

## Chapter 02

### Job Order Costing

#### True / False Questions

1. Process costing is used when all of the products produced are unique.

True   False

2. A marketing consulting firm would most likely use process costing.

True   False

3. A law firm would most likely use job order costing.

True   False

4. When job order costing is used, costs are accumulated on a job cost sheet.

True   False

5. Process costing averages the total cost of the process over the number of units produced.

True   False

6. Source documents are used to assign all manufacturing costs to jobs.

True False

7. A materials requisition form is used to authorize the purchase of direct materials.

True False

8. Direct labor costs are recorded using labor time tickets.

True False

9. A job cost sheet will record the direct materials and direct labor used by the job but not the manufacturing overhead applied.

True False

10. A predetermined overhead rate is calculated by dividing estimated total manufacturing overhead cost by estimated units in the allocation base.

True False

11. The predetermined overhead rate is estimated at the end of the period and used to assign manufacturing overhead to jobs that were completed during the period.

True False

12. Allocation base and cost driver are two terms that can often be used interchangeably.

True False

13. The Raw Materials Inventory account shows the cost of only direct materials purchased during the period.

True   False

14. Indirect materials are recorded directly on the job cost sheet.

True   False

15. Labor that can be traced to a specific job is recorded directly on the job cost sheet.

True   False

16. When manufacturing overhead is applied to a job, a credit is made to the Work in Process account.

True   False

17. When goods are completed, a debit is made to Work in Process Inventory and a credit is made to Finished Goods Inventory.

True   False

18. The total manufacturing cost for a job is based on the amount of applied overhead using the predetermined overhead rate.

True   False

19. Actual manufacturing overhead costs are debited to the Manufacturing Overhead account.

True   False

20. Commissions expense and advertising expense are included as part of manufacturing overhead and treated as a product cost.

True   False

21. If there is a debit balance in the Manufacturing Overhead account at the end of the period, overhead was underapplied.

True   False

22. The most common method for disposing of the balance in Manufacturing Overhead is to make a direct adjustment to Cost of Goods Sold.

True   False

23. To eliminate underapplied overhead at the end of the year, Manufacturing Overhead would be debited and Cost of Goods Sold would be credited.

True   False

24. To eliminate underapplied overhead at the end of the year, Manufacturing Overhead would be credited and Cost of Goods Sold would be debited.

True   False

25. The total amount of cost assigned to jobs that were completed during the year is the cost of goods sold.

True   False



26. For service firms, the primary driver used to assign cost is direct material.

True   False

27. In a service firm, the cost associated with time that employees spend on training, paperwork, and supervision is considered part of manufacturing overhead.

True   False

### Multiple Choice Questions

28. Which of the following types of firms would most likely use process costing?

- A. Superior Auto Body & Repair
- B. Crammond Custom Cabinets
- C. Sunshine Soft Drinks
- D. Jackson & Taylor Tax Service

29. Which of the following types of firms would most likely use job order costing?

- A. Happy-Oh Cereal Company
- B. Huey, Lewey & Dewie, Attorneys
- C. SoooSweet Beverage
- D. C-5 Cement Company

30. Which of the following is a characteristic of a manufacturing environment that would use job order costing?
- A. Standardized production process
  - B. Continuous manufacturing
  - C. Homogenous products
  - D. Differentiated products
31. The cost of materials used on a specific job is first captured on which source document?
- A. Cost driver sheet
  - B. Materials requisition form
  - C. Labor time ticket
  - D. Process cost sheet
32. The source document that captures how much time a worker has spent on various jobs during the period is a
- A. Cost driver sheet.
  - B. Materials requisition form.
  - C. Labor time ticket.
  - D. Job cost sheet.

33. All the costs assigned to an individual job are summarized on a

- A. Cost driver sheet.
- B. Job cost sheet.
- C. Materials requisition form.
- D. Labor time ticket.

34. A predetermined overhead rate is calculated using which formula?

- A. Actual manufacturing overhead cost/estimated units in the allocation base
- B. Estimated units in the allocation base/estimated manufacturing overhead cost
- C. Estimated manufacturing overhead cost/actual units in the allocation base
- D. Estimated manufacturing overhead cost/estimated units in the allocation base

35. Manufacturing overhead is applied to each job using which formula?

- A. Predetermined overhead rate x actual value of the allocation base for the job
- B. Predetermined overhead rate x estimated value of the allocation base for the job
- C. Actual overhead rate x estimated value of the allocation base for the job
- D. Predetermined overhead rate/actual value of the allocation base for the job

36. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, actual labor hours were 21,000. The predetermined manufacturing overhead rate would be
- A. \$20.00
  - B. \$0.05
  - C. \$20.75
  - D. \$19.05
37. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, actual labor hours were 21,000. The amount of manufacturing overhead applied to production would be
- A. \$400,000
  - B. \$415,000
  - C. \$420,000
  - D. \$435,750
38. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, actual labor hours were 21,000. The predetermined overhead rate would be
- A. \$10.00
  - B. \$1.05
  - C. \$10.75
  - D. \$10.24

39. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, actual labor hours were 21,000. The amount of manufacturing overhead applied to production would be
- A. \$200,000
  - B. \$215,000
  - C. \$210,000
  - D. \$225,750
40. Manufacturing overhead was estimated to be \$500,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$450,000, actual direct labor hours were 19,000. The predetermined overhead rate would be
- A. \$22.50
  - B. \$25.00
  - C. \$23.68
  - D. \$26.32
41. Manufacturing overhead was estimated to be \$500,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$450,000, actual direct labor hours were 19,000. The amount of manufacturing overhead applied to production would be
- A. \$500,000
  - B. \$450,000
  - C. \$427,500
  - D. \$475,000

42. Kilt Company had the following information for the year:

<b>Direct materials used</b>	<b>\$110,000</b>
<b>Direct labor incurred (5,000 hours)</b>	<b>\$150,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$166,000</b>

Kilt Company used a predetermined overhead rate of \$42 per direct labor hour for the year and estimated that direct labor hours would total 5,500 hours. Assume the only inventory balance is an ending Work in Process balance of \$17,000. How much overhead was applied during the year?

- A. \$231,000
- B. \$150,000
- C. \$166,000
- D. \$210,000

43. Sawyer Company had the following information for the year:

<b>Direct materials used</b>	<b>\$190,000</b>
<b>Direct labor incurred (7,000 hours)</b>	<b>\$245,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$273,000</b>

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods balance of \$9,000. How much overhead was applied during the year?

- A. \$245,000
- B. \$273,000
- C. \$280,000
- D. \$320,000

44. Jackson Company had the following information for the year:

Direct materials used	\$295,000
Direct labor incurred (9,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$343,000

Jackson Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods balance of \$19,000. How much overhead was applied during the year?

- A. \$245,000
- B. \$343,000
- C. \$360,000
- D. \$320,000

45. Which of the following represents the cost of materials purchased but not yet issued to production?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

46. Which of the following represents the accumulated costs of jobs as yet incomplete?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

47. Which of the following represents the cost of jobs completed but not yet sold?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

48. Which of the following represents the cost of the jobs sold during the period?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

49. When manufacturing overhead is applied to production, which of the following accounts is credited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Manufacturing Overhead

50. When materials are purchased, which of the following accounts is debited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold



51. When direct materials are used in production, which of the following accounts is debited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

52. When direct materials are used in production, which of the following accounts is credited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

53. When units are completed, the cost associated with the job is credited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

54. When units are sold, the cost associated with the units is credited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

55. When units are completed, the cost associated with the job is debited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

56. When units are sold, the cost associated with the units is debited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

57. When materials are placed into production,

- A. Raw Materials Inventory is debited if the materials are traced directly to the job.
- B. Work in Process Inventory is debited if the materials are traced directly to the job.
- C. Manufacturing Overhead is debited if the materials are traced directly to the job.
- D. Raw Materials Inventory is credited only if the materials are traced directly to the job, otherwise manufacturing overhead is credited.

58. If materials being placed into production are not traced to a specific job,

- A. Raw Materials Inventory would be debited.
- B. Work in Process Inventory would be debited.
- C. Manufacturing Overhead would be debited.
- D. Manufacturing Overhead would be credited.

59. In recording the purchase of materials that are not traced to any specific job, which of the following is correct?
- A. Raw Materials Inventory would be debited
  - B. Work in Process Inventory would be debited
  - C. Manufacturing Overhead would be debited
  - D. Manufacturing Overhead would be credited
60. Which of the following would be used to record the labor cost that is traceable to a specific job?
- A. Raw Materials Inventory would be debited
  - B. Work in Process Inventory would be debited
  - C. Manufacturing Overhead would be debited
  - D. Manufacturing Overhead would be credited
61. Which of the following would be used to record the labor cost that is not traceable to a specific job?
- A. Raw Materials Inventory would be debited
  - B. Work in Process Inventory would be debited
  - C. Manufacturing Overhead would be debited
  - D. Manufacturing Overhead would be credited

62. Which of the following would be used to record the usage of indirect manufacturing resources?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

63. Which of the following would be used to record the depreciation of manufacturing equipment?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

64. Which of the following would be used to record the property taxes on a factory building?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

65. Which of the following would be used to record the factory supervisor's salary?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

66. Which of the following would be used to apply manufacturing overhead to production for the period?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Work in Process Inventory would be credited

67. Which of the following would be used to apply manufacturing overhead to production for the period?

- A. Credit to Raw Materials Inventory
- B. Credit to Work in Process Inventory
- C. Debit to Manufacturing Overhead
- D. Credit to Manufacturing Overhead

68. Which of the following would be used to transfer the cost of completed goods during the period?

- A. Credit to Raw Materials Inventory
- B. Credit to Work in Process Inventory
- C. Debit to Manufacturing Overhead
- D. Credit to Manufacturing Overhead

69. If a company uses a predetermined overhead rate, which of the following statements is correct?

- A. Manufacturing Overhead will be debited for estimated overhead
- B. Manufacturing Overhead will be credited for estimated overhead
- C. Manufacturing Overhead will be debited for actual overhead
- D. Manufacturing Overhead will be credited for actual overhead

70. Which of the following accounts is not affected by applied manufacturing overhead?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

71. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. The amount debited to the Manufacturing Overhead account would be

- A. \$400,000
- B. \$415,000
- C. \$420,000
- D. \$435,750

72. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. The amount credited to the Manufacturing Overhead account would be

- A. \$400,000
- B. \$415,000
- C. \$420,000
- D. \$435,750

73. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. The amount debited to the Manufacturing Overhead account would be

- A. \$200,000
- B. \$215,000
- C. \$210,000
- D. \$225,750

74. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. The amount credited to the Manufacturing Overhead account would be

- A. \$200,000
- B. \$215,000
- C. \$210,000
- D. \$225,750

75. Overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual overhead was \$225,000, and actual direct labor hours were 19,000. The amount debited to the manufacturing overhead account would be
- A. \$250,000
  - B. \$225,000
  - C. \$213,750
  - D. \$237,500
76. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. The amount credited to the Manufacturing Overhead account would be
- A. \$250,000
  - B. \$225,000
  - C. \$213,750
  - D. \$237,500
77. Overhead costs are overapplied if the amount applied to Work in Process is
- A. greater than estimated overhead.
  - B. less than estimated overhead.
  - C. greater than actual overhead incurred.
  - D. less than actual overhead incurred.



78. Overhead costs are underapplied if the amount applied to Work in Process is
- A. greater than estimated overhead.
  - B. less than estimated overhead.
  - C. greater than actual overhead incurred.
  - D. less than actual overhead incurred.
79. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. Which of the following would be correct?
- A. Overhead is underapplied by \$15,000
  - B. Overhead is underapplied by \$5,000
  - C. Overhead is overapplied by \$5,000
  - D. Overhead is overapplied by \$15,000
80. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. Which of the following would be correct?
- A. Overhead is underapplied by \$15,000
  - B. Overhead is underapplied by \$5,000
  - C. Overhead is overapplied by \$5,000
  - D. Overhead is overapplied by \$15,000

81. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. Which of the following would be correct?

- A. Overhead is underapplied by \$25,000
- B. Overhead is underapplied by \$12,500
- C. Overhead is overapplied by \$12,500
- D. Overhead is overapplied by \$25,000

82. The most common method for disposing of over- or underapplied overhead is to

- A. recalculate the overhead rate for the period.
- B. recalculate the overhead rate for the next period.
- C. make a direct adjustment to Work in Process Inventory.
- D. make a direct adjustment to Cost of Goods Sold.

83. When disposed of, overapplied manufacturing overhead will

- A. increase Cost of Goods Sold.
- B. increase Finished Goods.
- C. decrease Cost of Goods Sold.
- D. decrease Finished Goods.

84. When disposed of, underapplied manufacturing overhead will

- A. increase Cost of Goods Sold.
- B. increase Finished Goods.
- C. decrease Cost of Goods Sold.
- D. decrease Finished Goods.

85. Underapplied overhead means

- A. too little overhead was applied to raw materials.
- B. actual overhead is greater than estimated overhead.
- C. finished goods will need to be credited.
- D. there is a debit balance remaining in the overhead account.

86. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Cost of Goods Sold would be credited for \$15,000
- B. Cost of Goods Sold would be credited for \$5,000
- C. Cost of Goods Sold would be debited for \$5,000
- D. Cost of Goods Sold would be debited for \$15,000

87. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?
- A. Manufacturing Overhead would be credited for \$5,000
  - B. Manufacturing Overhead would be credited for \$20,000
  - C. Manufacturing Overhead would be debited for \$5,000
  - D. Manufacturing Overhead would be debited for \$20,000
88. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?
- A. Cost of Goods Sold would be credited for \$15,000
  - B. Cost of Goods Sold would be credited for \$5,000
  - C. Cost of Goods Sold would be debited for \$5,000
  - D. Cost of Goods Sold would be debited for \$15,000
89. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?
- A. Manufacturing Overhead would be credited for \$5,000
  - B. Manufacturing Overhead would be credited for \$15,000
  - C. Manufacturing Overhead would be debited for \$5,000
  - D. Manufacturing Overhead would be debited for \$15,000

90. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Cost of Goods Sold would be credited for \$25,000
- B. Cost of Goods Sold would be credited for \$12,500
- C. Cost of Goods Sold would be debited for \$12,500
- D. Cost of Goods Sold would be debited for \$25,000

91. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Manufacturing Overhead would be credited for \$12,500
- B. Manufacturing Overhead would be credited for \$25,000
- C. Manufacturing Overhead would be debited for \$12,500
- D. Manufacturing Overhead would be debited for \$25,000

92. Cost of goods manufactured is the amount of cost transferred

- A. out of Finished Goods Inventory and into Cost of Goods Sold.
- B. out of Finished Goods Inventory and into Work in Process Inventory.
- C. out of Work in Process Inventory and into Manufacturing Overhead.
- D. out of Work in Process Inventory and into Finished Goods Inventory.

