods sold by the number of units sold.  
**FALSE**
37. Accounting personnel utilize estimates when deriving product unit costs in order to determine product pricing.  
**TRUE**
38. Sugar is an indirect cost in the manufacture of candy.  
**FALSE**
39. Property taxes and equipment depreciation are examples of indirect manufacturing costs.  
**TRUE**
40. The costs of labor for maintenance and inspections are examples of direct labor.  
**FALSE**



41.  $(\text{Direct Materials} + \text{Direct Labor} + \text{Overhead}) / \text{Total Number of Units Produced} = \text{Product Unit Cost}$ .  
**TRUE**
42. Normal costing is the sum of actual direct materials, actual direct labor, and actual overhead.  
**FALSE**
43. Standard costing is based on actual direct materials and direct labor plus estimated overhead.  
**FALSE**
44. The product costs that appear in the financial statements are actual product costs.  
**TRUE**
45. Both direct labor and indirect labor are recorded in the Work in Process Inventory account as the product is being manufactured.  
**TRUE**
46. Direct materials, direct labor, and overhead costs will most likely become part of the Cost of Goods Sold account balance in case of manufacturing companies.  
**TRUE**
47. At the end of an accounting period, the balance in the Finished Goods Inventory account is made up of the costs of products completed but not sold as of that date.  
**TRUE**
48. The costs of materials used in production are transferred from the Materials Inventory account directly to the Finished Goods Inventory account.  
**FALSE**
49. Factory employees' wages should be incorporated into the Work in Process Inventory account.  
**TRUE**
50. Indirect costs incurred are charged directly to the Work in Process Inventory account.  
**FALSE**
51. As units are completed, their costs are transferred from the Work in Process Inventory account to the Finished Goods Inventory account.  
**TRUE**
52. A materials request form is prepared whenever the purchasing department orders materials.  
**FALSE**
53. The job order cost card reflects the product cost per unit.  
**TRUE**

54. Materials costs flow from the Materials Inventory to the Work in Process Inventory to the Cost of Goods Sold account.  
**FALSE**
55. Total manufacturing costs increase the balance of the Work in Process Inventory account.  
**TRUE**
56. Cost of goods manufactured decreases the Work in Process Inventory account.  
**TRUE**
57. Overhead costs decrease the Work in Process Inventory account.  
**FALSE**
58. The key to the preparation of an income statement for a manufacturing company is proper determination of the cost of goods manufactured.  
**TRUE**
59. The expressions *total manufacturing costs* and *total cost of goods manufactured* are not synonymous.  
**TRUE**
60. The amount computed for cost of goods manufactured should be the same as the amount transferred from the materials inventory, direct labor, and overhead accounts into the Work in Process Inventory account.  
**FALSE**
61. The cost of goods manufactured is added to the beginning balance of Finished Goods Inventory to obtain the total cost of goods available for sale during the period.  
**TRUE**
62. The amount for cost of goods manufactured should be the same as the amount transferred from the Work in Process Inventory account to the Finished Goods Inventory account during the year.  
**TRUE**
63. Total manufacturing costs include all direct materials used as well as all direct labor costs and overhead costs incurred for a period.  
**TRUE**
64. The changes in Work in Process Inventory and total manufacturing costs for a period are used to compute cost of goods manufactured.  
**TRUE**
65. Manufacturing costs incurred in an accounting period cannot be included in cost of goods sold for the subsequent accounting period.  
**FALSE**

66. Cost of goods manufactured appears on the income statement of a manufacturing company in a similar manner as purchases appear on the income statement of a merchandising company.  
**TRUE**
67. Total manufacturing costs and the change in Finished Goods Inventory are used to compute cost of goods sold.  
**FALSE**
68. Total estimated overhead costs should be divided by actual direct labor hours to compute an overhead rate per direct labor hour.  
**FALSE**
69. If Company G uses an overhead rate of \$3.50 per direct labor dollar, and 63,500 hours of direct labor at \$9.00 per hour are actually incurred, \$222,250 of overhead costs are allocated for that period.  
**FALSE**
70. Overhead costs generally are estimated as part of the normal budgeting function.  
**TRUE**
71. By using a predetermined overhead rate and an allocation base, such as direct labor dollars or hours, one can assign overhead costs by debiting the Overhead account and crediting the Work in Process Inventory account.  
**FALSE**
72. As actual overhead costs are incurred, the Overhead account is debited.  
**TRUE**
73. If overhead has been overapplied during the period, the adjusting entry could include a credit to the Cost of Goods Sold account.  
**TRUE**
74. The entry to record the application of overhead costs includes a debit to the Overhead account.  
**FALSE**
75. The Overhead account is used to accumulate actual overhead costs.  
**TRUE**
76. The amount of underapplied or overapplied overhead is the difference between applied overhead and estimated overhead.  
**FALSE**
77. Actual overhead plus overapplied overhead equals applied overhead.  
**TRUE**

78. Overhead is said to be underapplied when actual overhead costs exceed the amount applied to production.  
**TRUE**
79. The product is the cost object when assigning indirect product costs.  
**TRUE**
80. A cost pool is a collection of overhead costs related to a cost object.  
**TRUE**
81. A cost driver is a cost pool that increases with activity.  
**FALSE**
82. Cost allocation requires pooling of overhead costs and the selection of a cost driver.  
**TRUE**
83. Calculation of a product's overhead rate is done during the accounting period.  
**FALSE**
84. The overhead rate is equal to the total estimated overhead costs divided by the actual cost driver level.  
**FALSE**
85. Applied overhead is equal to the overhead rate times the actual cost driver level.  
**TRUE**
86. Cost of Goods Sold is decreased for underapplied overhead.  
**FALSE**
87. A predetermined overhead rate allows managers to make more timely product pricing decisions.  
**TRUE**
88. An understated cost driver level will cause an understatement of the predetermined overhead rate.  
**FALSE**
89. The four most common activity bases used for overhead cost allocation purposes are direct labor dollars, units of output, water pressure, and machine hours.  
**FALSE**
90. A predetermined overhead rate times the amount of activity basis equals the overhead cost assigned to the product.  
**TRUE**
91. In the traditional manufacturing environment, overhead costs cannot be traced directly to products.  
**TRUE**

