

Chapter 02

Job-Order Costing

True / False Questions

1. The use of a predetermined overhead rate in a job-order cost system makes it possible to compute the total cost of a job before production is begun.

True False

2. If direct labor-hours is used as the allocation base in a job-order costing system, but overhead costs are not caused by direct-labor hours, then jobs with high direct labor requirements will tend to be undercosted relative to jobs with low direct labor requirements.

True False

3. The formula for computing the predetermined overhead rate is:
Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

True False

4. When the predetermined overhead rate is based on direct labor-hours, the amount of overhead applied to a job is proportional to the estimated amount of direct labor-hours for the job.

True False

5. The cost of a completed job in a job-order costing system typically consists of the actual direct materials cost of the job, the actual direct labor cost of the job, and the manufacturing overhead cost applied to the job.

True False

6. Job cost sheets are used to record the costs of preparing routine accounting reports.

True False

7. In a job-order cost system, direct labor is assigned to a job using information from the employee time ticket.

True False

8. The cost categories that appear on a job cost sheet include selling expense, manufacturing expense, and administrative expense.

True False

9. When completed goods are sold, the transaction is recorded as a debit to Cost of Goods Sold and a credit to Finished Goods.

True False

10. The following entry would be used to record depreciation on manufacturing equipment:

Work in Process	XXX	
Accumulated Depreciation		XXX

True False

11. The sum of all amounts transferred from the Work in Process account to the Finished Goods account represents the Cost of Goods Sold for the period.

True False

12. Indirect materials are charged to specific jobs.

True False

13. When a job is completed, the goods are transferred from the production department to the finished goods warehouse and the journal entry would include a debit to Work in Process.

True False

14. Manufacturing overhead is overapplied if actual manufacturing overhead costs for a period are greater than the amount of manufacturing overhead cost that was charged to Work in Process.

True False

15. If the actual manufacturing overhead cost for a period exceeds the manufacturing overhead cost applied, then manufacturing overhead would be considered to be underapplied.

True False

Multiple Choice Questions

16. Emco Company uses direct labor cost as a basis for computing its predetermined overhead rate. In computing the predetermined overhead rate for last year, the company misclassified a portion of direct labor cost as indirect labor. The effect of this misclassification will be to:

- A. understate the predetermined overhead rate.
- B. overstate the predetermined overhead rate.
- C. have no effect on the predetermined overhead rate.
- D. cannot be determined from the information given.

17. Departmental overhead rates are generally preferred to plant-wide overhead rates when:
- A. the activities of the various departments in the plant are not homogeneous.
 - B. the activities of the various departments in the plant are homogeneous.
 - C. most of the overhead costs are fixed.
 - D. all departments in the plant are heavily automated.
18. In computing its predetermined overhead rate, Brady Company included its factory insurance cost twice. This error will result in:
- A. the ending balance of Finished Goods to be understated.
 - B. the credits to the Manufacturing Overhead account to be understated.
 - C. the Cost of Goods Manufactured to be overstated.
 - D. the Net Operating Income to be overstated.
19. Which of the following entries would correctly record the application of overhead cost?

A.	Work in Process	XXX	
	Accounts Payable		XXX
B.	Manufacturing Overhead	XXX	
	Accounts Payable		XXX
C.	Manufacturing Overhead	XXX	
	Work in Process		XXX
D.	Work in Process	XXX	
	Manufacturing Overhead		XXX

20. What journal entry is made in a job-order costing system when \$8,000 of materials are requisitioned for general factory use instead of for use in a particular job?

A.	Work in Process	\$8,000	
	Manufacturing Overhead		\$8,000
B.	Work in Process	\$8,000	
	Raw Materials		\$8,000
C.	Manufacturing Overhead	\$8,000	
	Work in Process		\$8,000
D.	Manufacturing Overhead	\$8,000	
	Raw Materials		\$8,000

21. A proper journal entry to record issuing raw materials to be used on a job would be:

A.	Finished Goods	XXX	
	Raw Materials		XXX
B.	Raw Materials	XXX	
	Work in Process		XXX
C.	Work in Process	XXX	
	Raw Materials		XXX
D.	Raw Materials	XXX	
	Finished Goods		XXX

22. Which of the following entries would record correctly the monthly salaries earned by the top management of a manufacturing company?

A.	Manufacturing Overhead	XXX	
	Salaries and Wages Payable		XXX
B.	Salaries Expense	XXX	
	Salaries and Wages Payable		XXX
C.	Work in Process	XXX	
	Salaries and Wages Payable		XXX
D.	Salaries and Wages Payable	XXX	
	Salaries Expense		XXX

23. In a job-order costing system, the use of indirect materials that have been previously purchased is recorded as a credit to:

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

24. On the Schedule of Cost of Goods Manufactured, the final Cost of Goods Manufactured figure represents:

- A. the amount of cost charged to Work in Process during the period.
- B. the amount of cost transferred from Finished Goods to Cost of Goods Sold during the period.
- C. the amount of cost placed into production during the period.
- D. the amount of cost of goods completed during the current year whether they were started before or during the current year.