93. Cost of goods sold is the amount of cost transferred

- A. out of Finished Goods Inventory and into Cost of Goods Sold.
- B. out of Work in Process Inventory and into Cost of Goods Sold.
- C. out of Work in Process Inventory and into Manufacturing Overhead.
- D. out of Work in Process Inventory and into Finished Goods Inventory.

94. Ragtime Company had the following information for the year:

Direct materials used	\$110,000
Direct labor incurred (5,000 hours)	\$150,000
Actual manufacturing overhead incurred	\$166,000

Ragtime Company used a predetermined overhead rate of \$35 per direct labor hour for the year.

Assume the only inventory balance is an ending Work in Process Inventory balance of \$17,000.

What was cost of goods manufactured?

- A. \$260,000
- B. \$426,000
- C. \$435,000
- D. \$418,000

95. Ragtime Company had the following information for the year:

<b>Direct materials used</b>	<b>\$110,000</b>
<b>Direct labor incurred (5,000 hours)</b>	<b>\$150,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$166,000</b>

Ragtime Company used a predetermined overhead rate of \$35 per direct labor hour for the year.

Assume the only inventory balance is an ending Work in Process Inventory balance of \$17,000.

What was adjusted cost of goods sold?

- A. \$435,000
- B. \$426,000
- C. \$418,000
- D. \$409,000

96. Sawyer Company had the following information for the year:

<b>Direct materials used</b>	<b>\$190,000</b>
<b>Direct labor incurred (7,000 hours)</b>	<b>\$245,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$273,000</b>

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and

8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished

Goods Inventory balance of \$9,000. What was cost of goods manufactured?

- A. \$715,000
- B. \$708,000
- C. \$755,000
- D. \$706,000

97. Sawyer Company had the following information for the year:

<b>Direct materials used</b>	<b>\$190,000</b>
<b>Direct labor incurred (7,000 hours)</b>	<b>\$245,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$273,000</b>

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$9,000. What was adjusted cost of goods sold?

- A. \$715,000
- B. \$708,000
- C. \$706,000
- D. \$699,000

98. Jenkins Company had the following information for the year:

<b>Direct materials used</b>	<b>\$295,000</b>
<b>Direct labor incurred (9,000 hours)</b>	<b>\$245,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$343,000</b>

Jenkins Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$19,000. What was cost of goods manufactured?

- A. \$841,000
- B. \$860,000
- C. \$883,000
- D. \$900,000



99. Jenkins Company had the following information for the year:

<b>Direct materials used</b>	<b>\$295,000</b>
<b>Direct labor incurred (9,000 hours)</b>	<b>\$245,000</b>
<b>Actual manufacturing overhead incurred</b>	<b>\$343,000</b>

Jenkins Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$19,000. What was adjusted cost of goods sold?

- A. \$900,000
- B. \$883,000
- C. \$881,000
- D. \$864,000

100. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the direct materials used in production.

- A. \$20,000
- B. \$30,000
- C. \$110,000
- D. \$90,000

101. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the current manufacturing costs.

- A. \$245,000
- B. \$255,000
- C. \$65,000
- D. \$68,000

102. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the cost of goods manufactured.

- A. \$248,000
- B. \$242,000
- C. \$265,000
- D. \$235,000

103. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the unadjusted cost of goods sold.

- A. \$133,000
- B. \$242,000
- C. \$252,000
- D. \$255,000

104. Santos Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$40,000	\$30,000
Work in Process Inventory	\$35,000	??
Finished Goods Inventory	\$30,000	??

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Cost of goods sold	\$544,000

What was the ending Work in Process Inventory balance on 12/31?

- A. \$20,000
- B. \$11,000
- C. \$50,000
- D. \$54,000

105. Santos Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$40,000	\$30,000
Work in Process Inventory	\$35,000	??
Finished Goods Inventory	\$30,000	??

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Unadjusted cost of goods sold	\$544,000

What was the ending Finished Goods Inventory balance on 12/31?

- A. \$20,000
- B. \$11,000
- C. \$50,000
- D. \$54,000

106. Mendez Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Work in Process Inventory	??	\$35,000
Finished Goods Inventory	??	\$30,000

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Cost of goods sold	\$544,000

What was the beginning Work in Process Inventory balance on 1/1?

- A. \$49,000
- B. \$65,000
- C. \$50,000
- D. \$69,000



107. Mendez Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Work in Process Inventory	??	\$35,000
Finished Goods Inventory	??	\$30,000

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Unadjusted cost of goods sold	\$544,000

What was the beginning Finished Goods Inventory balance on 1/1?

- A. \$49,000
- B. \$65,000
- C. \$50,000
- D. \$69,000

108. Which of the following is incorrect regarding service firms?

- A. Each client or account is equivalent to a process in a process costing firm.
- B. The accounting system will track the time and resources spent serving a specific client or account.
- C. Managers of service firms need cost information to price their services, to budget and control costs, and to determine the profitability of different types of clients.
- D. The primary driver used to assign costs is billable hours.

109. Service firms:

- A. tend to use a lot of direct materials in addition to billable hours.
- B. tend to incur few indirect costs that cannot be traced to specific clients or accounts.
- C. assign indirect costs to individual clients or accounts based on an allocation base such as billable hours.
- D. use process costing to assign costs to individual clients or accounts.

110. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. What is the predetermined overhead rate that Optimum will use for the current year?

- A. \$1.50 per dollar of consultant labor cost.
- B. \$1.35 per dollar of consultant labor cost.
- C. \$0.67 per dollar of consultant labor cost.
- D. \$1.45 per dollar of consultant labor cost.

111. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. During the year, Optimum provided 64 hours of consulting services to Robert Howard for which Optimum pays an average of \$18 per hour. What is the total cost of providing services to Robert?

- A. \$2,707.
- B. \$2,822.
- C. \$1,924.
- D. \$2,880.

112. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. During the year, Optimum provided 42 hours of consulting services to Joan Clair for which Optimum pays an average of \$20 per hour. What is the total cost of providing services to Joan?

- A. \$2,100.
- B. \$1,974.
- C. \$2,058.
- D. \$1,403.

## Essay Questions

113. Deer Lake Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 150% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$10,000
Direct labor	\$25,000	f.	i.
Manufacturing overhead applied	a.	\$45,000	j.
Total manufacturing costs	b.	\$95,000	\$35,000
Beginning Work in Process	\$10,000	g.	\$ 6,000
Ending Work in process	\$ 8,000	\$10,000	k.
Cost of goods manufactured	c.	\$93,000	\$36,000
Beginning Finished Goods	\$12,000	\$12,000	l.
Ending Finished Goods	\$15,500	h.	\$ 4,000
Cost of goods sold (unadjusted)	d.	\$91,000	\$37,000

114. Barone Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 100% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$10,000
Direct labor	\$20,000	f.	i.
Manufacturing overhead applied	a.	\$30,000	j.
Total manufacturing costs	b.	\$80,000	\$30,000
Beginning Work in Process	\$10,000	g.	\$ 4,000
Ending Work in process	\$12,000	\$ 5,000	k.
Cost of goods manufactured	c.	\$79,000	\$28,000
Beginning Finished Goods	\$12,000	\$15,000	l.
Ending Finished Goods	\$ 9,000	h.	\$15,000
Cost of goods sold (unadjusted)	d.	\$81,000	\$26,000

115. Miller Park Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 80% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$20,000
Direct labor	\$25,000	\$20,000	i.
Manufacturing overhead applied	a.	f.	j.
Total manufacturing costs	b.	\$46,000	\$38,000
Beginning Work in Process	\$ 9,000	g.	\$ 6,000
Ending Work in process	\$ 7,000	\$ 6,000	\$ 3,000
Cost of goods manufactured	c.	\$45,000	k.
Beginning Finished Goods	\$13,000	\$ 8,000	l.
Ending Finished Goods	\$14,000	h.	\$ 8,000
Cost of goods sold (unadjusted)	d.	\$48,000	\$43,000

116. Nashville Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 200% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	a.	e.	\$ 20,000
Direct labor	\$20,000	f.	\$ 30,000
Manufacturing overhead applied	b.	\$45,000	i.
Total manufacturing costs	\$70,000	\$90,000	j.
Beginning Work in Process	c.	g.	\$ 15,000
Ending Work in process	\$10,000	\$ 3,000	\$ 17,000
Cost of goods manufactured	\$67,000	\$94,000	k.
Beginning Finished Goods	\$12,000	\$14,000	l.
Ending Finished Goods	d.	\$12,000	\$ 15,000
Cost of goods sold (unadjusted)	\$63,000	h.	\$113,000



117. Green Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #1478), as summarized below:

Job Number: #1478							
Date started: 4/07/20x5							
Date completed: 4/22/20x5							
Description: Cherry kitchen cabinets							
Direct Materials		Direct Labor			Applied Manufacturing Overhead		
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
385	\$ 300	128	16	\$ 288			
391	225	130	23	426			
395	150	133	12	264			
401	215						
Total	\$ 890	Total	51	\$ 978			
Cost Summary							
Direct Material Cost				\$ 890			
Direct Labor Cost				978			
Applied Manufacturing Overhead							
Total Cost							

Green Cabinets applies overhead to jobs at a rate of \$12 per direct labor hour.

- How much overhead would be applied to Job #1478?
- What is the total cost of Job #1478?

118. Russo Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #1887), as summarized below:

Job Number: #1887 Date started: 4/17/20x5 Date completed: 4/29/20x5 Description: Pecan kitchen cabinets								
Direct Materials		Direct Labor			Applied Manufacturing Overhead			
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>	
385	\$ 400	128	18	\$ 396				
391	325	130	29	696				
395	250	133	15	390				
401	415							
Total	\$ 1,390	Total	62	\$ 1,482				
<div>Cost Summary</div> <div> Direct Material Cost                      \$ 1,390  Direct Labor Cost                              1,482  Applied Manufacturing Overhead                      _____  Total Cost </div>								

Russo applies overhead to jobs at a rate of \$18 per direct labor hour.

- How much overhead would be applied to Job #1887?
- What is the total cost of Job #1887?

119. Geller Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #12478), as summarized below:

Job Number: #12478						
Date started: 8/05/20x5						
Date completed: 8/25/20x5						
Description: Butternut kitchen cabinets						
Direct Materials		Direct Labor			Applied Manufacturing Overhead	
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u> <u>Amount</u>
385	\$ 400	128	16	\$ 256		
391	324	130	23	390		
395	196	133	12	186		
401	455	141	15	330		
Total	\$ 1,375	Total	66	\$ 1,162		
Cost Summary						
Direct Material Cost				\$ 1,375		
Direct Labor Cost				1,162		
Applied Manufacturing Overhead						
Total Cost						

Geller applies overhead to jobs at a rate of \$15 per direct labor hour.

- How much overhead would be applied to Job #12478?
- What is the total cost of Job #12478?

120. Belton Custom Kitchens is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #3097), as summarized below:

Job Number: #3097						
Date started: 11/10/20x5						
Date completed: 11/27/20x5						
Description: Oak kitchen cabinets						
Direct Materials		Direct Labor			Applied Manufacturing Overhead	
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u> <u>Amount</u>
1385	\$ 300	2128	18	\$ 396		
1391	225	2130	27	621		
1395	150	2133	14	308		
1401	215	2144	18	414		
Total	\$ 890	Total	77	\$ 1,739		
Cost Summary						
Direct Material Cost				\$ 890		
Direct Labor Cost				1,739		
Applied Manufacturing Overhead						
Total Cost						

Belton applies overhead to jobs at a rate of \$17 per direct labor hour.

- How much overhead would be applied to Job #3097?
- What is the total cost of Job #3097?

121. Koebel Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Koebel Corp estimated total manufacturing overhead cost at \$500,000 and total direct labor hours of 50,000. Koebel Corp started the year with no beginning balances in either Work in Process Inventory or Finished Goods Inventory. During the year actual manufacturing overhead incurred was \$512,500 and 49,000 direct labor hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

122. Cadburn Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Cadburn Corp estimated total manufacturing overhead cost at \$250,000 and total direct labor hours of 50,000. During the year actual manufacturing overhead incurred was \$262,500 and 51,000 direct labor hours were used.
- a. Calculate the predetermined overhead rate.
  - b. Calculate how much manufacturing overhead will be applied to production.
  - c. Is overhead over- or underapplied? By how much?
  - d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

123. Chloe Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Chloe Corp estimated total manufacturing overhead cost at \$480,000 and total direct labor hours of 40,000. During the year actual manufacturing overhead incurred was \$462,500 and 41,000 direct labor hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

124. Blueberry Corp uses a job order costing system with manufacturing overhead applied to products on the basis of machine hours. For the upcoming year, Blueberry Corp estimated total manufacturing overhead cost at \$270,000 and total machine hours of 45,000. During the year actual manufacturing overhead incurred was \$258,750 and 46,600 machine hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?



125. Curtis Inc. uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$75,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$10,000	\$13,000
Work in Process Inventory	\$22,000	\$19,000
Finished Goods Inventory	\$34,000	\$41,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 91,000
Direct labor	\$145,000
Indirect materials used	\$ 6,000
Indirect labor	\$ 15,000
Factory equipment depreciation	\$ 24,000
Factory rent	\$ 18,000
Factory utilities	\$ 7,500
Other factory costs	\$ 6,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

126. Kayla Inc. uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$150,000 for the year; direct labor was estimated to total \$300,000.

	1/1	12/31
Raw Materials Inventory	\$20,000	\$26,000
Work in Process Inventory	\$44,000	\$38,000
Finished Goods Inventory	\$68,000	\$82,000

The following transactions have occurred during the year.

Raw materials purchases	\$200,000
Direct materials used	\$182,000
Direct labor	\$290,000
Indirect materials used	\$ 12,000
Indirect labor	\$ 30,000
Factory equipment depreciation	\$ 48,000
Factory rent	\$ 36,000
Factory utilities	\$ 15,000
Other factory costs	\$ 13,000

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

127. Cadbury Company uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$120,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$13,000	\$10,000
Work in Process Inventory	\$19,000	\$22,000
Finished Goods Inventory	\$41,000	\$32,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 91,000
Direct labor	\$125,000
Indirect materials used	\$ 12,000
Indirect labor	\$ 18,000
Factory equipment depreciation	\$ 28,000
Factory rent	\$ 22,000
Factory utilities	\$ 9,500
Other factory costs	\$ 8,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

128. Ecola Company uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$120,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$13,000	\$10,000
Work in Process Inventory	\$29,000	\$22,000
Finished Goods Inventory	\$41,000	\$32,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 87,000
Direct labor	\$135,000
Indirect materials used	\$ 16,000
Indirect labor	\$ 19,000
Factory equipment depreciation	\$ 28,000
Factory rent	\$ 15,000
Factory utilities	\$ 11,500
Other factory costs	\$ 8,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over or under-applied overhead
- Calculate adjusted cost of goods sold

129. Josie Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$120,000.
- b. Issued \$115,000 in raw materials to production (\$22,000 were not traceable to specific jobs).
- c. Incurred \$115,000 in direct labor costs (14,375 hours) and \$62,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory lease \$24,000 (paid in cash); depreciation on equipment \$20,000; custodial supplies \$7,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$75,000; sales commissions \$88,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$10 per direct labor hour.
- g. Completed jobs costing a total of \$345,000.
- h. Sold jobs for \$425,000 on account. The cost of the jobs was \$342,000.
- i. Closed the Manufacturing Overhead account balance.