92. A single predetermined overhead rate is most appropriately used to assign overhead costs when a company produces a diverse set of products.
- FALSE**
93. When a company uses a single predetermined overhead rate to assign overhead to production, only one cost pool is used.
- TRUE**
94. Which of the following would *not* be included in the cost of a manufactured product?
- A.** Cost to ship products to a customer  
B. Cost of factory machinery used in production  
C. Cost to design the product  
D. Plant supervisor's salary
95. Which of the following is *not* included in the purchase cost of merchandise inventory?
- A. Purchase discounts  
**B.** Overhead costs  
C. Freight-in costs  
D. Purchase returns and allowances
96. Which of the following is *not* a reason to classify costs as either product or period costs?
- A. To determine unit manufacturing costs  
**B.** To determine if the costs are fixed or variable  
C. To analyze costs for control purposes  
D. To report production costs on the income statement
97. Depreciation expense could be
- A. a period cost.  
B. a product cost.  
C. a fixed cost.  
**D.** all of these.
98. An example of a period cost is
- A.** advertising costs.  
B. indirect materials.  
C. product design costs.  
D. direct materials.
99. Another term for product cost is
- A. period cost.  
B. direct cost.  
C. value-adding cost.  
**D.** inventoriable cost.
100. A projected cost for the future is a
- A. direct cost.  
B. fixed cost.  
C. inventoriable cost.  
**D.** budgeted cost.

101. Which of the following is *not* a product cost?
- A. Depreciation of office furniture
  - B. Overhead
  - C. Direct labor
  - D. Direct materials
102. Which of the following is a typical example of a variable cost?
- A. Sales commissions
  - B. Rent
  - C. Depreciation
  - D. Salaries
103. Which of the following is a value-adding cost?
- A. Depreciation on personnel department equipment
  - B. Depreciation on factory equipment
  - C. Depreciation on office equipment
  - D. Depreciation on sales department equipment
104. Prime costs consist of
- A. direct materials and overhead.
  - B. direct labor and overhead.
  - C. direct labor and indirect labor.
  - D. direct materials and direct labor.
105. Conversion costs consist of
- A. direct materials and direct labor.
  - B. direct labor and overhead.
  - C. direct materials and overhead.
  - D. direct labor and indirect labor.
106. The three costs in every product are
- A. direct materials, work in process, and overhead.
  - B. direct materials, work in process, and finished goods.
  - C. direct materials, direct labor, and overhead.
  - D. direct materials, direct labor, and period costs.
107. Materials and supplies that cannot be traced conveniently to specific products are called
- A. indirect materials.
  - B. raw materials.
  - C. minor materials.
  - D. direct materials.
108. Which of the following terms does *not* apply to materials and supplies that cannot be traced conveniently to specific products?
- A. Indirect materials
  - B. Indirect manufacturing costs
  - C. Direct costs
  - D. Overhead

109. Costs that are identified with and traced to one product or a batch of products are called
- A. overhead costs.
  - B. indirect costs.
  - C. direct costs.**
  - D. fixed costs.
110. The factory personnel whose wages are traceable directly to a product include
- A. maintenance personnel.
  - B. support personnel.
  - C. factory supervisors.
  - D. employees who help to shape the product.**
111. Costs such as salary of supervisors and other support personnel, which are accounted for as overhead costs, are called
- A. direct labor.
  - B. sales assistance.
  - C. indirect labor.**
  - D. variable labor.
112. All manufacturing costs incurred and assigned to products that are being produced are classified as
- A. variable costs.
  - B. allocated costs.
  - C. product costs.**
  - D. overhead costs.
113. Which of the following labor costs would be included in direct labor?
- A. Maintenance workers
  - B. Machine operators**
  - C. Managers and supervisors
  - D. Materials storeroom custodian
114. Which of the following costs is considered overhead?
- A. Indirect labor only
  - B. Indirect materials only
  - C. Indirect materials and indirect labor**
  - D. None of these
115. Which of the following is *not* an example of indirect materials?
- A. Wood in a desk**
  - B. Nails in a desk
  - C. Screws in a desk
  - D. Lubricants for machinery
116. The following are costs for a selected period: direct materials put into production, \$94,000; direct labor cost of converting materials into product, \$200,000; total indirect costs of manufacturing the product, \$40,000. What is the per unit cost of manufacturing 20,000 units in this period?
- A. \$4.70
  - B. \$16.70**
  - C. \$8.70
  - D. \$12.70

117. Recorded costs for the DC5 Division, which manufactured 6,000 units of Product DC5 during the month, are as follows:

Direct materials	\$458,000
Direct labor	400,000
Indirect production costs	80,000
Supervisory services	40,000
Total	\$978,000