25. Overapplied manufacturing overhead means that:

- A. the applied manufacturing overhead cost was less than the actual manufacturing overhead cost.
- B. the applied manufacturing overhead cost was greater than the actual manufacturing overhead cost.
- C. the estimated manufacturing overhead cost was less than the actual manufacturing overhead cost.
- D. the estimated manufacturing overhead cost was less than the applied manufacturing overhead cost.

26. Buker Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	74,000	
Estimated variable manufacturing overhead	\$7.67	per machine-hour
Estimated variable manufacturing overhead	\$1,630,960	

The predetermined overhead rate for the recently completed year was closest to:

- A. \$22.04
- B. \$29.59
- C. \$7.67
- D. \$29.71

27. Hibshman Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 10,000 machine-hours. The estimated variable manufacturing overhead was \$6.82 per machine-hour and the estimated total fixed manufacturing overhead was \$230,200. The predetermined overhead rate for the recently completed year was closest to:
- A. \$29.84 per machine-hour
 - B. \$23.15 per machine-hour
 - C. \$23.02 per machine-hour
 - D. \$6.82 per machine-hour

28. CR Corporation has the following estimated costs for the next year:

Direct materials	\$4,000
Direct labor	\$20,000
Rent on factory building	\$15,000
Sales salaries	\$25,000
Depreciation on factory equipment	\$8,000
Indirect labor	\$10,000
Production supervisor's salary	\$12,000

CR Corporation estimates that 20,000 labor-hours will be worked during the year. If overhead is applied on the basis of direct labor-hours, the overhead rate per hour will be:

- A. \$2.25
- B. \$3.25
- C. \$3.45
- D. \$4.70

29. Jameson Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for the next year:

Direct materials	\$5,000
Direct labor	\$19,000
Rent on factory building	\$16,000
Sales salaries	\$24,000
Depreciation on factory equipment	\$7,000
Indirect labor	\$11,000
Production supervisor's salary	\$14,000

Jameson estimates that 24,000 direct labor-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A. \$2.00
- B. \$2.79
- C. \$3.00
- D. \$4.00

30. Paulson Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for next year:

Direct materials	\$25,000
Direct labor	\$22,000
Advertising expense	\$15,000
Rent on factory building	\$13,500
Depreciation on factory equipment	\$6,500
Indirect materials	\$10,000
Sales salaries	\$28,000
Insurance on factory equipment	\$12,000

Paulson estimated that 40,000 direct labor-hours and 20,000 machine-hours would be worked during the year. The predetermined overhead rate per machine-hour will be:

- A. \$1.60
- B. \$2.10
- C. \$1.00
- D. \$1.05

31. Aksamit Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:		
Estimated machine-hours	62,000	
Estimated variable manufacturing overhead	\$7.03	per machine-hour
Estimated total fixed manufacturing overhead	\$1,486,140	
Actual machine-hours for the year	61,100	

The predetermined overhead rate for the recently completed year was closest to:

- A. \$23.97
 - B. \$31.00
 - C. \$7.03
 - D. \$31.35
32. Sirmons Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 70,000 labor-hours. The estimated variable manufacturing overhead was \$9.93 per labor-hour and the estimated total fixed manufacturing overhead was \$1,649,200. The actual labor-hours for the year turned out to be 74,000 labor-hours. The predetermined overhead rate for the recently completed year was closest to:
- A. \$32.22
 - B. \$9.93
 - C. \$33.49
 - D. \$23.56

33. The Work in Process inventory account of a manufacturing Corporation shows a balance of \$18,000 at the end of an accounting period. The job cost sheets of the two uncompleted jobs show charges of \$6,000 and \$3,000 for materials, and charges of \$4,000 and \$2,000 for direct labor. From this information, it appears that the Corporation is using a predetermined overhead rate, as a percentage of direct labor costs, of:
- A. 50%
 - B. 200%
 - C. 300%
 - D. 20%

34. The following T-accounts have been constructed from last year's records at C&C Manufacturing:

Raw Materials			
Bal	10,000	(b)	252,000
(a)	247,000		
	5,000		

Work In Process			
Bal	6,000	(f)	506,000
(b)	161,000		
(c)	154,000		
(e)	192,500		
	7,500		

Finished Goods			
Bal	0	(g)	500,000
(f)	506,000		
	6,000		

Manufacturing Overhead			
(b)	91,000	(e)	192,500
(c)	26,000		
(d)	78,000		
	195,000		192,500
	2,500	(h)	2,500

Cost of Goods Sold			
(g)	500,000		
(h)	2,500		

C&C Manufacturing uses job-order costing with a predetermined overhead rate and applies manufacturing overhead to jobs based on direct labor costs. What is the predetermined overhead rate?