Prepare the journal entries to record these transactions.

130. Frontier Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$240,000.
- b. Issued \$230,000 in raw materials to production (\$32,000 were not traceable to specific jobs).
- c. Incurred \$242,000 in direct labor costs (24,120 hours) and \$92,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory utilities \$24,000 (paid in cash); depreciation on equipment \$45,000; indirect supplies \$17,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$75,000; sales salaries \$88,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$9 per direct labor hour.
- g. Completed jobs costing a total of \$644,000.
- h. Sold jobs for \$856,000 on account. The cost of the jobs was \$642,000.
- i. Closed the manufacturing overhead account balance.

Prepare the journal entries to record these transactions.

131. Northwest Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$150,000.
- b. Issued \$130,000 in raw materials to production (\$34,000 were not traceable to specific jobs).
- c. Incurred \$144,000 in direct labor costs (14,120 hours) and \$62,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory lease \$36,000 (paid in cash); depreciation on equipment \$30,000; indirect supplies \$13,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$45,000; sales commissions \$48,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$13 per direct labor hour.
- g. Completed jobs costing a total of \$415,000.
- h. Sold jobs for \$625,000 on account. The cost of the jobs was \$412,000.
- i. Closed the Manufacturing Overhead account balance.

Prepare the journal entries to record these transactions.

132. Shellenback Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$200,000.
- b. Issued \$185,000 in raw materials to production (\$12,000 were not traceable to specific jobs).
- c. Incurred \$155,000 in direct labor costs (14,750 hours), \$52,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory lease \$22,000 (paid in cash); depreciation on equipment \$26,000; factory utilities \$13,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$55,000; sales commissions \$58,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$9 per direct labor hour.
- g. Completed jobs costing a total of \$457,000.
- h. Sold jobs for \$735,000 on account. The cost of the jobs was \$441,000.
- i. Closed the manufacturing overhead account balance.

Prepare the journal entries to record these transactions.



133. Highview Corp. applies manufacturing overhead to production at 125% of direct labor cost. During 20x5, manufacturing overhead of \$100,000 was applied to production; actual manufacturing overhead was \$109,000. Beginning Work in Process Inventory was \$15,000 and beginning Finished Goods Inventory was \$35,000. Work in Process Inventory increased by 10% during the year and Finished Goods Inventory decreased by 20% during the year. Sales for 20x5 were \$450,000, yielding a \$130,000 gross profit.

Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	_____
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	_____
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	_____
Unadjusted Cost of Goods Sold	
Overhead adjustment	_____
Adjusted Cost of Goods Sold	

134. Oscar Corp. applies manufacturing overhead to production at 150% of direct labor cost. During 20x5, manufacturing overhead of \$180,000 was applied to production; actual manufacturing overhead was \$199,000. Beginning Work in Process Inventory was \$20,000 and ending Work in Process Inventory was \$24,000. Beginning Finished Goods Inventory was \$42,000, ending Finished Goods Inventory was \$39,000. Sales for 20x5 were \$580,000, yielding a \$117,000 gross profit. Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	
Unadjusted Cost of Goods Sold	
Overhead adjustment	
Adjusted Cost of Goods Sold	

135. Superior Corp. applies manufacturing overhead to production at 75% of direct labor cost. During 20x5, manufacturing overhead of \$150,000 was applied to production; actual manufacturing overhead was \$156,000. Ending Work in Process Inventory was \$22,000 and ending Finished Goods Inventory was \$36,000. Work in Process Inventory increased by 10% during the year and Finished Goods Inventory increased by 20% during the year. Unadjusted Cost of Goods Sold was \$575,000.

Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	_____
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	_____
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	_____
Unadjusted Cost of Goods Sold	_____
Overhead adjustment	_____
Adjusted Cost of Goods Sold	

136. Christine Corp. applies manufacturing overhead to production at 80% of direct labor cost. During 20x5, manufacturing overhead of \$200,000 was applied to production; actual manufacturing overhead was \$189,000. Beginning Work in Process Inventory was \$25,000, and beginning Finished Goods Inventory was \$45,000. Work in Process Inventory decreased by 20% during the year and Finished Goods Inventory decreased by 10% during the year. Adjusted Cost of Goods Sold was \$623,500 for 20x5.

Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	
Unadjusted Cost of Goods Sold	
Overhead adjustment	
Adjusted Cost of Goods Sold	

137. Pinnacle Consulting employs two CPAs, each having a different area of specialization. Judy specializes in tax consulting and Steve specializes in management consulting. Pinnacle expects to incur total overhead costs of \$519,750 during the year and applies overhead based on annual salary costs. Judy is a senior partner, her annual salary is \$225,000, and she is expected to bill 2,000 hours during the year. Steve is a senior associate, his annual salary is \$121,500, and he is expected to bill 1,800 hours during the year.
- Calculate the predetermined overhead rate.
  - Assuming that the hourly billing rate should be set to cover the total cost of services plus a 20% markup, compute the hourly billing rates for Judy and Steve.

138. Ace Architects employs two architects, each having a different area of specialization. Caitlin specializes in industrial commercial construction and Zachary specializes in residential construction. Ace expects to incur total overhead costs of \$779,625 during the year and applies overhead based on annual salary costs. Caitlin is a senior partner, her annual salary is \$168,750, and she is expected to bill 2,000 hours during the year. Zachary is a senior associate, his annual salary is \$91,125, and he is expected to bill 1,800 hours during the year.
- Calculate the predetermined overhead rate.
  - Assuming that the hourly billing rate should be set to cover the total cost of services plus a 20% markup, compute the hourly billing rates for Caitlin and Zachary.

## Chapter 02 Job Order Costing Answer Key

### True / False Questions

1. Process costing is used when all of the products produced are unique.

**FALSE**

Process costing is used when each unit of the final product comes out identical to the next.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Process costing*

2. A marketing consulting firm would most likely use process costing.

**FALSE**

A marketing consulting firm is more likely to use job order costing, which is used by companies that offer customized or unique products or services.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Process costing*

3. A law firm would most likely use job order costing.

**TRUE**

A law firm is likely to use job order costing, as each client receives a unique service from the firm.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Job order costing*

4. When job order costing is used, costs are accumulated on a job cost sheet.

**TRUE**

A job cost sheet is used for each unique job, project, or customer.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Job order costing*



5. Process costing averages the total cost of the process over the number of units produced.

**TRUE**

Process costing breaks the production process down into its basic steps, or processes, and then averages the total cost of the process over the number of units produced.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Process costing*

6. Source documents are used to assign all manufacturing costs to jobs.

**FALSE**

Direct materials and direct labor are assigned to jobs using source documents such as a materials requisition form and a labor time ticket. However, manufacturing overhead is applied using a predetermined overhead rate.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Assign manufacturing costs to jobs*

7. A materials requisition form is used to authorize the purchase of direct materials.

**FALSE**

A materials requisition form is used to control the physical flow of materials out of inventory and into production, and record the cost of raw materials in the accounting system.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Topic: Materials requisition form*

8. Direct labor costs are recorded using labor time tickets.

**TRUE**

A direct labor time ticket shows how much time a worker has spent on various jobs each week, and the cost of that time.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Topic: Direct labor time ticket*

9. A job cost sheet will record the direct materials and direct labor used by the job but not the manufacturing overhead applied.

**FALSE**

A job cost sheet summarizes all of the costs incurred on a specific job.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Topic: Job cost sheet*

10. A predetermined overhead rate is calculated by dividing estimated total manufacturing overhead cost by estimated units in the allocation base.

**TRUE**

This is the formula for the predetermined overhead rate.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

11. The predetermined overhead rate is estimated at the end of the period and used to assign manufacturing overhead to jobs that were completed during the period.

**FALSE**

Accountants estimate the predetermined overhead rate in advance, before the accounting period begins, and use it throughout the period to assign manufacturing overhead costs to specific jobs.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

12. Allocation base and cost driver are two terms that can often be used interchangeably.

**TRUE**

The following terms are used somewhat interchangeably: Indirect Cost and Overhead; Assign, Allocate, and Apply; Allocation Base and Cost Driver.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

13. The Raw Materials Inventory account shows the cost of only direct materials purchased during the period.

**FALSE**

The Raw Materials Inventory account shows the cost of all materials purchased but not yet issued into production, and includes both direct and indirect material purchases.

*AACSB: Reflective thinking*

*A/CPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

14. Indirect materials are recorded directly on the job cost sheet.

**FALSE**

Indirect materials are not recorded directly to the job cost sheet or Work in Process Inventory. Rather, these indirect costs are accumulated in the Manufacturing Overhead account and will be assigned to the product using the predetermined overhead rate.

*AACSB: Reflective thinking*

*A/CPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

15. Labor that can be traced to a specific job is recorded directly on the job cost sheet.

**TRUE**

If the labor can be traced to a specific job, the cost is added to the job cost sheet and the Work in Process Inventory account.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record labor costs*

16. When manufacturing overhead is applied to a job, a credit is made to the Work in Process account.

**FALSE**

Applied manufacturing overhead is credited to Work in Process inventory.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

17. When goods are completed, a debit is made to Work in Process Inventory and a credit is made to Finished Goods Inventory.

**FALSE**

When a job is completed, its total manufacturing cost is transferred out of Work in Process Inventory with a credit, and into Finished Goods Inventory with a debit.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

18. The total manufacturing cost for a job is based on the amount of applied overhead using the predetermined overhead rate.

**TRUE**

The total manufacturing cost is based on the amount of overhead applied using the predetermined overhead rate.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

19. Actual manufacturing overhead costs are debited to the Manufacturing Overhead account.

**TRUE**

Actual manufacturing overhead costs are recorded on the debit side of the Manufacturing Overhead account.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

20. Commissions expense and advertising expense are included as part of manufacturing overhead and treated as a product cost.

**FALSE**

Instead of being treated as part of the product cost (included in inventory and, eventually, cost of goods sold), nonmanufacturing costs such as advertising expense and commissions expense are expensed during the period in which they are incurred.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record nonmanufacturing costs*



21. If there is a debit balance in the Manufacturing Overhead account at the end of the period, overhead was underapplied.

**TRUE**

If there is a debit balance in the Manufacturing Overhead account at the end of the period, actual is greater than applied overhead, so overhead was underapplied.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

22. The most common method for disposing of the balance in Manufacturing Overhead is to make a direct adjustment to Cost of Goods Sold.

**TRUE**

The most common method for disposing of the balance in Manufacturing Overhead is to make a direct adjustment to Cost of Goods Sold. Doing so makes sense as long as most of the jobs worked on during the period were completed and sold.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

23. To eliminate underapplied overhead at the end of the year, Manufacturing Overhead would be debited and Cost of Goods Sold would be credited.

**FALSE**

If manufacturing overhead is underapplied during the year, Manufacturing Overhead will need to be credited to bring the account balance to zero, while Cost of Goods Sold would be debited.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

24. To eliminate underapplied overhead at the end of the year, Manufacturing Overhead would be credited and Cost of Goods Sold would be debited.

**TRUE**

If manufacturing overhead is underapplied during the year, Manufacturing Overhead will need to be credited to bring the account balance to zero, while Cost of Goods Sold would be debited.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

25. The total amount of cost assigned to jobs that were completed during the year is the cost of goods sold.

**FALSE**

The total amount of cost assigned to jobs that were completed during the year is the cost of goods manufactured.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

26. For service firms, the primary driver used to assign cost is direct material.

**FALSE**

Because service firms tend to be labor intensive, the primary driver used to assign cost is billable hours.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

27. In a service firm, the cost associated with time that employees spend on training, paperwork, and supervision is considered part of manufacturing overhead.

**TRUE**

Service firms incur many indirect costs that cannot be traced to specific clients or accounts. Examples include the nonbillable time that employees spend on training, paperwork, and supervision. These indirect costs are treated just like manufacturing overhead in a factory.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

## Multiple Choice Questions

28. Which of the following types of firms would most likely use process costing?

- A. Superior Auto Body & Repair
- B. Crammond Custom Cabinets
- C. Sunshine Soft Drinks
- D. Jackson & Taylor Tax Service

Process costing is used by companies that make standardized or homogeneous products or services, such as a soft drink company.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Process costing*

29. Which of the following types of firms would most likely use job order costing?

- A. Happy-Oh Cereal Company
- B. Huey, Lewey & Dewie, Attorneys**
- C. SoooSweet Beverage
- D. C-5 Cement Company

Job order costing is used in companies that offer customized or unique products or services, such as a law firm.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Job order costing*

30. Which of the following is a characteristic of a manufacturing environment that would use job order costing?

- A. Standardized production process
- B. Continuous manufacturing
- C. Homogenous products
- D.** Differentiated products

Job order costing is used in companies that offer customized or unique products or services.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Describe the key differences between job order costing and process costing.*

*Topic: Job order costing*

31. The cost of materials used on a specific job is first captured on which source document?

- A. Cost driver sheet
- B.** Materials requisition form
- C. Labor time ticket
- D. Process cost sheet

The materials requisition form lists the quantity and cost of the direct materials used on a specific job.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost*

sheet.

Topic: Materials requisition form

32. The source document that captures how much time a worker has spent on various jobs during the period is a

- A. Cost driver sheet.
- B. Materials requisition form.
- C. Labor time ticket.
- D. Job cost sheet.

A direct labor time ticket shows how much time a worker has spent on various jobs each week, as well as the cost of that time.

AACSB: Reflective thinking

AICPA FN: Measurement

Blooms: Remember

Difficulty: 1 Easy

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.

Topic: Direct labor time ticket

33. All the costs assigned to an individual job are summarized on a

- A. Cost driver sheet.
- B. Job cost sheet.
- C. Materials requisition form.
- D. Labor time ticket.

The job cost sheet is a document that summarizes all of the costs incurred on a specific job.