The per-unit cost of manufacturing Product DC5 this month is

- A.** \$163.  
B. \$152.  
C. \$170.  
D. \$150.
118. Which of the following is the formula used to compute a product's unit cost?
- A. (Direct Materials + Direct Labor) / Number of Units Produced  
**B.** (Direct Materials + Direct Labor + Overhead) / Number of Units Produced  
C. (Direct Labor + Overhead) / Number of Units Produced  
D. (Indirect Materials + Indirect Labor + Overhead) / Number of Units Produced
119. Which of the following represents normal cost measurement?
- A. Actual Direct Materials + Actual Direct Labor + Actual Overhead  
**B.** Actual Direct Materials + Actual Direct Labor + Estimated Overhead  
C. Estimated Direct Materials + Estimated Direct Labor + Actual Overhead  
D. Actual Direct Materials + Estimated Direct Labor + Estimated Overhead
120. When a company calculates its product unit cost using estimated costs, it is using which cost measurement method?
- A.** Standard costing  
B. Actual costing  
C. Full costing  
D. Normal costing
121. Which of the following types of product costs appear in the financial statements?
- A. Normal costs  
B. Estimated costs  
C. Standard costs  
**D.** Actual costs
122. Which of the following documents initiates the purchasing of materials?
- A. Job order cost sheet  
B. Receiving report  
**C.** Purchase requisition  
D. Purchase order
123. Overhead costs are *not*
- A. allocated to the Work in Process Inventory account.  
**B.** charged directly to the Finished Goods Inventory account.  
C. assigned to specific products.  
D. considered product costs.



124. Which of the following contains period costs?
- A. Work in Process
  - B. Finished Goods
  - C. Cost of Goods Sold
  - D. Selling and administrative expenses**
125. In a manufacturing environment, direct labor costs initially flow
- A. into the Materials Inventory account.
  - B. directly to Cost of Goods Sold.
  - C. into the Work in Process Inventory account.**
  - D. into the Finished Goods Inventory account.
126. In a manufacturing environment, costs of materials initially flow
- A. into the Work in Process Inventory account.
  - B. into the Materials Inventory account.**
  - C. directly to Cost of Goods Sold.
  - D. into the Finished Goods Inventory account.
127. All manufacturing costs that are assigned to completed (but unsold) products should be classified as
- A. materials inventory costs.
  - B. overhead costs.
  - C. work in process inventory costs.
  - D. finished goods inventory costs.**
128. Completed but unsold units for a manufacturing firm would be included in which of the following accounts?
- A. Pending-Sale Inventory
  - B. Finished Goods Inventory**
  - C. Work in Process Inventory
  - D. Materials Inventory
129. In which one of the following accounts would all three product costs *not* be found?
- A. Work in Process Inventory
  - B. Materials Inventory**
  - C. Finished Goods Inventory
  - D. Cost of Goods Sold
130. Consider the following information: direct materials used totaled \$134,400; direct labor amounted to \$396,800; overhead was computed to be \$789,600; Work in Process Inventory on January 1, 2010, was \$378,200; and Work in Process Inventory on December 31, 2010, was \$385,200. What was the cost of goods manufactured?
- A. \$1,313,800**
  - B. \$1,320,800
  - C. \$1,327,800
  - D. \$2,084,200
131. Which of the following should *not* be included in the computation of cost of goods manufactured?
- A. Power costs
  - B. Small tools expense
  - C. Total selling costs**
  - D. Work in Process Inventory

132. Which of the following is *not* a product cost?
- A. Indirect materials costs
  - B. Packaging costs**
  - C. Direct labor costs
  - D. Overhead costs
133. Which of the following is a source document for materials?
- A. Vendor's invoice
  - B. Materials request
  - C. Receiving report
  - D. All of these**
134. The cost of goods manufactured decreases which of the following accounts?
- A. Work in Process Inventory**
  - B. Finished Goods Inventory
  - C. Overhead
  - D. Cost of Goods Sold
135. Total manufacturing costs increase which of the following accounts?
- A. Cost of Goods Sold
  - B. Work in Process Inventory**
  - C. Finished Goods Inventory
  - D. Overhead
136. Total manufacturing costs are equal to
- A. Direct Materials + Direct Labor + Selling Costs.
  - B. Direct Materials + Direct Labor + Overhead.**
  - C. Direct Labor + Overhead + Selling Costs + Administrative Costs.
  - D. Product Costs + Period Costs.
137. Cost of goods manufactured is equal to
- A. Direct Materials + Direct Labor + Overhead.
  - B. Beginning Work in Process Inventory + Total Manufacturing Costs – Ending Work in Process Inventory.**
  - C. Beginning Work in Process Inventory + Period Costs – Ending Work in Process Inventory.
  - D. Beginning Work in Process Inventory + Product Costs.
138. To reconcile total manufacturing costs with the total cost of goods manufactured during the period,
- A. subtract out all period costs from total manufacturing costs to arrive at cost of goods manufactured.
  - B. add beginning and subtract ending finished goods inventory to total manufacturing costs.
  - C. you must know how many goods were sold during the period.
  - D. add beginning and subtract ending work in process inventory to total manufacturing costs.**
139. Which of the following financial statements is unique to a production-oriented company?
- A. Balance sheet
  - B. Statement of cash flows
  - C. Income statement
  - D. Statement of cost of goods manufactured**