- A. 125%
- B. 120%
- C. 100%
- D. 105%

35. Bradbeer Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the estimated direct labor-hours were 17,500 hours. At the end of the year, actual direct labor-hours for the year were 16,000 hours, the actual manufacturing overhead for the year was \$233,000, and manufacturing overhead for the year was underapplied by \$15,400. The estimated manufacturing overhead at the beginning of the year used in the predetermined overhead rate must have been:

- A. \$249,375
- B. \$217,600
- C. \$228,000
- D. \$238,000

36. Dagger Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the total estimated manufacturing overhead was \$423,870. At the end of the year, actual direct labor-hours for the year were 19,400 hours, manufacturing overhead for the year was underapplied by \$5,650, and the actual manufacturing overhead was \$418,870. The predetermined overhead rate for the year must have been closest to:
- A. \$21.59
 - B. \$20.76
 - C. \$21.30
 - D. \$21.85
37. Sawyer Manufacturing Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. Last year, the Corporation worked 57,000 actual direct labor-hours and incurred \$345,000 of actual manufacturing overhead cost. The Corporation had estimated that it would work 55,000 direct labor-hours during the year and incur \$330,000 of manufacturing overhead cost. The Corporation's manufacturing overhead cost for the year was:
- A. overapplied by \$15,000
 - B. underapplied by \$15,000
 - C. overapplied by \$3,000
 - D. underapplied by \$3,000
38. Clear Colors Corporation uses a predetermined overhead rate based on direct labor costs to apply manufacturing overhead to jobs. At the beginning of the year the Corporation estimated its total manufacturing overhead cost at \$350,000 and its direct labor costs at \$200,000. The actual overhead cost incurred during the year was \$362,000 and the actual direct labor costs incurred on jobs during the year was \$208,000. The manufacturing overhead for the year would be:
- A. \$12,000 underapplied.
 - B. \$12,000 overapplied.
 - C. \$2,000 underapplied.
 - D. \$2,000 overapplied.

39. Cribb Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the estimated direct labor-hours were 17,900 hours and the total estimated manufacturing overhead was \$341,890. At the end of the year, actual direct labor-hours for the year were 16,700 hours and the actual manufacturing overhead for the year was \$336,890.

Overhead at the end of the year was:

- A. \$22,920 underapplied
- B. \$17,920 overapplied
- C. \$17,920 underapplied
- D. \$22,920 overapplied

40. Brusveen Corporation applies manufacturing overhead to jobs on the basis of direct labor-hours. The following information relates to Brusveen for last year:

	Estimated	Actual
Direct labor-hours	15,000	14,800
Manufacturing overhead cost	\$300,000	\$287,120

What was Brusveen's underapplied or overapplied overhead for last year?

- A. \$4,000 underapplied
- B. \$8,880 underapplied
- C. \$8,880 overapplied
- D. \$9,000 underapplied

41. Collins Corporation uses a predetermined overhead rate based on direct labor cost to apply manufacturing overhead to jobs. The following information applies to the Corporation for the current year:

Direct labor-hours:	
Estimated for the year	24,000
Actual hours worked	19,500
Direct labor cost:	
Estimated for the year	\$300,000
Actual cost incurred	\$210,000
Manufacturing overhead:	
Estimated for the year	\$240,000
Actual cost incurred	\$185,000

The manufacturing overhead cost for the current year will be:

- A. \$17,000 overapplied
 - B. \$17,000 underapplied
 - C. \$55,000 overapplied
 - D. \$55,000 underapplied
42. At the beginning of the year, manufacturing overhead for the year was estimated to be \$477,590. At the end of the year, actual direct labor-hours for the year were 29,000 hours, the actual manufacturing overhead for the year was \$472,590, and manufacturing overhead for the year was overapplied by \$110. If the predetermined overhead rate is based on direct labor-hours, then the estimated direct labor-hours at the beginning of the year used in the predetermined overhead rate must have been:
- A. 29,300 direct labor-hours
 - B. 28,987 direct labor-hours
 - C. 28,993 direct labor-hours
 - D. 29,000 direct labor-hours

43. Galbraith Corporation applies overhead cost to jobs on the basis of 70% of direct labor cost. If Job 201 shows \$28,000 of manufacturing overhead applied, the direct labor cost on the job was:

- A. \$40,000
- B. \$19,600
- C. \$28,000
- D. \$36,400

44. Job 593 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$3,190	
Direct labor-hours	71	labor-hours
Direct labor wage rate	\$15	per labor-hour
Machine-hours	175	machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$14 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 593 would be:

- A. \$6,705
- B. \$3,219
- C. \$5,249
- D. \$4,255

45. The following data have been recorded for recently completed Job 323 on its job cost sheet. Direct materials cost was \$2,260. A total of 37 direct labor-hours and 141 machine-hours were worked on the job. The direct labor wage rate is \$13 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$14 per machine-hour. The total cost for the job on its job cost sheet would be:
- A. \$3,259
 - B. \$2,741
 - C. \$4,715
 - D. \$2,287

46. Spectrum Manufacturing had the following information in its records at the end of the year:

Predetermined overhead rate	125% of direct labor costs
Estimated direct labor costs	\$87,500
Actual direct labor costs	\$84,000

Manufacturing Overhead	
11,000	
13,000	
78,000	

What was the balance in Manufacturing Overhead, and when closed what will the effect be on gross margin?