AACSB: Reflective thinking

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Topic: Job cost sheet*

34. A predetermined overhead rate is calculated using which formula?
- A. Actual manufacturing overhead cost/estimated units in the allocation base
  - B. Estimated units in the allocation base/estimated manufacturing overhead cost
  - C. Estimated manufacturing overhead cost/actual units in the allocation base
  - D. Estimated manufacturing overhead cost/estimated units in the allocation base

This is the formula for the predetermined overhead rate.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*



35. Manufacturing overhead is applied to each job using which formula?

- A. Predetermined overhead rate x actual value of the allocation base for the job
- B. Predetermined overhead rate x estimated value of the allocation base for the job
- C. Actual overhead rate x estimated value of the allocation base for the job
- D. Predetermined overhead rate/actual value of the allocation base for the job

This is the formula for applied manufacturing overhead.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

36. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, actual labor hours were 21,000. The predetermined manufacturing overhead rate would be

- A. \$20.00
- B. \$0.05
- C. \$20.75
- D. \$19.05

$$\$400,000/20,000 = \$20.00.$$

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

37. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, actual labor hours were 21,000. The amount of manufacturing overhead applied to production would be
- A. \$400,000
  - B. \$415,000
  - C. \$420,000
  - D. \$435,750

Predetermined overhead rate =  $\$400,000 / 20,000 = \$20.00$ . Applied manufacturing overhead =  $\$20.00 \times 21,000 = \$420,000$ .

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.

Topic: Predetermined overhead rates

38. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, actual labor hours were 21,000. The predetermined overhead rate would be

- A. \$10.00
- B. \$1.05
- C. \$10.75
- D. \$10.24

$$\$200,000/20,000 = \$10.00$$

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

39. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, actual labor hours were 21,000. The amount of manufacturing overhead applied to production would be

- A. \$200,000
- B. \$215,000
- C. \$210,000
- D. \$225,750

$$\text{Predetermined overhead rate} = \$200,000/20,000 = \$10.00. \text{ Applied manufacturing overhead} = \$10.00 \times 21,000 = \$210,000.$$

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

40. Manufacturing overhead was estimated to be \$500,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$450,000, actual direct labor hours were 19,000. The predetermined overhead rate would be

A. \$22.50

**B.** \$25.00

C. \$23.68

D. \$26.32

$$\$500,000/20,000 = \$25.00$$

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

41. Manufacturing overhead was estimated to be \$500,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$450,000, actual direct labor hours were 19,000. The amount of manufacturing overhead applied to production would be
- A. \$500,000
  - B. \$450,000
  - C. \$427,500
  - D. \$475,000

Predetermined overhead rate =  $\$500,000 / 20,000 = \$25.00$ . Applied manufacturing overhead =  $\$25.00 \times 19,000 = \$475,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

42. Kilt Company had the following information for the year:

Direct materials used	\$110,000
Direct labor incurred (5,000 hours)	\$150,000
Actual manufacturing overhead incurred	\$166,000

Kilt Company used a predetermined overhead rate of \$42 per direct labor hour for the year and estimated that direct labor hours would total 5,500 hours. Assume the only inventory balance is an ending Work in Process balance of \$17,000. How much overhead was applied during the year?

- A. \$231,000
- B. \$150,000
- C. \$166,000
- D. \$210,000

$$\$42.00 \times 5,000 = \$210,000.$$

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

43. Sawyer Company had the following information for the year:

Direct materials used	\$190,000
Direct labor incurred (7,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$273,000

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods balance of \$9,000. How much overhead was applied during the year?

- A. \$245,000
- B. \$273,000
- C. \$280,000
- D. \$320,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40.00$ . Applied manufacturing overhead =  $\$40.00 \times 7,000 = \$280,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*

44. Jackson Company had the following information for the year:

Direct materials used	\$295,000
Direct labor incurred (9,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$343,000

Jackson Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods balance of \$19,000. How much overhead was applied during the year?

- A. \$245,000
- B. \$343,000
- C. \$360,000
- D. \$320,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40.00$ . Applied manufacturing overhead =  $\$40.00 \times 9,000 = \$360,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Topic: Predetermined overhead rates*



45. Which of the following represents the cost of materials purchased but not yet issued to production?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

Raw Materials Inventory represents the cost of materials purchased from suppliers but not yet used in production.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

46. Which of the following represents the accumulated costs of jobs as yet incomplete?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

Work in Process Inventory represents the total cost of jobs that are still in process.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

47. Which of the following represents the cost of jobs completed but not yet sold?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

Once goods are finished, their costs are transferred out of Work in Process Inventory and into Finished Goods Inventory until they are sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

48. Which of the following represents the cost of the jobs sold during the period?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

Once a job is sold, its total cost is transferred out of Finished Goods Inventory and into Cost of Goods Sold.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

49. When manufacturing overhead is applied to production, which of the following accounts is credited?
- A. Raw Materials Inventory
  - B. Work in Process Inventory
  - C. Finished Goods Inventory
  - D. Manufacturing Overhead

When manufacturing overhead is applied to production, Work in Process Inventory is debited and the Manufacturing Overhead account is credited.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

50. When materials are purchased, which of the following accounts is debited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When materials are purchased, they are initially recorded in Raw Materials Inventory with a debit to the account.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

51. When direct materials are used in production, which of the following accounts is debited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When direct materials are used in production, the cost is transferred from Raw Materials Inventory (with a credit) to Work in Process Inventory (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

52. When direct materials are used in production, which of the following accounts is credited?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When direct materials are used in production, the cost is transferred from Raw Materials Inventory (with a credit) to Work in Process Inventory (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

53. When units are completed, the cost associated with the job is credited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When a job is completed, its cost is transferred from Work in Process Inventory (with a credit) to Finished Goods Inventory (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

54. When units are sold, the cost associated with the units is credited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When units are sold, their cost is transferred from Finished Goods Inventory (with a credit) to Cost of Goods Sold (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

55. When units are completed, the cost associated with the job is debited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When a job is completed, its cost is transferred from Work in Process Inventory (with a credit) to Finished Goods Inventory (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

56. When units are sold, the cost associated with the units is debited to which account?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

When units are sold, their cost is transferred from Finished Goods Inventory (with a credit) to Cost of Goods Sold (with a debit).

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

57. When materials are placed into production,

- A. Raw Materials Inventory is debited if the materials are traced directly to the job.
- B.** Work in Process Inventory is debited if the materials are traced directly to the job.
- C. Manufacturing Overhead is debited if the materials are traced directly to the job.
- D. Raw Materials Inventory is credited only if the materials are traced directly to the job, otherwise manufacturing overhead is credited.

When direct materials are placed into production, the cost is transferred from Raw Materials Inventory with a credit, and debited to Work in Process Inventory.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

58. If materials being placed into production are not traced to a specific job,

- A. Raw Materials Inventory would be debited.
- B. Work in Process Inventory would be debited.
- C.** Manufacturing Overhead would be debited.
- D. Manufacturing Overhead would be credited.

When indirect materials are placed into production, the cost is transferred from Raw Materials Inventory with a credit, and debited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*



*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

59. In recording the purchase of materials that are not traced to any specific job, which of the following is correct?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

When indirect materials are purchased, they are debited to raw materials inventory.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record the purchase and issue of materials*

60. Which of the following would be used to record the labor cost that is traceable to a specific job?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

As direct labor costs are incurred, they are debited to Work in Process Inventory.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record labor costs*

61. Which of the following would be used to record the labor cost that is not traceable to a specific job?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

Actual indirect labor costs are accumulated on the debit side of the Manufacturing Overhead account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record labor costs*

62. Which of the following would be used to record the usage of indirect manufacturing resources?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

All actual indirect manufacturing costs are accumulated in the Manufacturing Overhead account on the debit side of the account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhea*

63. Which of the following would be used to record the depreciation of manufacturing equipment?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

Actual indirect manufacturing costs are accumulated in the Manufacturing Overhead account on the debit side of the account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

64. Which of the following would be used to record the property taxes on a factory building?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

Actual indirect manufacturing costs are accumulated in the Manufacturing Overhead account on the debit side of the account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

65. Which of the following would be used to record the factory supervisor's salary?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Manufacturing Overhead would be credited

Actual indirect manufacturing costs are accumulated in the Manufacturing Overhead account on the debit side of the account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

66. Which of the following would be used to apply manufacturing overhead to production for the period?

- A. Raw Materials Inventory would be debited
- B. Work in Process Inventory would be debited
- C. Manufacturing Overhead would be debited
- D. Work in Process Inventory would be credited

When manufacturing overhead is applied to production, Work in Process Inventory is debited and the Manufacturing Overhead account is credited.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

67. Which of the following would be used to apply manufacturing overhead to production for the period?

- A. Credit to Raw Materials Inventory
- B. Credit to Work in Process Inventory
- C. Debit to Manufacturing Overhead
- D. Credit to Manufacturing Overhead

When manufacturing overhead is applied to production, Work in Process Inventory is debited and the Manufacturing Overhead account is credited.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

68. Which of the following would be used to transfer the cost of completed goods during the period?

- A. Credit to Raw Materials Inventory
- B. Credit to Work in Process Inventory**
- C. Debit to Manufacturing Overhead
- D. Credit to Manufacturing Overhead

When a job is completed, its total manufacturing cost is transferred out of Work in Process Inventory with a credit and into Finished Goods Inventory with a debit.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Transfer costs to finished goods inventory and cost of goods sold*

69. If a company uses a predetermined overhead rate, which of the following statements is correct?

- A. Manufacturing Overhead will be debited for estimated overhead
- B. Manufacturing Overhead will be credited for estimated overhead
- C. Manufacturing Overhead will be debited for actual overhead**
- D. Manufacturing Overhead will be credited for actual overhead

Actual manufacturing overhead costs are accumulated on the debit side of the Manufacturing Overhead account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

70. Which of the following accounts is not affected by applied manufacturing overhead?

- A. Raw Materials Inventory
- B. Work in Process Inventory
- C. Finished Goods Inventory
- D. Cost of Goods Sold

Manufacturing overhead is applied to Work in Process inventory; the cost moves to Finished Goods when goods are completed, and Cost of Goods Sold when they are sold.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*



71. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. The amount debited to the Manufacturing Overhead account would be

A. \$400,000  
B. \$415,000  
C. \$420,000  
D. \$435,750

Actual manufacturing overhead costs are debited to the Manufacturing Overhead account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhead*

72. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. The amount credited to the Manufacturing Overhead account would be

A. \$400,000  
B. \$415,000  
C. \$420,000  
D. \$435,750

Predetermined overhead rate =  $\$400,000 / 20,000 = \$20.00$ . Applied manufacturing overhead =  $\$20.00 \times 21,000 = \$420,000$ , which is credited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhea*

73. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. The amount debited to the Manufacturing Overhead account would be

- A. \$200,000
- B.** \$215,000
- C. \$210,000
- D. \$225,750

Actual manufacturing overhead costs of \$215,000 are accumulated on the debit side of the Manufacturing Overhead account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhea*

74. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. The amount credited to the Manufacturing Overhead account would be

- A. \$200,000
- B. \$215,000
- C. \$210,000
- D. \$225,750

Predetermined overhead rate =  $\$200,000 / 20,000 = \$10.00$ . Applied manufacturing overhead =  $\$10.00 \times 21,000 = \$210,000$ , which would be credited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

75. Overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual overhead was \$225,000, and actual direct labor hours were 19,000. The amount debited to the manufacturing overhead account would be

- A. \$250,000
- B. \$225,000**
- C. \$213,750
- D. \$237,500

Actual manufacturing overhead costs of \$225,000 are debited to the Manufacturing Overhead account.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record actual manufacturing overhea*

76. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. The amount credited to the Manufacturing Overhead account would be

- A. \$250,000
- B. \$225,000
- C. \$213,750
- D. \$237,500

Predetermined overhead rate =  $\$250,000 / 20,000 = \$12.50$ . Applied manufacturing overhead =  $\$12.50 \times 19,000 = \$237,500$ , which is credited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Record applied manufacturing overhead*

77. Overhead costs are overapplied if the amount applied to Work in Process is

- A. greater than estimated overhead.
- B. less than estimated overhead.
- C. greater than actual overhead incurred.
- D. less than actual overhead incurred.

Overhead cost is overapplied if the amount applied is more than the actual overhead cost.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

78. Overhead costs are underapplied if the amount applied to Work in Process is

- A. greater than estimated overhead.
- B. less than estimated overhead.
- C. greater than actual overhead incurred.
- D. less than actual overhead incurred.

Overhead cost is underapplied if the amount applied is less than the actual overhead cost.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

79. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. Which of the following would be correct?

- A. Overhead is underapplied by \$15,000
- B. Overhead is underapplied by \$5,000
- C. Overhead is overapplied by \$5,000
- D. Overhead is overapplied by \$15,000

Predetermined overhead rate =  $\$400,000 / 20,000 = \$20.00$ . Applied manufacturing overhead =  $\$20.00 \times 21,000 = \$420,000$ . Overapplied overhead =  $\$420,000 - \$415,000 = \$5,000$ .

*AACSB: Analytic*

AICPA FN: Measurement

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.

Topic: Calculate overapplied and underapplied manufacturing overhead

80. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. Which of the following would be correct?

- A. Overhead is underapplied by \$15,000
- B. Overhead is underapplied by \$5,000**
- C. Overhead is overapplied by \$5,000
- D. Overhead is overapplied by \$15,000

Predetermined overhead rate =  $\$200,000 / 20,000 = \$10.00$ . Applied manufacturing overhead =  $\$10.00 \times 21,000 = \$210,000$ . Underapplied overhead =  $\$215,000 - \$210,000 = \$5,000$ .

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.

Topic: Calculate overapplied and underapplied manufacturing overhead

81. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. Which of the following would be correct?

- A. Overhead is underapplied by \$25,000
- B. Overhead is underapplied by \$12,500
- C. Overhead is overapplied by \$12,500
- D. Overhead is overapplied by \$25,000

Predetermined overhead rate =  $\$250,000 / 20,000 = \$12.50$ . Applied manufacturing overhead =  $\$12.50 \times 19,000 = \$237,500$ . Overapplied overhead =  $\$237,500 - \$225,000 = \$12,500$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

82. The most common method for disposing of over- or underapplied overhead is to

- A. recalculate the overhead rate for the period.
- B. recalculate the overhead rate for the next period.
- C. make a direct adjustment to Work in Process Inventory.
- D. make a direct adjustment to Cost of Goods Sold.

The most common method for disposing of the balance in Manufacturing Overhead is to make a direct adjustment to Cost of Goods Sold.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*



*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

83. When disposed of, overapplied manufacturing overhead will

- A. increase Cost of Goods Sold.
- B. increase Finished Goods.
- C. decrease Cost of Goods Sold.
- D. decrease Finished Goods.

If manufacturing overhead is overapplied, Cost of Goods sold should be adjusted downward since too much overhead was put in during the period.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

84. When disposed of, underapplied manufacturing overhead will

- A. increase Cost of Goods Sold.
- B. increase Finished Goods.
- C. decrease Cost of Goods Sold.
- D. decrease Finished Goods.