140. The Finished Goods Inventory and Cost of Goods Sold for a manufacturing company for the year 20xx are as follows: January 1 Finished Goods Inventory, \$382,500; December 31 Finished Goods Inventory, \$270,000; Cost of Goods Sold for the year, \$1,488,000. The cost of goods manufactured for the year was
- A. \$1,105,500.
  - B. \$610,500.
  - C. \$1,150,500.
  - D.** \$1,375,500.
141. Which of the following account balances is *not* reported on the balance sheet?
- A. Materials Inventory
  - B. Manufacturing Patents
  - C.** Cost of Goods Sold
  - D. Work in Process Inventory
142. The presentation of merchandise inventory and cost of goods sold in the financial statements of merchandising companies most nearly resembles the presentation of \_\_\_\_\_ inventory and cost of goods sold in the financial statements of manufacturing companies.
- A. materials
  - B.** finished goods
  - C. manufacturing supplies
  - D. work in process
143. The beginning finished goods inventory for Boston Co. was \$401,050. Goods completed during the year were costed at \$783,700. The ending finished goods inventory was dangerously low, having been reduced to \$127,700. The cost of goods sold for the year for Boston Co. was
- A. \$800,150.
  - B.** \$1,057,050.
  - C. \$656,000.
  - D. \$928,600.
144. From Jolier's year-end income statement, you observe that the finished goods inventory has doubled during the year. This would indicate that during the year Jolier
- A. sold more goods than were produced.
  - B. produced more goods than last year.
  - C.** produced more goods than were sold.
  - D. sold more goods than last year.
145. The income statement for a manufacturing company usually contains a detailed computation of the
- A. total manufacturing cost.
  - B.** cost of goods sold.
  - C. total cost of materials used.
  - D. cost of goods manufactured.
146. Cost allocation is the process of assigning which of the following costs to specific cost objects?
- A.** Overhead
  - B. Direct labor
  - C. Selling and administrative expenses
  - D. Direct materials

147. Which of the following is a collection of overhead costs related to a cost object?
- A. Cost driver
  - B. Cost function
  - C. Cost equation
  - D. Cost pool**
148. Which of the following is an activity that causes changes in the amount of a cost pool?
- A. Cost element
  - B. Cost function
  - C. Cost driver**
  - D. Cost allocation
149. Which of the following represents the overhead applied to a product?
- A. Actual Overhead Rate ÷ Estimated Cost Driver Level
  - B. Predetermined Overhead Rate ÷ Actual Cost Driver Level**
  - C. Predetermined Overhead Rate ÷ Estimated Cost Driver Level
  - D. Actual Overhead Rate ÷ Actual Cost Driver Level

150. If the estimated cost driver level is overstated, the
- A. predetermined overhead rate will be understated.**
  - B. predetermined overhead rate will be overstated.
  - C. product cost will be overstated.
  - D. cost pool will be understated.

151. The following budget data are available for Howers Company:

Estimated direct labor hours	16,000
Estimated direct labor dollars	\$ 170,000
Estimated overhead costs	\$207,200

If overhead is to be applied based on direct labor hours, the predetermined overhead rate per hour (rounded) is

- A. \$13.45.
  - B. \$12.95.**
  - C. \$12.05.
  - D. \$11.45.
152. Which of the following is *not* considered important in the proper allocation of overhead costs?
- A. Forecasting production activity
  - B. Estimating total overhead costs
  - C. Selecting an appropriate activity base
  - D. Estimating the selling price of the product**
153. Which of the following results in a predetermined overhead rate?
- A. Estimated overhead divided by estimated units produced**
  - B. Estimated overhead divided by actual direct labor hours
  - C. Actual units produced divided by estimated overhead
  - D. Estimated direct labor dollars divided by estimated overhead

154. Predetermined overhead rates generally are useful for all but which of the following?
- A. Price determination
  - B. Estimating production levels**
  - C. Inventory valuation
  - D. Product costing
155. If overhead is applied on the basis of direct labor hours, and actual hours worked are less than budgeted, which of the following is true, assuming estimated overhead is correct?
- A. Overhead is probably overapplied.
  - B. Overhead is probably underapplied.**
  - C. Applied overhead and actual overhead are equal.
  - D. None of these is true.
156. Raisin Company's overhead cost was overapplied by \$4,300 in the current year. The estimated overhead was \$170,000, and the applied overhead was \$166,000. Compute the actual overhead.
- A. \$161,700**
  - B. \$166,700
  - C. \$165,700
  - D. \$174,300

157. The following information was taken from the cost records of the Krameer Company:

Estimated overhead	\$180,000
Actual overhead	\$178,000
Estimated direct labor hours	24,000
Actual direct labor hours	25,000

If overhead is applied based on direct labor hours, the company's overapplied or underapplied overhead was

- A. \$2,000 overapplied.
  - B. \$2,000 underapplied.
  - C. \$9,500 overapplied.**
  - D. \$9,500 underapplied.
158. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. Compute the predetermined overhead rate per direct labor hour.
- A. \$7.83
  - B. \$8.38
  - C. \$8.20
  - D. \$8.00**

159. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. The entry to assign overhead costs during the year would be
- |                         |                |         |
|-------------------------|----------------|---------|
| A. Overhead             | 720,000        |         |
| Cash                    |                | 720,000 |
| <b>B. WIP Inventory</b> | <b>736,000</b> |         |
| Overhead                |                | 736,000 |
| C. Cash                 | 754,400        |         |
| Overhead                |                | 754,400 |
| D. Overhead             | 754,400        |         |
| WIP Inventory           |                | 754,400 |
160. A manufacturing company applies overhead based on direct labor hours. At the beginning of the year, it estimated that overhead costs would be \$720,000 and direct labor hours would be 90,000. Actual overhead costs incurred were \$754,400, and actual direct labor hours were 92,000. What is the amount of overapplied or underapplied overhead at the end of the year?
- A. \$34,400 overapplied  
 B. \$18,400 overapplied  
 C. \$34,400 underapplied  
**D. \$18,400 underapplied**
161. When the amount of underapplied or overapplied overhead is small, it usually is written off to
- A. Work in Process Inventory.  
**B. Cost of Goods Sold.**  
 C. Finished Goods Inventory.  
 D. selling expenses.
162. In accounting for an immaterial amount of overapplied overhead, which of the following is part of the adjusting entry?
- A. A debit to the Work in Process Inventory account  
**B. A debit to the Overhead account**  
 C. A debit to the Cost of Goods Sold account  
 D. A credit to the Overhead account
163. Overhead has been underapplied when the
- A. Overhead account has a credit balance.  
**B. Overhead account has a debit balance.**  
 C. company has overspent in the overhead cost area.  
 D. adjusting entry to account for the underapplied overhead involves a credit to Cost of Goods Sold.
164. Lopar Company uses a predetermined overhead rate based on direct labor dollars. Lopar Company estimated that its 2010 overhead would total \$938,000 and that 2010 direct labor costs would be \$670,000. During 2010, actual overhead costs were \$960,000, and actual direct labor costs were \$700,000. By how much was Lopar's overhead over- or underapplied?
- A. \$20,000 overapplied**  
 B. \$20,000 underapplied  
 C. \$18,000 overapplied  
 D. \$10,000 underapplied