- A. \$3,000 underapplied, and increase
- B. \$3,000 overapplied, and increase
- C. \$3,000 underapplied, and decrease
- D. \$3,000 overapplied, and decrease

47. Parsons Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. Last year, Parsons Corporation incurred \$250,000 in actual manufacturing overhead cost. The Manufacturing Overhead account showed that overhead was overapplied \$12,000 for the year. If the predetermined overhead rate was \$8.00 per direct labor-hour, how many hours did the Corporation work during the year?
- A. 31,250 hours
 - B. 30,250 hours
 - C. 32,750 hours
 - D. 29,750 hours
48. During October, Dorinirl Corporation incurred \$60,000 of direct labor costs and \$5,000 of indirect labor costs. The journal entry to record the accrual of these wages would include a:
- A. credit to Work in Process of \$60,000
 - B. credit to Work in Process of \$65,000
 - C. debit to Work in Process of \$65,000
 - D. debit to Work in Process of \$60,000
49. Soledad Corporation had \$36,000 of raw materials on hand on December 1. During the month, the Corporation purchased an additional \$71,000 of raw materials. The journal entry to record the purchase of raw materials would include a:
- A. credit to Raw Materials of \$71,000
 - B. debit to Raw Materials of \$71,000
 - C. credit to Raw Materials of \$107,000
 - D. debit to Raw Materials of \$107,000

50. At the beginning of December, Sneed Corporation had \$32,000 of raw materials on hand. During the month, the Corporation purchased an additional \$71,000 of raw materials. During December, \$75,000 of raw materials were requisitioned from the storeroom for use in production. The credits entered in the Raw Materials account during the month of December total:

- A. \$32,000
- B. \$75,000
- C. \$71,000
- D. \$103,000

51. On February 1, Manwill Corporation had \$24,000 of raw materials on hand. During the month, the Corporation purchased an additional \$60,000 of raw materials. During February, \$54,000 of raw materials were requisitioned from the storeroom for use in production. The debits entered in the Raw Materials account during the month of February total:

- A. \$84,000
- B. \$54,000
- C. \$60,000
- D. \$24,000

52. Donham Corporation had \$25,000 of raw materials on hand on May 1. During the month, the Corporation purchased an additional \$65,000 of raw materials. During May, \$66,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$4,000. The debits to the Work in Process account as a consequence of the raw materials transactions in May total:

- A. \$0
- B. \$62,000
- C. \$65,000
- D. \$66,000

53. During February at Iniquez Corporation, \$79,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$4,000. The journal entry to record the requisition from the storeroom would include a:
- A. debit to Work in Process of \$79,000
 - B. debit to Work in Process of \$75,000
 - C. credit to Manufacturing Overhead of \$4,000
 - D. debit to Raw Materials of \$79,000
54. Epolito Corporation incurred \$87,000 of actual Manufacturing Overhead costs during September. During the same period, the Manufacturing Overhead applied to Work in Process was \$89,000. The journal entry to record the incurrence of the actual Manufacturing Overhead costs would include a:
- A. debit to Work in Process of \$89,000
 - B. credit to Manufacturing Overhead of \$87,000
 - C. debit to Manufacturing Overhead of \$87,000
 - D. credit to Work in Process of \$89,000
55. Traves Corporation incurred \$69,000 of actual Manufacturing Overhead costs during October. During the same period, the Manufacturing Overhead applied to Work in Process was \$68,000. The journal entry to record the application of Manufacturing Overhead to Work in Process would include a:
- A. debit to Manufacturing Overhead of \$68,000
 - B. credit to Manufacturing Overhead of \$68,000
 - C. debit to Work in Process of \$69,000
 - D. credit to Work in Process of \$69,000

56. During October, Beidleman Inc. transferred \$52,000 from Work in Process to Finished Goods and recorded a Cost of Goods Sold of \$55,000. The journal entries to record these transactions would include a:

- A. credit to Cost of Goods Sold of \$55,000
- B. credit to Work in Process of \$52,000
- C. debit to Finished Goods of \$55,000
- D. credit to Finished Goods of \$52,000

57. In July, Essinger Inc. incurred \$72,000 of direct labor costs and \$3,000 of indirect labor costs. The journal entry to record the accrual of these wages would include a:

- A. debit to Manufacturing Overhead of \$3,000
- B. credit to Manufacturing Overhead of \$3,000
- C. credit to Work in Process of \$75,000
- D. debit to Work in Process of \$75,000

58. During May at Shatswell Corporation, \$57,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$7,000. The journal entry to record this requisition would include a debit to Manufacturing Overhead of:

- A. \$57,000
- B. \$7,000
- C. \$0
- D. \$50,000

59. Which of the following entries or sets of entries would record sales for the month of July of \$200,000 for goods costing \$119,000 for?