If manufacturing overhead is underapplied, Cost of Goods sold should be adjusted upward since not enough overhead was put in during the period.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

85. Underapplied overhead means

- A. too little overhead was applied to raw materials.
- B. actual overhead is greater than estimated overhead.
- C. finished goods will need to be credited.
- D. there is a debit balance remaining in the overhead account.

If overhead is underapplied, there is a debit balance in the account.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

86. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Cost of Goods Sold would be credited for \$15,000
- B. Cost of Goods Sold would be credited for \$5,000**
- C. Cost of Goods Sold would be debited for \$5,000
- D. Cost of Goods Sold would be debited for \$15,000

Predetermined overhead rate =  $\$400,000 / 20,000 = \$20.00$ . Applied manufacturing overhead =  $\$20.00 \times 21,000 = \$420,000$ . Overapplied overhead =  $\$420,000 - \$415,000 = \$5,000$ , which is credited to cost of goods sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

87. Manufacturing overhead was estimated to be \$400,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$415,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Manufacturing Overhead would be credited for \$5,000
- B. Manufacturing Overhead would be credited for \$20,000
- C. Manufacturing Overhead would be debited for \$5,000
- D. Manufacturing Overhead would be debited for \$20,000

Predetermined overhead rate =  $\$400,000 / 20,000 = \$20.00$ . Applied manufacturing overhead =  $\$20.00 \times 21,000 = \$420,000$ . Overapplied overhead =  $\$420,000 - \$415,000 = \$5,000$ , which is debited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

88. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Cost of Goods Sold would be credited for \$15,000
- B. Cost of Goods Sold would be credited for \$5,000
- C. Cost of Goods Sold would be debited for \$5,000
- D. Cost of Goods Sold would be debited for \$15,000

Predetermined overhead rate =  $\$200,000 / 20,000 = \$10.00$ . Applied manufacturing overhead =  $\$10.00 \times 21,000 = \$210,000$ . Underapplied overhead =  $215,000 - \$210,000 = \$5,000$ , which is debited to Cost of Goods Sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

89. Manufacturing overhead was estimated to be \$200,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$215,000, and actual labor hours were 21,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Manufacturing Overhead would be credited for \$5,000
- B. Manufacturing Overhead would be credited for \$15,000
- C. Manufacturing Overhead would be debited for \$5,000
- D. Manufacturing Overhead would be debited for \$15,000

Predetermined overhead rate =  $\$200,000 / 20,000 = \$10.00$ . Applied manufacturing overhead =  $\$10.00 \times 21,000 = \$210,000$ . Underapplied overhead =  $\$215,000 - \$210,000 = \$5,000$ , which is credited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

90. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Cost of Goods Sold would be credited for \$25,000
- B. Cost of Goods Sold would be credited for \$12,500**
- C. Cost of Goods Sold would be debited for \$12,500
- D. Cost of Goods Sold would be debited for \$25,000

Predetermined overhead rate =  $\$250,000 / 20,000 = \$12.50$ . Applied manufacturing overhead =  $\$12.50 \times 19,000 = \$237,500$ . Overapplied overhead =  $\$237,500 - \$225,000 = \$12,500$ , which is credited to Cost of Goods Sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

91. Manufacturing overhead was estimated to be \$250,000 for the year along with 20,000 direct labor hours. Actual manufacturing overhead was \$225,000, and actual direct labor hours were 19,000. To dispose of the balance in the Manufacturing Overhead account, which of the following would be correct?

- A. Manufacturing Overhead would be credited for \$12,500
- B. Manufacturing Overhead would be credited for \$25,000
- C. Manufacturing Overhead would be debited for \$12,500
- D. Manufacturing Overhead would be debited for \$25,000

Predetermined overhead rate =  $\$250,000 / 20,000 = \$12.50$ . Applied manufacturing overhead =  $\$12.50 \times 19,000 = \$237,500$ . Overapplied overhead =  $\$237,500 - \$225,000 = \$12,500$ , which is debited to Manufacturing Overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*



92. Cost of goods manufactured is the amount of cost transferred

- A. out of Finished Goods Inventory and into Cost of Goods Sold.
- B. out of Finished Goods Inventory and into Work in Process Inventory.
- C. out of Work in Process Inventory and into Manufacturing Overhead.
- D. out of Work in Process Inventory and into Finished Goods Inventory.

The total cost that is transferred out of Work in Process Inventory and into Finished Goods Inventory is called the cost of goods manufactured.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

93. Cost of goods sold is the amount of cost transferred

- A. out of Finished Goods Inventory and into Cost of Goods Sold.
- B. out of Work in Process Inventory and into Cost of Goods Sold.
- C. out of Work in Process Inventory and into Manufacturing Overhead.
- D. out of Work in Process Inventory and into Finished Goods Inventory.

When goods are sold, their cost is transferred out of Finished Goods Inventory and into Cost of Goods Sold.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

94. Ragtime Company had the following information for the year:

Direct materials used	\$110,000
Direct labor incurred (5,000 hours)	\$150,000
Actual manufacturing overhead incurred	\$166,000

Ragtime Company used a predetermined overhead rate of \$35 per direct labor hour for the year. Assume the only inventory balance is an ending Work in Process Inventory balance of \$17,000. What was cost of goods manufactured?

- A. \$260,000
- B. \$426,000
- C. \$435,000
- D. \$418,000

Applied manufacturing overhead =  $\$35 \times 5,000 = \$175,000$ . Cost of goods manufactured =  $\$110,000 + \$150,000 + \$175,000 + \$0 - \$17,000 = \$418,000$ .

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.

Topic: Prepare the cost of goods manufactured report

95. Ragtime Company had the following information for the year:

Direct materials used	\$110,000
Direct labor incurred (5,000 hours)	\$150,000
Actual manufacturing overhead incurred	\$166,000

Ragtime Company used a predetermined overhead rate of \$35 per direct labor hour for the year. Assume the only inventory balance is an ending Work in Process Inventory balance of \$17,000. What was adjusted cost of goods sold?

- A. \$435,000
- B. \$426,000
- C. \$418,000
- D. \$409,000

Applied manufacturing overhead =  $\$35 \times 5,000 = \$175,000$ . Cost of goods manufactured =  $\$110,000 + \$150,000 + \$175,000 + \$0 - \$17,000 = \$418,000$ . Overapplied overhead =  $\$175,000 - \$166,000 = \$9,000$ . Unadjusted cost of goods sold =  $\$0 + \$418,000 - \$0 = \$418,000$ . Adjusted cost of goods sold =  $\$418,000 - \$9,000 = \$409,000$ .

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.

Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.

Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.

Topic: Calculate overapplied and underapplied manufacturing overhead

Topic: Dispose of overapplied or underapplied manufacturing overhead

Topic: Prepare the cost of goods manufactured report

96. Sawyer Company had the following information for the year:

Direct materials used	\$190,000
Direct labor incurred (7,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$273,000

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$9,000. What was cost of goods manufactured?

- A. \$715,000
- B. \$708,000
- C. \$755,000
- D. \$706,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40$ . Applied manufacturing overhead =  $\$40 \times 7,000 = \$280,000$ . Cost of goods manufactured =  $\$190,000 + \$245,000 + \$280,000 + \$0 - \$0 = \$715,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

97. Sawyer Company had the following information for the year:

Direct materials used	\$190,000
Direct labor incurred (7,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$273,000

Sawyer Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$9,000. What was adjusted cost of goods sold?

- A. \$715,000
- B. \$708,000
- C. \$706,000
- D. \$699,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40$ . Applied manufacturing overhead =  $\$40 \times 7,000 = \$280,000$ . Cost of goods manufactured =  $\$190,000 + \$245,000 + \$280,000 + \$0 - \$0 = \$715,000$ . Overapplied overhead =  $\$280,000 - \$273,000 = \$7,000$ . Unadjusted cost of goods sold =  $\$0 + \$715,000 - \$9,000 = \$706,000$ . Adjusted cost of goods sold =  $\$706,000 - \$7,000 = \$699,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Prepare the cost of goods manufactured report*

98. Jenkins Company had the following information for the year:

Direct materials used	\$295,000
Direct labor incurred (9,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$343,000

Jenkins Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8,000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$19,000. What was cost of goods manufactured?

- A. \$841,000
- B. \$860,000
- C. \$883,000
- D. \$900,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40$ . Applied manufacturing overhead =  $\$40 \times 9,000 = \$360,000$ . Cost of goods manufactured =  $\$295,000 + \$245,000 + \$360,000 + \$0 - \$0 = \$900,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

99. Jenkins Company had the following information for the year:

Direct materials used	\$295,000
Direct labor incurred (9,000 hours)	\$245,000
Actual manufacturing overhead incurred	\$343,000

Jenkins Company used a predetermined overhead rate using estimated overhead of \$320,000 and 8000 estimated direct labor hours. Assume the only inventory balance is an ending Finished Goods Inventory balance of \$19,000. What was adjusted cost of goods sold?

- A. \$900,000
- B. \$883,000
- C. \$881,000
- D. \$864,000

Predetermined overhead rate =  $\$320,000 / 8,000 = \$40$ . Applied manufacturing overhead =  $\$40 \times 9,000 = \$360,000$ . Cost of goods manufactured =  $\$295,000 + \$245,000 + \$360,000 + \$0 - \$0 = \$900,000$ . Unadjusted cost of goods sold =  $\$0 + \$900,000 - \$19,000 = \$881,000$ . Overapplied overhead =  $\$360,000 - \$343,000 = \$17,000$ . Adjusted cost of goods sold =  $\$881,000 - \$17,000 = \$864,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Dispose of overapplied or underapplied manufacturing overhead*

*Topic: Prepare the cost of goods manufactured report*

100. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the direct materials used in production.

- A. \$20,000
- B. \$30,000
- C. \$110,000
- D. \$90,000

Direct materials used = \$20,000 + \$100,000 - \$0 - \$30,000 = \$90,000.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*



101. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the current manufacturing costs.

- A. \$245,000
- B. \$255,000
- C. \$65,000
- D. \$68,000

Direct materials used = \$20,000 + \$100,000 - \$0 - \$30,000 = \$90,000. Current manufacturing costs = \$90,000 + \$75,000 + \$80,000 = \$245,000.

*AACSB: Analytic*

*A/CPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

102. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the cost of goods manufactured.

- A. \$248,000
- B. \$242,000**
- C. \$265,000
- D. \$235,000

Direct materials used = \$20,000 + \$100,000 - \$0 - \$30,000 = \$90,000. Current manufacturing costs = \$90,000 + \$75,000 + \$80,000 = \$245,000. Cost of goods manufactured = \$15,000 + \$245,000 - \$18,000 = \$242,000.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

103. McGown Corp has the following information:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$20,000	\$30,000
Work in Process Inventory	\$15,000	\$18,000
Finished Goods Inventory	\$30,000	\$20,000

Additional information for the year is as follows:

Raw materials purchases	\$100,000
Direct labor	\$ 75,000
Manufacturing overhead applied	\$ 80,000
Indirect materials	\$ 0

Compute the unadjusted cost of goods sold.

- A. \$133,000
- B. \$242,000
- C. \$252,000
- D. \$255,000

Direct materials used = \$20,000 + \$100,000 - \$0 - \$30,000 = \$90,000. Current manufacturing costs = \$90,000 + \$75,000 + \$80,000 = \$245,000. Cost of goods manufactured = \$15,000 + \$245,000 - \$18,000 = \$242,000. Cost of goods sold = \$30,000 + \$242,000 - \$20,000 = \$252,000.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

104. Santos Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$40,000	\$30,000
Work in Process Inventory	\$35,000	??
Finished Goods Inventory	\$30,000	??

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Cost of goods sold	\$544,000

What was the ending Work in Process Inventory balance on 12/31?

- A. \$20,000
- B. \$11,000
- C. \$50,000
- D. \$54,000

Current manufacturing costs = \$200,000 + \$150,000 + \$160,000 = \$510,000. Cost of goods manufactured = 525,000 = \$35,000 + \$510,000 - ending Work in Process Inventory, so ending Work in Process Inventory = \$35,000 + \$510,000 - \$525,000 = \$20,000.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

105. Santos Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Raw Materials Inventory	\$40,000	\$30,000
Work in Process Inventory	\$35,000	??
Finished Goods Inventory	\$30,000	??

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Unadjusted cost of goods sold	\$544,000

What was the ending Finished Goods Inventory balance on 12/31?

- A. \$20,000
- B. \$11,000**
- C. \$50,000
- D. \$54,000

$\$544,000 = \$30,000 + \$525,000 - \text{ending Finished Goods Inventory}$ . Ending Finished Goods Inventory =  $\$30,000 + \$525,000 - \$544,000 = \$11,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

106. Mendez Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Work in Process Inventory	??	\$35,000
Finished Goods Inventory	??	\$30,000

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Cost of goods sold	\$544,000

What was the beginning Work in Process Inventory balance on 1/1?

- A. \$49,000
- B. \$65,000
- C. \$50,000
- D. \$69,000

Current manufacturing costs = \$200,000 + \$150,000 + \$160,000 = \$510,000. Cost of goods manufactured = \$525,000 = Beginning Work in Process Inventory + \$510,000 - \$35,000, so ending Work in Process Inventory = \$525,000 + \$35,000 - \$510,000 = \$50,000.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

107. Mendez Inc. had the following information for the preceding year:

	Beginning Inventory (1/1)	Ending Inventory (12/31)
Work in Process Inventory	??	\$35,000
Finished Goods Inventory	??	\$30,000

Additional information for the year is as follows:

Direct materials used	\$200,000
Direct labor	\$150,000
Manufacturing overhead applied	\$160,000
Cost of goods manufactured	\$525,000
Unadjusted cost of goods sold	\$544,000

What was the beginning Finished Goods Inventory balance on 1/1?

- A. \$49,000
- B. \$65,000
- C. \$50,000
- D. \$69,000

$\$544,000 = \text{Beginning Finished Goods Inventory} + \$525,000 - \$30,000$ . Beginning Finished Goods Inventory =  $\$544,000 + \$30,000 - \$525,000 = \$49,000$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

108. Which of the following is incorrect regarding service firms?

- A. Each client or account is equivalent to a process in a process costing firm.
- B. The accounting system will track the time and resources spent serving a specific client or account.
- C. Managers of service firms need cost information to price their services, to budget and control costs, and to determine the profitability of different types of clients.
- D. The primary driver used to assign costs is billable hours.

In service firms, each client or account is equivalent to a job in a manufacturing setting. All the other choices regarding service firms are correct.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*



109. Service firms:

- A. tend to use a lot of direct materials in addition to billable hours.
- B. tend to incur few indirect costs that cannot be traced to specific clients or accounts.
- C. assign indirect costs to individual clients or accounts based on an allocation base such as billable hours.
- D. use process costing to assign costs to individual clients or accounts.