165. Which of the following accounts would be adjusted by the disposal of an immaterial amount of overapplied overhead?
- A. Finished Goods Inventory
  - B. Materials Inventory
  - C. Work in Process Inventory
  - D. Cost of Goods Sold**
166. The activity base that would be most appropriate in a capital-intensive industry is
- A. direct labor dollars.
  - B. direct labor hours.
  - C. sales volume.
  - D. machine hours.**
167. When the activity base used in calculating the predetermined overhead rate is units of output, which of the following also must be known before overhead can be applied to a particular job?
- A. Actual overhead incurred during the period
  - B. Estimated direct labor hours for all jobs during the period
  - C. Actual units produced for that job**
  - D. Actual units produced for all jobs during the period
168. Slaney Company applies overhead on the basis of direct labor dollars, using a rate of \$1.65 per labor dollar. How much overhead would be applied to products in January if \$18,600 of labor costs were incurred and 2,200 labor hours were worked?
- A. \$40,920
  - B. \$30,690**
  - C. \$3,630
  - D. \$18,600
169. The numbers of vendors, products, and engineering change orders are examples of
- A. beneficial relationships.
  - B. potential cost drivers.**
  - C. inputs to processing time.
  - D. unavoidable overhead costs.
170. Overhead during the year was underapplied. If the amount is insignificant, what is the entry to close the overhead account and transfer the underapplied overhead to Cost of Goods Sold?
- A. Overhead                      XX  
    Cost of Goods Sold                      XX
  - B. Cost of Goods Sold                      XX  
    Overhead                                      XX**
  - C. Overhead                      XX  
    Finished Goods Inventory                      XX
  - D. Cost of Goods Sold                      XX  
    Finished Goods Inventory                      XX

171. Complete the following chart by placing an “X” under the applicable column headings. Classify each cost as a fixed cost or a variable cost and as either a direct or indirect product cost or a period cost.

Item	Cost Behavior		Product Costs		Period Cost
	Fixed	Variable	Direct	Indirect	
Glue used in furniture					
Cost of workers sanding a product					
Wages of factory custodian					
Grapes used in jelly					
Rent of factory equipment					
Factory insurance					
Controller's salary					
Factory washroom supplies					
Sugar in candy products					
Wages of a machinist					
Office supplies used					

Item	Cost Behavior		Product Costs		Period Cost
	Fixed	Variable	Direct	Indirect	
Glue used in furniture		X		X	
Cost of workers sanding a product		X	X		
Wages of factory custodian		X		X	
Grapes used in jelly		X	X		
Rent of factory equipment	X			X	
Factory insurance	X			X	
Controller's salary	X				X
Factory washroom supplies		X		X	
Sugar in candy products		X	X		
Wages of a machinist		X	X		
Office supplies used		X			X



172. Complete the following chart by placing an “X” under the applicable column heading. Classify each cost as a fixed cost or variable cost and as either a direct or indirect product cost or a period cost.

Item	Cost Behavior		Product Costs		Period Cost
	Fixed	Variable	Direct	Indirect	
Assembly line workers					
Office salaries					
Factory supervisor					
Depreciation on factory					
Sales commissions					
Paper used to make books					
Factory property taxes					
Screws in a calculator					
Office Receptionist's payroll					
Wages of machineman					
Advertising					

Item	Cost Behavior		Product Cost		Period Cost
	Fixed	Variable	Direct	Indirect	
Assembly line workers		X	X		
Office salaries	X				X
Factory supervisor	X			X	
Depreciation on factory	X			X	
Sales commissions		X			X
Paper used to make books		X	X		
Factory property taxes	X			X	
Screws in a calculator		X		X	
Office Receptionist's payroll	X				X
Wages of machineman		X	X		
Advertising	X				X

173. The costs listed below are related to a manufacturer of all-natural ice cream. In the space provided, indicate whether the cost should be classified as direct materials (DM), direct labor (DL), or overhead (OH).

- \_\_\_\_\_ a. Maintenance on factory building
- \_\_\_\_\_ b. Cream
- \_\_\_\_\_ c. Mixing department wages
- \_\_\_\_\_ d. Vanilla
- \_\_\_\_\_ e. Factory supervisor's salary
- \_\_\_\_\_ f. Machine oil for mixing machines
- \_\_\_\_\_ g. Sugar
- \_\_\_\_\_ h. Machine operator wages
- \_\_\_\_\_ i. Factory maintenance labor
- \_\_\_\_\_ j. Depreciation on factory equipment

- a. OH
- b. DM
- c. DL
- d. DM
- e. OH
- f. OH
- g. DM
- h. DL
- i. OH
- j. OH

174. Identify the document needed to support each of the following activities in a manufacturing organization:

- \_\_\_\_\_ a. Placing an order for direct materials with a supplier
- \_\_\_\_\_ b. Recording direct labor time at the beginning and end of each work shift
- \_\_\_\_\_ c. Issuing direct materials into production
- \_\_\_\_\_ d. Recording the costs of a specific job requiring direct materials, direct labor, and overhead
- \_\_\_\_\_ e. Billing a customer for a completed order
- \_\_\_\_\_ f. Receiving direct materials at the shipping dock

- a. Purchase order
- b. Time card
- c. Materials requisition
- d. Job order cost card
- e. Sales invoice
- f. Receiving report

175. Use the information below for the year ended December 31, 20xx, to prepare the statement of cost of goods manufactured.