A.

Accounts Receivable	200,000	
Sales		200,000

B.

Accounts Receivable	200,000	
Sales		200,000
Cost of Goods Sold	119,000	
Work in Process		119,000

C.

Cost of Goods Sold	119,000	
Net Income	81,000	
Sales		200,000

D.

Accounts Receivable	200,000	
Sales		200,000
Cost of Goods Sold	119,000	
Finished Goods		119,000

60. Bretthauer Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of July. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$51,000 and the total of the credits to the account was \$64,000. Which of the following statements is true?
- A. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$51,000.
 - B. Manufacturing overhead applied to Work in Process for the month was \$64,000.
 - C. Manufacturing overhead for the month was underapplied by \$13,000.
 - D. Actual manufacturing overhead incurred during the month was \$64,000.
61. Arvay Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of October. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$62,000 and the total of the credits to the account was \$52,000. Which of the following statements is true?
- A. Actual manufacturing overhead incurred during the month was \$52,000.
 - B. Manufacturing overhead applied to Work in Process for the month was \$62,000.
 - C. Manufacturing overhead for the month was underapplied by \$10,000.
 - D. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$62,000.

62. Kaleohano Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of July. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$62,000 and the total of the credits to the account was \$73,000. Which of the following statements is true?

- A. Manufacturing overhead for the month was underapplied by \$11,000.
- B. Manufacturing overhead applied to Work in Process for the month was \$62,000.
- C. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$73,000.
- D. Actual manufacturing overhead for the month was \$62,000.

63. The following accounts are from last year's books of Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	6,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
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(g)	226,000	(h)	3,000
	223,000		

Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the amount of direct materials used for the year?

- A. \$93,000
- B. \$69,000
- C. \$87,000
- D. \$82,000

64. The following accounts are from last year's books at Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	5,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
(g)	226,000	(h)	3,000

	223,000		
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Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the amount of cost of goods manufactured for the year?

- A. \$255,000
- B. \$251,000
- C. \$223,000
- D. \$226,000

65. Compute the amount of raw materials used during August if \$25,000 of raw materials were purchased during the month and the inventories were as follows:

	Balance	Balance
Inventories	August 1	August 31
Raw Materials	\$5,000	\$3,000
Work in process	\$13,000	\$16,000
Finished goods	\$25,000	\$27,000

- A. \$16,000
- B. \$19,000
- C. \$23,000
- D. \$27,000

66. The following accounts are from last year's books at Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	5,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
(g)	226,000	(h)	3,000
	223,000		

Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the manufacturing overapplied or underapplied for the year?

- A. \$12,000 overapplied
- B. \$12,000 underapplied
- C. \$3,000 overapplied
- D. \$3,000 underapplied

67. Cerrone Inc. has provided the following data for the month of July. The balance in the Finished Goods inventory account at the beginning of the month was \$39,000 and at the end of the month was \$47,000. The cost of goods manufactured for the month was \$188,000. The actual manufacturing overhead cost incurred was \$71,000 and the manufacturing overhead cost applied to Work in Process was \$67,000. The adjusted cost of goods sold that would appear on the income statement for July is:

- A. \$196,000
- B. \$184,000
- C. \$180,000
- D. \$188,000

68. Hudek Inc., a manufacturing Corporation, has provided the following data for the month of July. The balance in the Work in Process inventory account was \$20,000 at the beginning of the month and \$10,000 at the end of the month. During the month, the Corporation incurred direct materials cost of \$50,000 and direct labor cost of \$22,000. The actual manufacturing overhead cost incurred was \$58,000. The manufacturing overhead cost applied to Work in Process was \$56,000. The cost of goods manufactured for July was:

- A. \$138,000
- B. \$140,000
- C. \$130,000
- D. \$128,000

69. Stelmack Corporation, a manufacturing Corporation, has provided data concerning its operations for September. The beginning balance in the raw materials account was \$20,000 and the ending balance was \$27,000. Raw materials purchases during the month totaled \$63,000. Manufacturing overhead cost incurred during the month was \$53,000, of which \$3,000 consisted of raw materials classified as indirect materials. The direct materials cost for September was:
- A. \$56,000
 - B. \$53,000
 - C. \$70,000
 - D. \$63,000
70. Smallwood Corporation has provided the following data concerning manufacturing overhead for January:

Actual manufacturing overhead incurred	\$64,000
Manufacturing overhead applied to Work in Process	\$59,000

The Corporation's Cost of Goods Sold was \$223,000 prior to closing out its Manufacturing Overhead account. The Corporation closes out its Manufacturing Overhead account to Cost of Goods Sold. Which of the following statements is true?

- A. Manufacturing overhead for the month was overapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$228,000
- B. Manufacturing overhead for the month was underapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$218,000
- C. Manufacturing overhead for the month was underapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$228,000
- D. Manufacturing overhead for the month was overapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$218,000

71. Longstaff Inc. has provided the following data for the month of March. There were no beginning inventories; consequently, the direct materials, direct labor, and manufacturing overhead applied listed below are all for the current month.