Most service firms do not use a lot direct materials, tend to incur many indirect costs that cannot be traced to specific clients or accounts, and use job costing to assign costs to individual clients or accounts. Indirect costs are treated much like manufacturing overhead in a factory and are assigned using an allocation base such as billable hours.

*AACSB: Reflective thinking*

*AICPA FN: Measurement*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

110. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. What is the predetermined overhead rate that Optimum will use for the current year?

- A. \$1.50 per dollar of consultant labor cost.
- B. \$1.35 per dollar of consultant labor cost.
- C. \$0.67 per dollar of consultant labor cost.
- D. \$1.45 per dollar of consultant labor cost.

The predetermined overhead rate is  $\$750,000 / \$500,000 = \$1.50$  per dollar of consultant labor cost.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

111. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. During the year, Optimum provided 64 hours of consulting services to Robert Howard for which Optimum pays an average of \$18 per hour. What is the total cost of providing services to Robert?

- A. \$2,707.
- B. \$2,822.
- C. \$1,924.
- D. \$2,880.

The predetermined overhead rate is  $\$750,000 / \$500,000 = \$1.50$  per dollar of consultant labor cost. Consultant labor cost for providing services to Robert is \$1,152 ( $64 \times \$18$ ). Overhead is applied at \$1.50 per dollar of consultant labor cost =  $\$1,152 \times \$1.50 = \$1,728$ . Total cost of providing services to Robert =  $\$1,152 + \$1,728 = \$2,880$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

112. Optimum Finance Inc. provides budget, savings, and investment services to clients who want a stress-free financial lifestyle. The company customizes a program for each client based on their individual goals that includes budget recommendations, investment counseling, and savings techniques. The company uses a job order cost system that keeps track of the cost of the amount of time financial consultants spend with each client. Optimum applies all indirect operating costs (e.g., rent, utilities, and management salaries) as a percentage of the consultant's labor cost. During the most recent year, the firm estimated that it would pay \$500,000 to its consultants and incur indirect operating costs of \$750,000. Actual consultant labor costs were \$537,500 and actual indirect operating costs were \$725,000. During the year, Optimum provided 42 hours of consulting services to Joan Clair for which Optimum pays an average of \$20 per hour. What is the total cost of providing services to Joan?
- A. \$2,100.  
B. \$1,974.  
C. \$2,058.  
D. \$1,403.

The predetermined overhead rate is  $\$750,000 / \$500,000 = \$1.50$  per dollar of consultant labor cost. Consultant labor cost for providing services to Joan is \$840 ( $42 \times \$20$ ). Overhead is applied at \$1.50 per dollar of consultant labor cost =  $\$840 \times \$1.50 = \$1,260$ . Total cost of providing services to Joan =  $\$840 + \$1,260 = \$2,100$ .

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

## Essay Questions

113. Deer Lake Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 150% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$10,000
Direct labor	\$25,000	f.	i.
Manufacturing overhead applied	a.	\$45,000	j.
Total manufacturing costs	b.	\$95,000	\$35,000
Beginning Work in Process	\$10,000	g.	\$ 6,000
Ending Work in process	\$ 8,000	\$10,000	k.
Cost of goods manufactured	c.	\$93,000	\$36,000
Beginning Finished Goods	\$12,000	\$12,000	l.
Ending Finished Goods	\$15,500	h.	\$ 4,000
Cost of goods sold (unadjusted)	d.	\$91,000	\$37,000

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e. 20,000	\$10,000
Direct labor	\$25,000	f. 30,000	i. 10,000
Manufacturing overhead applied	a. 37,500	\$45,000	j. 15,000
Total manufacturing costs	b. 82,500	\$95,000	\$35,000
Beginning Work in Process	\$10,000	g. 8,000	\$ 6,000
Ending Work in process	\$ 8,000	\$10,000	k. 5,000
Cost of goods manufactured	c. 84,500	\$93,000	\$36,000
Beginning Finished Goods	\$12,000	\$12,000	l. 5,000
Ending Finished Goods	\$15,500	h. 14,000	\$ 4,000
Cost of goods sold (unadjusted)	d. 81,000	\$91,000	\$37,000

Feedback: Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs. Total manufacturing costs + Beginning WIP - Ending WIP = Cost of goods manufactured. Cost of goods manufactured + Beginning FG - Ending FG = Cost of goods sold (unadjusted).

AACSB: Analytic

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhea*

114. Barone Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 100% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$10,000
Direct labor	\$20,000	f.	i.
Manufacturing overhead applied	a.	\$30,000	j.
Total manufacturing costs	b.	\$80,000	\$30,000
Beginning Work in Process	\$10,000	g.	\$ 4,000
Ending Work in process	\$12,000	\$ 5,000	k.
Cost of goods manufactured	c.	\$79,000	\$28,000
Beginning Finished Goods	\$12,000	\$15,000	l.
Ending Finished Goods	\$ 9,000	h.	\$15,000
Cost of goods sold (unadjusted)	d.	\$81,000	\$26,000

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e. 20,000	\$10,000
Direct labor	\$20,000	f. 30,000	i. 10,000
Manufacturing overhead applied	a. 20,000	\$30,000	j. 10,000
Total manufacturing costs	b. 60,000	\$80,000	\$30,000
Beginning Work in Process	\$10,000	g. 4,000	\$ 4,000
Ending Work in process	\$12,000	\$ 5,000	k. 6,000
Cost of goods manufactured	c. 58,000	\$79,000	\$28,000
Beginning Finished Goods	\$12,000	\$15,000	l. 13,000
Ending Finished Goods	\$ 9,000	h. 13,000	\$15,000
Cost of goods sold (unadjusted)	d. 61,000	\$81,000	\$26,000

Feedback: Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs. Total manufacturing costs + Beginning WIP - Ending WIP = Cost of goods manufactured. Cost of goods manufactured + Beginning FG - Ending FG = Cost of goods sold (unadjusted).

AACSB: Analytic

A/CPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.

Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.

Topic: Prepare the cost of goods manufactured report

Topic: Record applied manufacturing overhead

115. Miller Park Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 80% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e.	\$20,000
Direct labor	\$25,000	\$20,000	i.
Manufacturing overhead applied	a.	f.	j.
Total manufacturing costs	b.	\$46,000	\$38,000
Beginning Work in Process	\$ 9,000	g.	\$ 6,000
Ending Work in process	\$ 7,000	\$ 6,000	\$ 3,000
Cost of goods manufactured	c.	\$45,000	k.
Beginning Finished Goods	\$13,000	\$ 8,000	l.
Ending Finished Goods	\$14,000	h.	\$ 8,000
Cost of goods sold (unadjusted)	d.	\$48,000	\$43,000

	Case #1	Case #2	Case #3
Direct materials used	\$20,000	e. 10,000	\$20,000
Direct labor	\$25,000	\$20,000	i. 10,000
Manufacturing overhead applied	a. 20,000	f. 16,000	j. 8,000
Total manufacturing costs	b. 65,000	\$46,000	\$38,000
Beginning Work in Process	\$ 9,000	g. 5,000	\$ 6,000
Ending Work in process	\$ 7,000	\$ 6,000	\$ 3,000
Cost of goods manufactured	c. 67,000	\$45,000	k. 41,000
Beginning Finished Goods	\$13,000	\$ 8,000	l. 10,000
Ending Finished Goods	\$14,000	h. 5,000	\$ 8,000
Cost of goods sold (unadjusted)	d. 66,000	\$48,000	\$43,000

Feedback: Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs. Total manufacturing costs + Beginning WIP - Ending WIP = Cost of goods manufactured. Cost of goods manufactured + Beginning FG - Ending FG = Cost of goods sold (unadjusted).

AACSB: Analytic

AICPA FN: Measurement



*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhea*

116. Nashville Inc. uses a job order costing system with manufacturing overhead applied to products at a rate of 200% of direct labor cost. Treating each case independently, find the missing amounts for a through l:

	Case #1	Case #2	Case #3
Direct materials used	a.	e.	\$ 20,000
Direct labor	\$20,000	f.	\$ 30,000
Manufacturing overhead applied	b.	\$45,000	i.
Total manufacturing costs	\$70,000	\$90,000	j.
Beginning Work in Process	c.	g.	\$ 15,000
Ending Work in process	\$10,000	\$ 3,000	\$ 17,000
Cost of goods manufactured	\$67,000	\$94,000	k.
Beginning Finished Goods	\$12,000	\$14,000	l.
Ending Finished Goods	d.	\$12,000	\$ 15,000
Cost of goods sold (unadjusted)	\$63,000	h.	\$113,000

	Case #1	Case #2	Case #3
Direct materials used	a. 10,000	e. 22,500	\$ 20,000
Direct labor	\$20,000	f. 22,500	\$ 30,000
Manufacturing overhead applied	b. 40,000	\$45,000	i. 60,000
Total manufacturing costs	\$70,000	\$90,000	j. 110,000
Beginning Work in Process	c. 7,000	g. 7,000	\$ 15,000
Ending Work in process	\$10,000	\$ 3,000	\$ 17,000
Cost of goods manufactured	\$67,000	\$94,000	k. 108,000
Beginning Finished Goods	\$12,000	\$14,000	l. 20,000
Ending Finished Goods	d. 16,000	\$12,000	\$ 15,000
Cost of goods sold (unadjusted)	\$63,000	h. 96,000	\$113,000

Feedback: Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs. Total manufacturing costs + Beginning WIP - Ending WIP = Cost of goods manufactured. Cost of goods manufactured + Beginning FG - Ending FG = Cost of goods sold (unadjusted).

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.

Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.

Topic: Prepare the cost of goods manufactured report

Topic: Record applied manufacturing overhead

117. Green Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #1478), as summarized below:

Job Number: #1478 Date started: 4/07/20x5 Date completed: 4/22/20x5 Description: Cherry kitchen cabinets								
Direct Materials		Direct Labor			Applied Manufacturing Overhead			
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>	
385	\$ 300	128	16	\$ 288				
391	225	130	23	426				
395	150	133	12	264				
401	215							
Total	\$ 890	Total	51	\$ 978				
Cost Summary								
Direct Material Cost					\$	890		
Direct Labor Cost						978		
Applied Manufacturing Overhead								
Total Cost								

Green Cabinets applies overhead to jobs at a rate of \$12 per direct labor hour.

- a. How much overhead would be applied to Job #1478?  
b. What is the total cost of Job #1478?

- a.  $\$612 = 51 \text{ hours} \times \$12$   
b.  $\$2,480 = \$890 + \$978 + \$612$

Feedback: To apply manufacturing overhead, multiply the predetermined overhead rate by the actual value of the allocation base. The total cost of the job is direct materials plus direct labor plus applied manufacturing overhead.

AACSB: Analytic

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

118. Russo Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #1887), as summarized below:

Job Number: #1887						
Date started: 4/17/20x5						
Date completed: 4/29/20x5						
Description: Pecan kitchen cabinets						
Direct Materials		Direct Labor			Applied Manufacturing Overhead	
Req #	Amount	Ticket	Hours	Amount	Hours	Rate
385	\$ 400	128	18	\$ 396		
391	325	130	29	696		
395	250	133	15	390		
401	415					
Total	\$ 1,390	Total	62	\$ 1,482		
Cost Summary						
Direct Material Cost				\$ 1,390		
Direct Labor Cost				1,482		
Applied Manufacturing Overhead						
Total Cost						

Russo applies overhead to jobs at a rate of \$18 per direct labor hour.

- How much overhead would be applied to Job #1887?
- What is the total cost of Job #1887?

- $\$1,116 = 62 \text{ hours} \times \$18$
- $\$3,988 = \$1,390 + \$1,482 + \$1,116$

Feedback: To apply manufacturing overhead, multiply the predetermined overhead rate by the actual value of the allocation base. The total cost of the job is direct materials plus direct labor plus applied manufacturing overhead.

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost

*sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

119. Geller Cabinets is a custom cabinet builder. They recently completed a set of kitchen cabinets (Job #12478), as summarized below:

Job Number: #12478							
Date started: 8/05/20x5							
Date completed: 8/25/20x5							
Description: Butternut kitchen cabinets							
Direct Materials		Direct Labor			Applied Manufacturing Overhead		
<u>Req #</u>	<u>Amount</u>	<u>Ticket</u>	<u>Hours</u>	<u>Amount</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
385	\$ 400	128	16	\$ 256			
391	324	130	23	390			
395	196	133	12	186			
401	455	141	15	330			
Total	\$ 1,375	Total	66	\$ 1,162			
Cost Summary							
Direct Material Cost					\$	1,375	
Direct Labor Cost						1,162	
Applied Manufacturing Overhead							
Total Cost							

Geller applies overhead to jobs at a rate of \$15 per direct labor hour.

- How much overhead would be applied to Job #12478?
- What is the total cost of Job #12478?

- $\$990 = 66 \text{ hours} \times \$15$
- $\$3,527 = \$1,375 + \$1,162 + \$990$

Feedback: To apply manufacturing overhead, multiply the predetermined overhead rate by the actual value of the allocation base. The total cost of the job is direct materials plus direct labor plus applied manufacturing overhead.

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost

*sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*





*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

121. Koebel Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Koebel Corp estimated total manufacturing overhead cost at \$500,000 and total direct labor hours of 50,000. Koebel Corp started the year with no beginning balances in either Work in Process Inventory or Finished Goods Inventory. During the year actual manufacturing overhead incurred was \$512,500 and 49,000 direct labor hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

a.  $\$10 = \$500,000 / 50,000$

b.  $\$490,000 = 49,000 \times \$10$

c.  $\$22,500 \text{ underapplied} = \text{Actual } \$512,500 - \text{applied } \$490,000$

d. Cost of goods sold, increased

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Over- or

underapplied overhead = Actual - Applied Overhead. It is adjusted to cost of goods sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Record applied manufacturing overhead*

122. Cadburn Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Cadburn Corp estimated total manufacturing overhead cost at \$250,000 and total direct labor hours of 50,000. During the year actual manufacturing overhead incurred was \$262,500 and 51,000 direct labor hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

a.  $\$5 = \$250,000 / 50,000$

b.  $\$255,000 = 51,000 \times \$5$

c.  $\$7,500 \text{ underapplied} = \text{Actual } \$262,500 - \text{applied } \$255,000$

d. Cost of goods sold, increased

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Over- or

underapplied overhead = Actual - Applied Overhead. It is adjusted to cost of goods sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Record applied manufacturing overhead*

123. Chloe Corp uses a job order costing system with manufacturing overhead applied to products on the basis of direct labor hours. For the upcoming year, Chloe Corp estimated total manufacturing overhead cost at \$480,000 and total direct labor hours of 40,000. During the year actual manufacturing overhead incurred was \$462,500 and 41,000 direct labor hours were used.