<b>Inventories</b>	<b>Beginning</b>	<b>Ending</b>
Materials inventory	\$32,300	\$ 33,900
Work in process inventory	40,500	41,900
Direct materials purchased		158,300
Total direct labor costs		231,300
Total indirect labor costs		45,200
Utilities		27,100
Depreciation		36,200
Small tools		3,100
Factory insurance		1,800
Factory supervision		39,500
Miscellaneous overhead costs		6,200

<b>Statement of Cost of Goods Manufactured For the Year Ended December 31, 20xx</b>		
Direct materials used		
Materials inventory, January 1	\$ 32,300	
Direct materials purchased	158,300	
Cost of direct materials available for use	\$190,600	
Less materials inventory, December 31	<u>33,900</u>	
Cost of direct materials used		\$156,700
Direct labor costs		231,300
Overhead costs		
Indirect labor costs	\$ 45,200	
Utilities	27,100	
Depreciation	36,200	
Small tools	3,100	
Factory insurance	1,800	
Factory supervision	39,500	
Miscellaneous overhead costs	<u>6,200</u>	
Total overhead costs		159,100
Total manufacturing costs		\$547,100
Add work in process inventory, January 1		40,500
Total cost of work in process during the year		\$587,600
Less work in process inventory, December 31		<u>41,900</u>
Cost of goods manufactured		\$545,700

176. Use the information below for the year ended December 31, 20xx, to prepare the statement of cost of goods manufactured.

<b>Inventories</b>	<b>Beginning</b>	<b>Ending</b>
Materials inventory	\$41,000	\$ 51,000
Work in process inventory	62,000	78,000
Direct materials purchased		258,000
Total direct labor costs		372,000
Total indirect labor costs		67,000
Utilities		41,000
Depreciation		54,000
Small tools		5,000
Factory insurance		3,000
Factory supervision		66,000
Miscellaneous overhead costs		11,000

<b>Statement of Cost of Goods Manufactured For the Year Ended December 31, 20xx</b>		
Direct materials used		
Materials inventory, January 1	\$ 41,000	
Direct materials purchased	258,000	
Cost of direct materials available for use	\$299,000	
Less materials inventory, December 31	<u>51,000</u>	
Cost of direct materials used		\$248,000
Direct labor costs		372,000
Overhead costs		
Indirect labor costs	\$ 67,000	
Utilities	41,000	
Depreciation	54,000	
Small Tools	5,000	
Factory Insurance	3,000	
Factory supervision	66,000	
Miscellaneous overhead costs	<u>11,000</u>	
Total overhead costs		247,000
Total manufacturing costs		\$867,000
Add work in process inventory, January 1		62,000
Total cost of work in process during the year		\$929,000
Less work in process inventory, December 31		<u>78,000</u>
Cost of goods manufactured		<u>\$851,000</u>

177. Fill in the missing data for Company B:

	<b>Company B</b>
Direct materials used	\$ 9,000
Direct labor cost	4,000
Overhead	(a)
Total manufacturing costs	25,000
Work in process inventory, Jan. 1	1,000
Work in process inventory, Dec. 31	3,500
Sales revenue	40,000
Finished goods inventory, Jan. 1	(b)
Cost of goods manufactured	(c)
Cost of goods available for sale	(d)
Finished goods inventory, Dec. 31	4,000
Cost of goods sold	26,500
Gross margin	(e)
Operating expenses	(f)
Net operating income	5,500

- a. \$12,000
- b. \$8,000
- c. \$22,500
- d. \$30,500
- e. \$13,500
- f. \$8,000

178. Fill in the missing data for Company C:

	<b>Company C</b>
Direct materials used	\$ 6,000
Direct labor cost	(a)
Overhead	7,000
Total manufacturing costs	18,000
Work in process inventory, Jan. 1	2,000
Work in process inventory, Dec. 31	(b)
Sales revenue	30,000
Finished goods inventory, Jan. 1	7,000
Cost of goods manufactured	(c)
Cost of goods available for sale	23,000
Finished goods inventory, Dec. 31	(d)
Cost of goods sold	18,000
Gross margin	(e)
Operating expenses	(f)
Operating income	3,000

- a. \$5,000
- b. \$4,000
- c. \$16,000
- d. \$5,000
- e. \$12,000
- f. \$9,000

179. Taperno Manufacturing Company has made the following cost estimates for next year:

Direct labor	\$90,000
Direct materials	72,000
Indirect labor	19,200
Indirect materials	8,400
Depreciation—factory building	8,200
Depreciation—factory machinery	4,200
Depreciation—office equipment	500
Factory utilities	4,900
Factory property taxes	3,100
Selling expenses	25,000
Miscellaneous overhead costs	5,600
General and administrative expenses	19,000

The company applies overhead based on direct labor hours. The estimated direct labor hours for next year are 16,000 hours.

Compute the overhead application rate that will be used to apply overhead during the next year.

a.