	Work In Process	Finished Goods	Cost of Goods Sold	Total
Direct materials	\$4,290	\$12,480	\$31,200	\$47,970
Direct labor	5,260	17,160	42,900	65,320
Manufacturing overhead applied	<u>4,100</u>	<u>10,660</u>	<u>26,240</u>	<u>41,000</u>
Total	<u>\$13,650</u>	<u>\$40,300</u>	<u>\$100,340</u>	<u>\$154,290</u>

Manufacturing overhead for the month was overapplied by \$5,000.

The Corporation allocates any underapplied or overapplied manufacturing overhead among work in process, finished goods, and cost of goods sold at the end of the month on the basis of the manufacturing overhead applied during the month in those accounts.

The journal entry to record the allocation of any underapplied or overapplied manufacturing overhead for March would include the following:

- A. debit to Work in Process of \$13,650
- B. debit to Work in Process of \$500
- C. credit to Work in Process of \$13,650
- D. credit to Work in Process of \$500

72. The actual manufacturing overhead incurred at Frazee Corporation during November was \$79,000, while the manufacturing overhead applied to Work in Process was \$65,000. The Corporation's Cost of Goods Sold was \$385,000 prior to closing out its Manufacturing Overhead account. The Corporation closes out its Manufacturing Overhead account to Cost of Goods Sold. Which of the following statements is true?
- A. Manufacturing overhead for the month was underapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$399,000
 - B. Manufacturing overhead for the month was overapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$371,000
 - C. Manufacturing overhead for the month was overapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$399,000
 - D. Manufacturing overhead for the month was underapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$371,000
73. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The predetermined overhead rate was based on how many estimated machine-hours?

- A. 5,783
- B. 6,000
- C. 5,900
- D. 5,842

74. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The applied manufacturing overhead for the year was closest to:

- A. \$58,017
- B. \$59,590
- C. \$60,600
- D. \$58,597

75. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The overhead for the year was:

- A. \$1,010 underapplied
- B. \$590 overapplied
- C. \$590 underapplied
- D. \$1,010 overapplied

76. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The predetermined overhead rate for the year was closest to:

- A. \$34.95
- B. \$34.83
- C. \$34.98
- D. \$35.10

77. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The applied manufacturing overhead for the year was closest to:

- A. \$208,283
- B. \$209,001
- C. \$209,898
- D. \$209,180

78. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The overhead for the year was:

- A. \$702 underapplied
- B. \$898 underapplied
- C. \$702 overapplied
- D. \$898 overapplied

79. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The predetermined overhead rate is closest to:

- A. \$36.60
- B. \$36.41
- C. \$36.24
- D. \$36.05

80. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The applied manufacturing overhead for the year is closest to:

- A. \$136,269
- B. \$138,348
- C. \$136,987
- D. \$137,630

81. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The overhead for the year was:

- A. \$732 underapplied
- B. \$1,348 underapplied
- C. \$732 overapplied
- D. \$1,348 overapplied

82. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The raw materials purchased during November totaled:

- A. \$42,000
- B. \$45,000
- C. \$36,000
- D. \$39,000

83. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The direct materials cost in the November 1 Work in Process inventory account totaled:

- A. \$6,600
- B. \$6,000
- C. \$3,600
- D. \$3,000

84. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The actual direct labor-hours worked during November totaled:

- A. 2,800 hours
- B. 3,300 hours
- C. 3,500 hours
- D. 3,600 hours

85. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The amount of direct labor cost in the November 30 Work in Process inventory was:

- A. \$2,800
- B. \$3,300
- C. \$3,500
- D. \$6,300

86. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The balance in the Work in Process inventory account on May 1 was:

- A. \$0
- B. \$6,700
- C. \$4,500
- D. \$8,500

87. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The debit to Work in Process for the cost of direct materials used during May was:

- A. \$63,000
- B. \$61,000
- C. \$57,000
- D. \$67,000

88. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The debit to Work in Process for direct labor cost during May was:

- A. \$21,000
- B. \$26,100
- C. \$28,800
- D. \$31,500

89. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

If overhead was underapplied by \$2,500 during May, the actual overhead cost for the month must have been:

- A. \$16,700
- B. \$21,700
- C. \$18,500
- D. \$23,500

90. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

The direct materials used in production during the year totaled:

- A. \$180,000
- B. \$240,000
- C. \$130,000
- D. \$120,000

91. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

If the actual manufacturing overhead cost for the year totaled \$145,000, then overhead was:

- A. overapplied by \$25,000
- B. overapplied by \$10,000
- C. underapplied by \$25,000
- D. underapplied by \$10,000

92. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

The Corporation's ending work in process inventory consisted of one job, Job 42. The job had been charged with \$28,000 of direct labor cost, which consisted of 2,000 actual labor-hours. The direct materials cost in Job 42 totaled:

- A. \$33,000
- B. \$42,000
- C. \$17,000
- D. \$30,000

93. On March 1, Metevier Corporation had \$37,000 of raw materials on hand. During the month, the company purchased an additional \$62,000 of raw materials. During March, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000.