- a. Calculate the predetermined overhead rate.
- b. Calculate how much manufacturing overhead will be applied to production.
- c. Is overhead over- or underapplied? By how much?
- d. What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

a.  $\$12 = \$480,000 / 40,000$

b.  $\$492,000 = 41,000 \times \$12$

c.  $\$29,500 \text{ over-applied} = \text{Actual } \$462,500 - \text{applied } \$492,000$

d. Cost of goods sold, decreased

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Over- or

underapplied overhead = Actual - Applied Overhead. It is adjusted to cost of goods sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Record applied manufacturing overhead*

124. Blueberry Corp uses a job order costing system with manufacturing overhead applied to products on the basis of machine hours. For the upcoming year, Blueberry Corp estimated total manufacturing overhead cost at \$270,000 and total machine hours of 45,000. During the year actual manufacturing overhead incurred was \$258,750 and 46,600 machine hours were used.
- Calculate the predetermined overhead rate.
  - Calculate how much manufacturing overhead will be applied to production.
  - Is overhead over- or underapplied? By how much?
  - What account should be adjusted for over- or underapplied overhead? Should the balance be increased or decreased?

a.  $\$6 = \$270,000 / 45,000$

b.  $\$279,600 = 46,600 \times \$6$

c.  $\$20,850 \text{ Over-applied} = \text{Actual } \$258,750 - \text{applied } \$279,600$

d. Cost of goods sold, decreased

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Over- or

underapplied overhead = Actual - Applied Overhead. It is adjusted to cost of goods sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Record applied manufacturing overhead*

125. Curtis Inc. uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$75,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$10,000	\$13,000
Work in Process Inventory	\$22,000	\$19,000
Finished Goods Inventory	\$34,000	\$41,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 91,000
Direct labor	\$145,000
Indirect materials used	\$ 6,000
Indirect labor	\$ 15,000
Factory equipment depreciation	\$ 24,000
Factory rent	\$ 18,000
Factory utilities	\$ 7,500
Other factory costs	\$ 6,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

a.  $50\% = \$75,000 / \$150,000$

b.	
Direct materials used	\$ 91,000
Direct labor	145,000
Overhead applied 50% x 145,000	72,500
Total manufacturing costs	308,500
+ beginning WIP	22,000
- ending WIP	19,000
Cost of goods manufactured	\$311,500
c.	
Indirect materials	\$6,000
Indirect labor	15,000
Factory equipment depreciation	24,000
Factory rent	18,000
Factory utilities	7,500
Other factory costs	6,500
Actual manufacturing overhead	\$ 77,000
Applied overhead	72,500
Under-applied overhead	\$ 4,500
d.	
Beginning finished goods	\$ 34,000
Cost of goods manufactured	311,500
Goods available for sale	\$345,500
- ending finished goods	41,000
Unadjusted Cost of goods sold	\$304,500
Under-applied overhead	4,500
Adjusted Cost of goods sold	\$309,000

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead. Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.



*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

126. Kayla Inc. uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$150,000 for the year; direct labor was estimated to total \$300,000.

	1/1	12/31
Raw Materials Inventory	\$20,000	\$26,000
Work in Process Inventory	\$44,000	\$38,000
Finished Goods Inventory	\$68,000	\$82,000

The following transactions have occurred during the year.

Raw materials purchases	\$200,000
Direct materials used	\$182,000
Direct labor	\$290,000
Indirect materials used	\$ 12,000
Indirect labor	\$ 30,000
Factory equipment depreciation	\$ 48,000
Factory rent	\$ 36,000
Factory utilities	\$ 15,000
Other factory costs	\$ 13,000

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

a.  $50\% = \$150,000 / \$300,000$

b.	
Direct materials used	\$182,000
Direct labor	290,000
Overhead applied 50% x 290,000	145,000
Total manufacturing costs	\$617,000
+ beginning WIP	44,000
- ending WIP	38,000
Cost of goods manufactured	\$623,000
c.	
Indirect materials	\$ 12,000
Indirect labor	30,000
Factory equipment depreciation	48,000
Factory rent	36,000
Factory utilities	15,000
Other factory costs	13,000
Actual manufacturing overhead	\$154,000
Applied overhead	145,000
Under-applied overhead	\$9,000
d.	
Beginning finished goods	\$ 68,000
Cost of goods manufactured	623,000
Goods available for sale	\$691,000
- ending finished goods	82,000
Unadjusted Cost of goods sold	\$609,000
Under-applied overhead	9,000
Adjusted Cost of goods sold	\$618,000

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead. Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

127. Cadbury Company uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$120,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$13,000	\$10,000
Work in Process Inventory	\$19,000	\$22,000
Finished Goods Inventory	\$41,000	\$32,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 91,000
Direct labor	\$125,000
Indirect materials used	\$ 12,000
Indirect labor	\$ 18,000
Factory equipment depreciation	\$ 28,000
Factory rent	\$ 22,000
Factory utilities	\$ 9,500
Other factory costs	\$ 8,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over- or underapplied overhead
- Calculate adjusted cost of goods sold

a.  $80\% = \$120,000 / \$150,000$

b.	
Direct materials used	\$ 91,000
Direct labor	125,000
Overhead applied 80% x 125,000	100,000
Total manufacturing costs	<u>\$316,000</u>
+ beginning WIP	19,000
- ending WIP	<u>22,000</u>
Cost of goods manufactured	\$313,000
c.	
Indirect materials	\$ 12,000
Indirect labor	18,000
Factory equipment depreciation	28,000
Factory rent	22,000
Factory utilities	9,500
Other factory costs	8,500
Actual manufacturing overhead	<u>\$ 98,000</u>
Applied overhead	100,000
Over-applied overhead	<u>\$2,000</u>
d.	
Beginning finished goods	\$ 41,000
Cost of goods manufactured	<u>313,000</u>
Goods available for sale	\$354,000
- ending finished goods	<u>32,000</u>
Unadjusted Cost of goods sold	\$322,000
Over-applied overhead	<u>(2,000)</u>
Adjusted Cost of goods sold	\$320,000

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead. Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.*

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

128. Ecola Company uses a job order costing system. Manufacturing overhead is applied on the basis of direct labor cost. Total manufacturing overhead was estimated to be \$120,000 for the year; direct labor was estimated to total \$150,000.

	1/1	12/31
Raw Materials Inventory	\$13,000	\$10,000
Work in Process Inventory	\$29,000	\$22,000
Finished Goods Inventory	\$41,000	\$32,000

The following transactions have occurred during the year.

Raw materials purchases	\$100,000
Direct materials used	\$ 87,000
Direct labor	\$135,000
Indirect materials used	\$ 16,000
Indirect labor	\$ 19,000
Factory equipment depreciation	\$ 28,000
Factory rent	\$ 15,000
Factory utilities	\$ 11,500
Other factory costs	\$ 8,500

- Calculate the predetermined overhead rate
- Calculate cost of goods manufactured
- Calculate the over or under-applied overhead
- Calculate adjusted cost of goods sold

a.  $80\% = \$120,000 / \$150,000$



b.	
Direct materials used	\$ 87,000
Direct labor	135,000
Overhead applied 80% x 135,000	108,000
Total manufacturing costs	\$330,000
+ beginning WIP	29,000
- ending WIP	22,000
Cost of goods manufactured	\$337,000
c.	
Indirect materials	\$ 16,000
Indirect labor	19,000
Factory equipment depreciation	28,000
Factory rent	15,000
Factory utilities	11,500
Other factory costs	8,500
Actual manufacturing overhead	\$ 98,000
Applied overhead	108,000
Over-applied overhead	\$ 10,000
d.	
Beginning finished goods	\$ 41,000
Cost of goods manufactured	337,000
Goods available for sale	\$378,000
- ending finished goods	32,000
Unadjusted Cost of goods sold	\$346,000
Over-applied overhead	-10,000
Adjusted Cost of goods sold	\$336,000

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Applied overhead = Predetermined overhead rate x Actual allocation base. Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead. Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

AACSB: Analytic

AICPA FN: Measurement

Blooms: Apply

Difficulty: 2 Medium

Learning Objective: 02-02 Describe the source documents used to track direct materials and direct labor costs to the job cost sheet.

*Learning Objective: 02-03 Calculate a predetermined overhead rate and use it to apply manufacturing overhead cost to jobs.*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Job cost sheet*

*Topic: Predetermined overhead rates*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record applied manufacturing overhead*

129. Josie Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$120,000.
- b. Issued \$115,000 in raw materials to production (\$22,000 were not traceable to specific jobs).
- c. Incurred \$115,000 in direct labor costs (14,375 hours) and \$62,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory lease \$24,000 (paid in cash); depreciation on equipment \$20,000; custodial supplies \$7,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$75,000; sales commissions \$88,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$10 per direct labor hour.
- g. Completed jobs costing a total of \$345,000.
- h. Sold jobs for \$425,000 on account. The cost of the jobs was \$342,000.
- i. Closed the Manufacturing Overhead account balance.

Prepare the journal entries to record these transactions.

a.	Raw Materials Inventory	\$120,000	
	Accounts Payable		\$120,000
b.	Work in Process Inventory	\$ 93,000	
	Manufacturing Overhead	\$ 22,000	
	Raw Materials Inventory		\$115,000
c.	Work in Process Inventory	\$115,000	
	Manufacturing Overhead	\$ 62,500	
	Cash		\$177,500
d.	Manufacturing Overhead	\$ 51,500	
	Accumulated Depreciation		\$ 20,000
	Cash		\$ 31,500
e.	Advertising Expense	\$ 75,000	
	Commissions Expense	\$ 88,000	
	Cash		\$163,000
f.	Work in Process Inventory	\$143,750	
	Manufacturing Overhead		\$143,750
g.	Finished Goods Inventory	\$345,000	
	Work in Process Inventory		\$345,000
h.	Accounts Receivable	\$425,000	
	Sales Revenue		\$425,000
	Cost of Goods Sold	\$342,000	
	Finished Goods Inventory		\$342,000
i.	Manufacturing Overhead	\$ 7,750	
	Cost of Goods Sold		\$ 7,750

Feedback: When materials are purchased, Raw Materials Inventory is debited. When materials are placed into production, Work in Process Inventory (for direct materials) or Manufacturing Overhead (for indirect materials) is debited, and Raw Materials credited. Labor costs are debited to Work in Process Inventory (direct) or Manufacturing Overhead (indirect). Actual manufacturing overhead costs are debited to Manufacturing Overhead. Nonmanufacturing costs are debited to an expense account. Applied manufacturing overhead is debited to Work in Process Inventory and credited to Manufacturing Overhead. The cost of completed jobs should be debited to Finished Goods Inventory and credited to Work in Process Inventory. The cost of sold jobs should be debited to Cost of Goods Sold and credited to Finished Goods Inventory. Under/overapplied overhead is credited/debited to Manufacturing Overhead, with the other side of the entry to Cost of Goods Sold.

AACSB: Analytic

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-S1 Prepare journal entries to record the flow of manufacturing and nonmanufacturing costs in a job order cost system.*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Journal entries for job order costing*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

130. Frontier Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$240,000.
- b. Issued \$230,000 in raw materials to production (\$32,000 were not traceable to specific jobs).
- c. Incurred \$242,000 in direct labor costs (24,120 hours) and \$92,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory utilities \$24,000 (paid in cash); depreciation on equipment \$45,000; indirect supplies \$17,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$75,000; sales salaries \$88,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$9 per direct labor hour.
- g. Completed jobs costing a total of \$644,000.
- h. Sold jobs for \$856,000 on account. The cost of the jobs was \$642,000.
- i. Closed the manufacturing overhead account balance.

Prepare the journal entries to record these transactions.

a.	Raw Materials Inventory	\$240,000	
	Accounts Payable		\$240,000
b.	Work in Process Inventory	\$198,000	
	Manufacturing Overhead	\$ 32,000	
	Raw Materials Inventory		\$230,000
c.	Work in Process Inventory	\$242,000	
	Manufacturing Overhead	\$ 92,500	
	Cash		\$334,500
d.	Manufacturing Overhead	\$ 86,500	
	Accumulated Depreciation		\$ 45,000
	Cash		\$ 41,500
e.	Advertising Expense	\$ 75,000	
	Sales Salary Expense	\$ 88,000	
	Cash		\$163,000
f.	Work in Process Inventory	\$217,080	
	Manufacturing Overhead		\$217,080
g.	Finished Goods Inventory	\$644,000	
	Work in Process Inventory		\$644,000
h.	Accounts Receivable	\$856,000	
	Sales Revenue		\$856,000
	Cost of Goods Sold	\$642,000	
	Finished Goods Inventory		\$642,000
i.	Manufacturing Overhead	\$ 6,080	
	Cost of Goods Sold		\$ 6,080

Feedback: When materials are purchased, Raw Materials Inventory is debited. When materials are placed into production, Work in Process Inventory (for direct materials) or Manufacturing Overhead (for indirect materials) is debited, and Raw Materials credited. Labor costs are debited to Work in Process Inventory (direct) or Manufacturing Overhead (indirect). Actual manufacturing overhead costs are debited to Manufacturing Overhead. Nonmanufacturing costs are debited to an expense account. Applied manufacturing overhead is debited to Work in Process Inventory and credited to Manufacturing Overhead. The cost of completed jobs should be debited to Finished Goods Inventory and credited to Work in Process Inventory. The cost of sold jobs should be debited to Cost of Goods Sold and credited to Finished Goods Inventory. Under/overapplied overhead is credited/debited to Manufacturing Overhead, with the other side of the entry to Cost of Goods Sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-S1 Prepare journal entries to record the flow of manufacturing and nonmanufacturing costs in a job order cost system.*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Journal entries for job order costing*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*



131. Northwest Inc. has provided the following information for 20x5:
- a. Purchased raw materials on account for \$150,000.
  - b. Issued \$130,000 in raw materials to production (\$34,000 were not traceable to specific jobs).
  - c. Incurred \$144,000 in direct labor costs (14,120 hours) and \$62,500 in supervision costs (paid in cash).
  - d. Incurred the following additional manufacturing overhead costs: factory lease \$36,000 (paid in cash); depreciation on equipment \$30,000; indirect supplies \$13,500 (paid in cash).
  - e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$45,000; sales commissions \$48,000.
  - f. Applied manufacturing overhead to jobs in process at a rate of \$13 per direct labor hour.
  - g. Completed jobs costing a total of \$415,000.
  - h. Sold jobs for \$625,000 on account. The cost of the jobs was \$412,000.
  - i. Closed the Manufacturing Overhead account balance.