Overhead costs:	
Indirect labor	\$19,200
Indirect materials	8,400
Depreciation—factory building	8,200
Depreciation—factory machinery	4,200
Factory utilities	4,900
Factory property taxes	3,100
Miscellaneous overhead costs	5,600
Total	\$53,600

b.  $\$53,600$  (estimated overhead costs) / 16,000 (estimated direct labor hours) = \$3.35 per direct labor hour

180. At the beginning of 2010, Zuir Company's accounting department calculated the following estimates for the coming year's production:

Estimated overhead	\$441,600
Direct labor hours	9,200 hr

During the year, Zuir Company experienced \$440,000 in actual overhead costs and actually worked 9,100 direct labor hours. Zuir applies overhead to production using a predetermined overhead rate based on direct labor hours.

- Calculate the predetermined overhead rate Zuir uses to apply overhead. (Show your computations.)
- By what amount was overhead over- or underapplied for 2010? (Show your computations.)
- Assuming the amount of over- or underapplied overhead is not significant, will the Cost of Goods Sold account be increased or decreased to correct the application of overhead?

- Predetermined overhead rate =  $\$441,600 / 9,200 \text{ hr} = \$48$  per direct labor hour
- Applied  $\$48 \times 9,100$  direct labor hours used = \$436,800  
 Actual overhead = 440,000  
 (\$3,200) Underapplied
- Increase Cost of Goods Sold

181. The Sorrel Pharmaceuticals Corporation manufactures a variety of drugs that are marketed internationally. Inventories on May 31 and June 30 were as follows:

	May 31	June 30
Materials Inventory	\$354,100	\$327,400
Work in Process Inventory	112,600	116,400
Finished Goods Inventory	138,500	142,800

Purchases of materials for June were \$142,600. Direct labor costs were incurred and computed on the basis of 27,000 hours at \$8 per hour. Actual overhead costs incurred in June were as follows: operating supplies used, \$5,700; janitorial and materials handling labor, \$38,100; employee benefits, \$110,800; heat, light, and power, \$50,000; factory depreciation, \$8,400; property taxes, \$8,000; and expired portion of insurance premiums, \$12,000. Net sales for June were \$992,700. Selling and administrative expenses were \$165,000.

Prepare a statement of cost of goods manufactured for the month ended June 30.

a.

<b>Sorrel Pharmaceuticals Corporation</b>		
<b>Statement of Cost of Goods Manufactured</b>		
<b>For the Month Ended June 30, 20xx</b>		
Direct materials used		
Materials inventory, May 1, 20xx	\$354,100	
Direct materials purchased	142,600	
Cost of direct materials available for use	\$496,700	
Less Materials Inventory, June 30, 20xx	327,400	
Cost of direct materials used		\$169,300
Direct labor costs		216,000
Overhead costs		
Operating supplies	\$ 5,700	
Janitorial and materials handling labor	38,100	
Employee benefits	110,800	
Heat, light, and power	50,000	
Factory depreciation	8,400	
Property taxes	8,000	
Expired portion of insurance premiums	12,000	
Total overhead costs		233,000
Total manufacturing costs		\$618,300
Add work in process inventory, May 31, 20xx		112,600
Total cost of work in process during the month		\$730,900
Less work in process inventory, June 30, 20xx		116,400
Cost of goods manufactured		\$614,500

182. As the management accountant for Bynami Enterprises, Inc., you have been asked to prepare a statement of cost of goods manufactured at the end of the first quarter. Account balances at that time were as follows:

Materials inventory, January 1, 20xx	\$ 510,500
Work in process inventory, January 1, 20xx	697,300
Finished goods inventory, January 1, 20xx	701,200
Direct materials purchased during the quarter	1,105,400
Direct labor costs	154,800
Depreciation expense, plant and equipment	16,200
Plant supervisors' salaries	50,600
Insurance expense, plant and equipment	1,100
Utilities expense, plant	4,000
Indirect labor costs	16,800
Manufacturing supplies expense	3,400
Small tools expense	1,500

March 31 inventories were as follows: materials, \$540,200; work in process, \$795,400; and finished goods, \$604,100. Prepare the statement of cost of goods manufactured for the first quarter of 20xx.

<b>Bynami Enterprises, Inc.</b>		
<b>Statement of Cost of Goods Manufactured</b>		
<b>For the Quarter Ended March 31, 20xx</b>		
Direct materials used		
Materials inventory, January 1	\$ 510,500	
Direct materials purchased	1,105,400	
Cost of direct materials available for use	\$1,615,900	
Less materials inventory, March 31	<u>540,200</u>	
Cost of direct materials used		\$1,075,700
Direct labor costs		154,800
Overhead costs		
Depreciation expense, plant and equipment	\$ 16,200	
Plant supervisors' salaries	50,600	
Insurance expense, plant and equipment	1,100	
Utilities expense, plant	4,000	
Indirect labor costs	16,800	
Manufacturing supplies expense	3,400	
Small tools expense	<u>1,500</u>	
Total overhead costs		93,600
Total manufacturing costs		\$1,324,100
Add work in process inventory, January 1		697,300
Total cost of work in process during the quarter		\$2,021,400
Less work in process inventory, March 31		<u>795,400</u>
Cost of goods manufactured		\$1,226,000



183. Yamishi Production had the following inventories for the first quarter of 20xx:

	Beginning	Ending
Materials	\$606,600	\$522,100
Work in process	312,100	280,800
Finished goods	416,100	540,200

Purchases of materials during the quarter were \$427,800. Total direct labor costs were incurred in the amount of \$1,482,000. Actual overhead costs were incurred as follows: operating supplies used, \$17,100; janitorial and maintenance, \$87,300; employee benefits, \$26,400; utilities, \$162,000; depreciation of factory, \$43,200; property taxes, \$24,000; factory insurance, \$29,000. Net sales for the quarter were \$3,562,200. Selling and administrative expenses were \$508,000. Income taxes should be computed at 40 percent.