The journal entry to record the purchase of raw materials would include a:

- A. credit to Raw Materials of \$62,000
- B. credit to Raw Materials of \$99,000
- C. debit to Raw Materials of \$99,000
- D. debit to Raw Materials of \$62,000

94. On March 1, Metevier Corporation had \$37,000 of raw materials on hand. During the month, the company purchased an additional \$62,000 of raw materials. During March, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000.

The journal entry to record the requisition from the storeroom would include a:

- A. debit to Work in Process of \$69,000
- B. debit to Work in Process of \$63,000
- C. debit to Raw Materials of \$69,000
- D. credit to Manufacturing Overhead of \$6,000

95. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the workers who carve the wood for the instruments have earned their pay?

- A. Direct Labor
- B. Work in Process
- C. Manufacturing Overhead
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

96. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the production manager has earned her salary?

- A. Direct Labor
- B. Work in Process
- C. Manufacturing Overhead
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

97. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the president of the company has earned her salary?

- A. Direct Labor
- B. Work in Process
- C. Manufacturing Overhead
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

98. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What is one of the accounts that Chelm should credit when goods are sold?

- A. Finished Goods
- B. Work in Process
- C. Cost of Goods Sold
- D. Manufacturing Overhead
- E. Cost of Goods Manufactured

99. During February, Irving Corporation incurred \$65,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$60,000.

The journal entry to record the incurrence of the actual Manufacturing Overhead costs would include a:

- A. debit to Manufacturing Overhead of \$65,000
- B. credit to Manufacturing Overhead of \$65,000
- C. credit to Work in Process of \$60,000
- D. debit to Work in Process of \$60,000

100. During February, Irving Corporation incurred \$65,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$60,000.

The journal entry to record the application of Manufacturing Overhead to Work in Process would include a:

- A. debit to Work in Process of \$65,000
- B. credit to Work in Process of \$65,000
- C. credit to Manufacturing Overhead of \$60,000
- D. debit to Manufacturing Overhead of \$60,000

101. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits entered in the Raw Materials account during the month of August total:

- A. \$91,000
- B. \$69,000
- C. \$35,000
- D. \$56,000

102. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Raw Materials account for the month of August total:

- A. \$35,000
- B. \$91,000
- C. \$56,000
- D. \$69,000

103. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits to the Work in Process account as a consequence of the raw materials transactions in August total:

- A. \$56,000
- B. \$0
- C. \$63,000
- D. \$69,000

104. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Work in Process account as a consequence of the raw materials transactions in August total:

- A. \$56,000
- B. \$63,000
- C. \$0
- D. \$69,000

105. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits to the Manufacturing Overhead account as a consequence of the raw materials transactions in August total:

- A. \$6,000
- B. \$69,000
- C. \$0
- D. \$63,000

106. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Manufacturing Overhead account as a consequence of the raw materials transactions in August total:

- A. \$0
- B. \$63,000
- C. \$69,000
- D. \$6,000

107. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The balance on May 1 in the Raw Materials inventory account was:

- A. \$11,000
- B. \$5,000
- C. \$7,000
- D. \$9,000

108. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The amount of direct materials cost in the May 31 Work in Process inventory account was:

- A. \$7,600
- B. \$2,000
- C. \$6,300
- D. \$4,300

109. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The entry to dispose of the under or overapplied manufacturing overhead cost for the month would include:

- A. a debit of \$2,000 to the Manufacturing Overhead account.
- B. a credit of \$2,500 to the Manufacturing Overhead account.
- C. a debit of \$2,000 to Cost of Goods Sold.
- D. a credit of \$2,500 to Cost of Goods Sold.

110. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The Cost of Goods Manufactured for May was:

- A. \$84,500
- B. \$95,000
- C. \$75,500
- D. \$81,500

111. Echo Corporation uses a job-order costing system and applies overhead to jobs using a predetermined overhead rate. During the year the company's Finished Goods inventory account was debited for \$360,000 and credited for \$338,800. The ending balance in the Finished Goods inventory account was \$36,600. At the end of the year, manufacturing overhead was overapplied by \$15,900.

The balance in the Finished Goods inventory account at the beginning of the year was:

- A. \$15,900
- B. \$15,400
- C. \$21,200
- D. \$36,600

112. Echo Corporation uses a job-order costing system and applies overhead to jobs using a predetermined overhead rate. During the year the company's Finished Goods inventory account was debited for \$360,000 and credited for \$338,800. The ending balance in the Finished Goods inventory account was \$36,600. At the end of the year, manufacturing overhead was overapplied by \$15,900.