Prepare the journal entries to record these transactions.

a.	Raw Materials Inventory	\$150,000	
	Accounts Payable		\$150,000
b.	Work in Process Inventory	\$ 96,000	
	Manufacturing Overhead	\$ 34,000	
	Raw Materials Inventory		\$130,000
c.	Work in Process Inventory	\$144,000	
	Manufacturing Overhead	\$ 62,500	
	Cash		\$206,500
d.	Manufacturing Overhead	\$ 79,500	
	Accumulated Depreciation		\$ 30,000
	Cash		\$ 49,500
e.	Advertising Expense	\$ 45,000	
	Commissions Expense	\$ 48,000	
	Cash		\$ 93,000
f.	Work in Process Inventory	\$183,560	
	Manufacturing Overhead		\$183,560
g.	Finished Goods Inventory	\$415,000	
	Work in Process Inventory		\$415,000
h.	Accounts Receivable	\$625,000	
	Sales Revenue		\$625,000
	Cost of Goods Sold	\$422,000	
	Finished Goods Inventory		\$422,000
i.	Manufacturing Overhead	\$ 7,560	
	Cost of Goods Sold		\$ 7,560

Feedback: When materials are purchased, Raw Materials Inventory is debited. When materials are placed into production, Work in Process Inventory (for direct materials) or Manufacturing Overhead (for indirect materials) is debited, and Raw Materials credited. Labor costs are debited to Work in Process Inventory (direct) or Manufacturing Overhead (indirect). Actual manufacturing overhead costs are debited to Manufacturing Overhead. Nonmanufacturing costs are debited to an expense account. Applied manufacturing overhead is debited to Work in Process Inventory and credited to Manufacturing Overhead. The cost of completed jobs should be debited to Finished Goods Inventory and credited to Work in Process Inventory. The cost of sold jobs should be debited to Cost of Goods Sold and credited to Finished Goods Inventory. Under/overapplied overhead is credited/debited to Manufacturing Overhead, with the other side of the entry to Cost of Goods Sold.

AACSB: Analytic

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-S1 Prepare journal entries to record the flow of manufacturing and nonmanufacturing costs in a job order cost system.*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Journal entries for job order costing*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

132. Shellenback Inc. has provided the following information for 20x5:

- a. Purchased raw materials on account for \$200,000.
- b. Issued \$185,000 in raw materials to production (\$12,000 were not traceable to specific jobs).
- c. Incurred \$155,000 in direct labor costs (14,750 hours), \$52,500 in supervision costs (paid in cash).
- d. Incurred the following additional manufacturing overhead costs: factory lease \$22,000 (paid in cash); depreciation on equipment \$26,000; factory utilities \$13,500 (paid in cash).
- e. Incurred the following nonmanufacturing costs, both paid in cash: advertising \$55,000; sales commissions \$58,000.
- f. Applied manufacturing overhead to jobs in process at a rate of \$9 per direct labor hour.
- g. Completed jobs costing a total of \$457,000.
- h. Sold jobs for \$735,000 on account. The cost of the jobs was \$441,000.
- i. Closed the manufacturing overhead account balance.

Prepare the journal entries to record these transactions.

a.	Raw Materials Inventory	\$200,000	
	Accounts Payable		\$200,000
b.	Work in Process Inventory	\$173,000	
	Manufacturing Overhead	\$ 12,000	
	Raw Materials Inventory		\$185,000
c.	Work in Process Inventory	\$155,000	
	Manufacturing Overhead	\$ 52,500	
	Cash		\$207,500
d.	Manufacturing Overhead	\$ 61,500	
	Accumulated Depreciation		\$ 26,000
	Cash		\$ 35,500
e.	Advertising Expense	\$ 55,000	
	Commissions Expense	\$ 58,000	
	Cash		\$113,000
f.	Work in Process Inventory	\$132,750	
	Manufacturing Overhead		\$132,750
g.	Finished Goods Inventory	\$457,000	
	Work in Process Inventory		\$457,000
h.	Accounts Receivable	\$735,000	
	Sales Revenue		\$735,000
	Cost of Goods Sold	\$441,000	
	Finished Goods Inventory		\$441,000
i.	Manufacturing Overhead	\$ 6,750	
	Cost of Goods Sold		\$ 6,750

Feedback: When materials are purchased, Raw Materials Inventory is debited. When materials are placed into production, Work in Process Inventory (for direct materials) or Manufacturing Overhead (for indirect materials) is debited, and Raw Materials credited. Labor costs are debited to Work in Process Inventory (direct) or Manufacturing Overhead (indirect). Actual manufacturing overhead costs are debited to Manufacturing Overhead. Nonmanufacturing costs are debited to an expense account. Applied manufacturing overhead is debited to Work in Process Inventory and credited to Manufacturing Overhead. The cost of completed jobs should be debited to Finished Goods Inventory and credited to Work in Process Inventory. The cost of sold jobs should be debited to Cost of Goods Sold and credited to Finished Goods Inventory. Under/overapplied overhead is credited/debited to Manufacturing Overhead, with the other side of the entry to Cost of Goods Sold.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-S1 Prepare journal entries to record the flow of manufacturing and nonmanufacturing costs in a job order cost system.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Journal entries for job order costing*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

133. Highview Corp. applies manufacturing overhead to production at 125% of direct labor cost. During 20x5, manufacturing overhead of \$100,000 was applied to production; actual manufacturing overhead was \$109,000. Beginning Work in Process Inventory was \$15,000 and beginning Finished Goods Inventory was \$35,000. Work in Process Inventory increased by 10% during the year and Finished Goods Inventory decreased by 20% during the year. Sales for 20x5 were \$450,000, yielding a \$130,000 gross profit. Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	
Unadjusted Cost of Goods Sold	
Overhead adjustment	
Adjusted Cost of Goods Sold	

Sales	\$450,000
Less: Cost of Goods Sold	<b><u>(320,000)</u></b>
Gross Profit	\$130,000

Use Cost of Goods Sold \$320,000 at the bottom of the following statement and work backwards to find direct materials used in production:

Direct materials used in production	\$125,500
Direct labor	80,000
Manufacturing overhead applied	100,000
Current manufacturing costs	305,500
Beginning Work in Process Inventory	15,000
Ending Work in Process Inventory	16,500
Cost of goods manufactured	304,000
Beginning Finished Goods Inventory	35,000
Ending Finished Goods Inventory	28,000
Unadjusted Cost of Goods Sold	311,000
Overhead adjustment	9,000
Adjusted Cost of Goods Sold	\$320,000

Feedback: Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead.  
Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*



134. Oscar Corp. applies manufacturing overhead to production at 150% of direct labor cost. During 20x5, manufacturing overhead of \$180,000 was applied to production; actual manufacturing overhead was \$199,000. Beginning Work in Process Inventory was \$20,000 and ending Work in Process Inventory was \$24,000. Beginning Finished Goods Inventory was \$42,000, ending Finished Goods Inventory was \$39,000. Sales for 20x5 were \$580,000, yielding a \$117,000 gross profit.

Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	_____
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	_____
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	_____
Unadjusted Cost of Goods Sold	
Overhead adjustment	_____
Adjusted Cost of Goods Sold	

Sales	\$580,000
Less: Cost of Goods Sold	<u>(463,000)</u>
Gross Profit	\$117,000

Use Cost of Goods Sold \$463,000 at the bottom of the following statement and work backwards to find direct materials used in production:

Direct materials used in production	\$145,000
Direct labor	120,000
Manufacturing overhead applied	180,000
Current manufacturing costs	<u>\$445,000</u>
Beginning Work in Process Inventory	20,000
Ending Work in Process Inventory	<u>24,000</u>
Cost of goods manufactured	<u>\$441,000</u>
Beginning Finished Goods Inventory	42,000
Ending Finished Goods Inventory	<u>39,000</u>
Unadjusted Cost of Goods Sold	<u>\$444,000</u>
Overhead adjustment	<u>19,000</u>
Adjusted Cost of Goods Sold	<u>\$463,000</u>

Feedback: Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead.  
Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured - Ending finished goods +/- Under/overapplied overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

135. Superior Corp. applies manufacturing overhead to production at 75% of direct labor cost. During 20x5, manufacturing overhead of \$150,000 was applied to production; actual manufacturing overhead was \$156,000. Ending Work in Process Inventory was \$22,000 and ending Finished Goods Inventory was \$36,000. Work in Process Inventory increased by 10% during the year and Finished Goods Inventory increased by 20% during the year. Unadjusted Cost of Goods Sold was \$575,000.
- Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	
Unadjusted Cost of Goods Sold	
Overhead adjustment	
Adjusted Cost of Goods Sold	

Use Unadjusted Cost of Goods Sold \$575,000 at the bottom of the following statement and work backwards to find direct materials used in production:

Direct materials used in production	\$233,000
Direct labor	200,000
Manufacturing overhead applied	150,000
Current manufacturing costs	\$583,000
Beginning Work in Process Inventory	20,000
Ending Work in Process Inventory	22,000
Cost of goods manufactured	\$581,000
Beginning Finished Goods Inventory	30,000
Ending Finished Goods Inventory	36,000
Unadjusted Cost of Goods Sold	<b>\$575,000</b>
Overhead adjustment	6,000
Adjusted Cost of Goods Sold	<b>\$581,000</b>

Feedback: Cost of goods manufactured = Direct materials + Direct labor + Applied overhead + Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead.

Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured -  
Ending finished goods +/- Under/overapplied overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

136. Christine Corp. applies manufacturing overhead to production at 80% of direct labor cost. During 20x5, manufacturing overhead of \$200,000 was applied to production; actual manufacturing overhead was \$189,000. Beginning Work in Process Inventory was \$25,000, and beginning Finished Goods Inventory was \$45,000. Work in Process Inventory decreased by 20% during the year and Finished Goods Inventory decreased by 10% during the year. Adjusted Cost of Goods Sold was \$623,500 for 20x5.

Complete the following schedule:

Direct materials used in production	
Direct labor	
Manufacturing overhead applied	
Current manufacturing costs	
Beginning Work in Process Inventory	
Ending Work in Process Inventory	
Cost of goods manufactured	
Beginning Finished Goods Inventory	
Ending Finished Goods Inventory	
Unadjusted Cost of Goods Sold	
Overhead adjustment	
Adjusted Cost of Goods Sold	

Use Adjusted Cost of Goods Sold \$623,500 at the bottom of the following statement and work backwards to find direct materials used in production:

Direct materials used in production	\$175,000
Direct labor	250,000
Manufacturing overhead applied	200,000
Current manufacturing costs	\$625,000
Beginning Work in Process Inventory	25,000
Ending Work in Process Inventory	20,000
Cost of goods manufactured	\$630,000
Beginning Finished Goods Inventory	45,000
Ending Finished Goods Inventory	40,500
Unadjusted Cost of Goods Sold	\$634,500
Overhead adjustment	(11,000)
Adjusted Cost of Goods Sold	\$623,500

Feedback: Cost of goods manufactured = Direct materials + Direct labor + Applied overhead +

Beginning WIP - Ending WIP. Over- or underapplied overhead = Actual - Applied overhead.  
Adjusted cost of goods sold = Beginning finished goods + cost of goods manufactured -  
Ending finished goods +/- Under/overapplied overhead.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Describe how costs flow through the accounting system in job order costing.*

*Learning Objective: 02-05 Calculate and dispose of overapplied or underapplied manufacturing overhead.*

*Learning Objective: 02-06 Calculate the cost of goods manufactured and cost of goods sold.*

*Topic: Calculate overapplied and underapplied manufacturing overhead*

*Topic: Dispose of overapplied or underapplied manufacturing*

*Topic: Prepare the cost of goods manufactured report*

*Topic: Record actual manufacturing overhead*

*Topic: Record applied manufacturing overhead*

*Topic: Record labor costs*

*Topic: Record the purchase and issue of materials*

137. Pinnacle Consulting employs two CPAs, each having a different area of specialization. Judy specializes in tax consulting and Steve specializes in management consulting. Pinnacle expects to incur total overhead costs of \$519,750 during the year and applies overhead based on annual salary costs. Judy is a senior partner, her annual salary is \$225,000, and she is expected to bill 2,000 hours during the year. Steve is a senior associate, his annual salary is \$121,500, and he is expected to bill 1,800 hours during the year.

- a. Calculate the predetermined overhead rate.
- b. Assuming that the hourly billing rate should be set to cover the total cost of services plus a 20% markup, compute the hourly billing rates for Judy and Steve.

a. Predetermined Overhead Rate:  $\$519,750 / (\$225,000 + \$121,500) = 150\%$  of Salary Cost  
b. Judy's billing rate = Annual Salary + Overhead (150% of Salary) =  $\$225,000 + \$337,500 = \$562,500 / 2,000 \text{ hours} = \$281.25 \text{ hourly cost}$ .  $\$281.25 \times 1.20 = \$337.50/\text{hour billing rate}$ .  
Steve's billing rate = Annual Salary + Overhead (150% of Salary) =  $\$121,500 + \$182,250 = \$303,750 / 1,800 \text{ hours} = \$168.75 \text{ hourly cost}$ .  $\$168.75 \times 1.20 = \$202.50/\text{hour billing rate}$ .

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.  
Hourly cost = (Annual salary + overhead)/estimated hours. Billing rate = hourly cost plus markup of 20%.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*

138. Ace Architects employs two architects, each having a different area of specialization. Caitlin specializes in industrial commercial construction and Zachary specializes in residential construction. Ace expects to incur total overhead costs of \$779,625 during the year and applies overhead based on annual salary costs. Caitlin is a senior partner, her annual salary is \$168,750, and she is expected to bill 2,000 hours during the year. Zachary is a senior associate, his annual salary is \$91,125, and he is expected to bill 1,800 hours during the year.

- a. Calculate the predetermined overhead rate.
- b. Assuming that the hourly billing rate should be set to cover the total cost of services plus a 20% markup, compute the hourly billing rates for Caitlin and Zachary.

- a. Predetermined Overhead Rate:  $\$779,625 / (\$168,750 + \$91,125) = 300\%$  of Salary Cost
- b. Caitlin's billing rate = Annual Salary + Overhead (300% of Salary) =  $\$168,750 + \$506,250 = \$675,000 / 2,000 \text{ hours} = \$337.50 \text{ hourly cost}$ .  $\$337.50 \times 1.20 = \$405/\text{hour billing rate}$ .  
Zachary's billing rate = Annual Salary + Overhead (300% of Salary) =  $\$91,125 + \$273,375 = \$364,500 / 1,800 \text{ hours} = \$202.50 \text{ hourly cost}$ .  $\$202.50 \times 1.20 = \$243/\text{hour billing rate}$ .

Feedback: Predetermined overhead rate = Estimated overhead/Estimated allocation base.

Hourly cost = (Annual salary + overhead)/estimated hours. Billing rate = hourly cost plus markup of 20%.

*AACSB: Analytic*

*AICPA FN: Measurement*

*Blooms: Apply*

*Difficulty: 2 Medium*

*Learning Objective: 02-07 Apply job order costing to a service setting.*

*Topic: Job order costing in a service firm*