Prepare a statement of cost of goods manufactured for the first quarter of 20xx.

<b>Yamishi Production</b>		
<b>Statement of Cost of Goods Manufactured</b>		
<b>For the Quarter Ended March 31, 20xx</b>		
Direct materials used		
Materials inventory, January 1	\$ 606,600	
Direct materials purchased	427,800	
Cost of direct materials available for use	\$1,034,400	
Less materials inventory, March 1	<u>522,100</u>	
Cost of direct materials used		\$ 512,300
Direct labor		1,482,000
Overhead costs		
Operating supplies	\$ 17,100	
Janitorial and maintenance	87,300	
Employee benefits	26,400	
Utilities	162,000	
Depreciation of factory	43,200	
Property taxes	24,000	
Factory insurance	<u>29,000</u>	
Total overhead costs		389,000
Total manufacturing costs		\$2,383,300
Add work in process inventory, January 1		312,100
Total cost of work in process during the quarter		\$2,695,400
Less work in process inventory, March 31		<u>280,800</u>
Cost of goods manufactured		\$2,414,600

184. The following information has been made available to you. Assume that overhead is applied on the basis of direct labor hours.

Estimated overhead	\$1,638,000
Estimated direct labor hours	390,000
Actual direct labor hours	442,000
Actual overhead	\$1,862,000

- Compute the predetermined overhead rate.
- Compute the amount of applied overhead for the year.
- Compute the amount of underapplied or overapplied overhead.

- $\$1,638,000$  (estimated overhead costs) / 390,000 hr (estimated direct labor hours) = \$4.20 per direct labor hour
- $\$4.20 \times 442,000$  direct labor hours used = \$1,856,400
- 

\$1,856,400	applied overhead
1,862,000	actual overhead incurred
\$ (5,600)	underapplied overhead

185. The following information has been made available to you. Assume that overhead is applied on the basis of direct labor hours.

Actual overhead	\$47,400
Estimated overhead	\$48,300
Actual direct labor hours	8,900
Estimated direct labor hours	9,200

- Compute the predetermined overhead rate.
- Compute overhead applied.
- Compute over- or underapplied overhead (indicate amount and direction).
- Indicate whether cost of goods sold should be increased or decreased to adjust the balance to actual costs.

- $\$48,300 \div 9,200$  direct labor hours = \$5.25 per direct labor hour
- $\$5.25 \times 8,900$  direct labor hours used = \$46,725
- Applied overhead – actual overhead = \$46,725 – \$47,400 = (\$675) underapplied
- Increased

186. The controller for Drisau Company is trying to decide whether or not the company should switch from the traditional approach of overhead cost allocation to the activity-based costing approach. She has gathered the following overhead data on the company's two products: estimated total overhead, \$180,000 (consisting of the \$70,000 for setups and \$110,000 for assembly); estimated direct labor hours (Product A, 6,000; Product B, 3,000); estimated number of setups (Product A, 750; Product B, 1,250); estimated number of machine hours used in assembly (Product A, 3,000; Product B, 5,000); estimated number of units produced (Product A, 500; Product B, 200).

Using the traditional approach:

- Calculate the predetermined overhead rate using direct labor hours as the cost driver.
- Compute the amount of overhead costs applied to each product in total and per unit.

a.  $\$180,000 \div 9,000 \text{ direct labor hours} = \$20 \text{ per direct labor hour}$

b. Product A:  $6,000 \text{ direct labor hours} \times \$20 = \$120,000 \div 500 \text{ units} = \$240 \text{ per unit}$

Product B:  $3,000 \text{ direct labor hours} \times \$20 = \$60,000 \div 200 \text{ units} = \$300 \text{ per unit}$

187. Job 29 consists of 300 units and has total manufacturing costs of direct materials, \$4,500; direct labor, \$7,500; and overhead, \$3,600.

- What is the unit product cost?
- What are the prime costs per unit?
- What are the conversion costs per unit?

a.  $(\$4,500 + \$7,500 + \$3,600) / 300 \text{ units} = \$52 \text{ per unit}$

b. Prime Costs = Direct Materials + Direct Labor; so  $(\$4,500 + \$7,500) / 300 \text{ units} = \$40 \text{ per unit}$

c. Conversion Costs = Direct Labor + Overhead; so  $(\$7,500 + \$3,600) / 300 \text{ units} = \$37 \text{ per unit}$

188. Compute the overhead rate per shipping request for the Shipping Department if the estimated overhead costs are \$18,290 and the number of estimated shipping requests is 3,100.

$\$18,290 / 3,100 \text{ requests} = \$5.90 \text{ per shipping request}$

189. Dale, Smith, and Associates, a CPA firm, is trying to determine the hourly cost of its junior accountants in the auditing department. The following data have been gathered.

Monthly salaries for 4 juniors @ \$3,000 each	\$12,000	
Monthly auditing department overhead costs	\$83,160	
Average number of hours worked each month	800	hr

Assuming 40 percent of the monthly overhead costs for the auditing department are attributable to the junior accountants, compute the hourly cost of their services.

Salaries	\$12,000
Overhead costs ( $\$83,160 \times 40\%$ )	33,264
Total costs	\$45,264
Divide by monthly hours	800
Cost per hour	\$ 56.58

190. Calculate the amount of overhead costs applied to production if the predetermined overhead rate is \$4 per direct labor hour and 1,200 direct labor hours were worked.

$$\$4 \times 1,200 \text{ DLH} = \$4,800$$