If the applied manufacturing overhead was \$169,300, the actual manufacturing overhead cost for the year was:

- A. \$168,800
- B. \$153,400
- C. \$190,000
- D. \$185,200

113. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
22,900			

The Cost of Goods Manufactured was:

- A. \$22,900
- B. \$26,300
- C. \$6,400
- D. \$49,200

114. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
22,900			

The direct labor cost was:

- A. \$8,000
- B. \$12,300
- C. \$12,600
- D. \$11,000

115. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
	22,900		

The direct materials cost was:

A. \$8,000

- B. \$10,000
- C. \$7,400
- D. \$4,600

116. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials		
Beg Bal	4,700	10,000
	6,900	

Work in Process		
Beg Bal	4,600	26,300
	7,400	
	8,000	
	6,800	

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

The manufacturing overhead applied was:

- A. \$1,900
- B. \$6,800
- C. \$12,900
- D. \$3,000

117. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
	22,900		

The manufacturing overhead was:

- A. \$1,900 underapplied
- B. \$700 underapplied
- C. \$400 overapplied
- D. \$3,200 overapplied

118. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The balance in the raw materials inventory account on May 30 was:

- A. \$33,500
- B. \$2,000
- C. \$40,000
- D. \$6,500

119. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The cost of goods manufactured for May was:

- A. \$109,670
- B. \$124,620
- C. \$143,300
- D. \$126,820

120. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The entry to dispose of the underapplied or overapplied manufacturing overhead cost for the month would include a:

- A. debit of \$2,200 to Manufacturing Overhead.
- B. debit of \$14,950 to Manufacturing Overhead.
- C. credit of \$14,950 to Manufacturing Overhead.
- D. credit of \$2,200 to Manufacturing Overhead.

121. Messina Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The direct materials cost for August is:

- A. \$73,000
- B. \$69,000
- C. \$81,000
- D. \$57,000

122. Messina Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The cost of goods manufactured for August is:

- A. \$227,000
- B. \$229,000
- C. \$219,000
- D. \$217,000

123. Messana Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The adjusted cost of goods sold that appears on the income statement for August is:

- A. \$229,000
- B. \$211,000
- C. \$209,000
- D. \$247,000

124. Tondre Inc. has provided the following data for the month of July:

Inventories:	Beginning	Ending
Work in process	\$23,000	\$21,000
Finished goods	\$26,000	\$35,000
Additional information:		
Direct materials	\$56,000	
Direct labor cost	\$91,000	
Manufacturing overhead cost incurred	\$58,000	
Manufacturing overhead cost applied to Work in Process	\$61,000	

The cost of goods manufactured for July is:

- A. \$210,000
- B. \$205,000
- C. \$208,000
- D. \$207,000

125. Tondre Inc. has provided the following data for the month of July:

Inventories:	Beginning	Ending
Work in process	\$23,000	\$21,000
Finished goods	\$26,000	\$35,000
Additional information:		
Direct materials	\$56,000	
Direct labor cost	\$91,000	
Manufacturing overhead cost incurred	\$58,000	
Manufacturing overhead cost applied to Work in Process	\$61,000	

The adjusted cost of goods sold that appears on the income statement for July is:

- A. \$201,000
- B. \$198,000
- C. \$219,000
- D. \$210,000

Essay Questions

126. Christoffense Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:		
Estimated machine-hours	38,000	
Estimated variable manufacturing overhead	\$3.33	per machine-hour
Estimated total fixed manufacturing overhead	\$548,720	
Actual machine-hours for the year	33,700	

Required:

Compute the company's predetermined overhead rate for the recently completed year.

127. Cacioppo Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 66,000 labor-hours. The estimated variable manufacturing overhead was \$7.45 per labor-hour and the estimated total fixed manufacturing overhead was \$1,760,220. The actual labor-hours for the year turned out to be 63,800 labor-hours.

Required:

Compute the company's predetermined overhead rate for the recently completed year.

128. Sigel Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the machine-hours for the upcoming year at 52,000 machine-hours. The estimated variable manufacturing overhead was \$3.40 per machine-hour and the estimated total fixed manufacturing overhead was \$624,520.

Required:

Compute the company's predetermined overhead rate.

129. Huckleby Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	24,000	
Estimated variable manufacturing overhead	\$3.89	per machine-hour
Estimated total fixed manufacturing overhead	\$535,200	

Required:

Compute the company's predetermined overhead rate.

130. Quark Spy Equipment manufactures espionage equipment. Quark uses a job-order costing system and applies overhead to jobs on the basis of direct labor-hours. For the current year, Quark estimated that it would work 100,000 direct labor-hours and incur \$20,000,000 of manufacturing overhead cost. The following summarized information relates to January of the current year. The raw materials purchased include both direct and indirect materials.

Raw materials purchased on account	\$1,412,000
Direct materials requisitioned into production	\$1,299,500
Indirect materials requisitioned into production	\$98,000
Direct labor cost (7,900 hours @ \$40 per hour)	\$316,000
Indirect labor cost (10,200 hours @ \$16 per hour)	\$163,200
Depreciation on the factory building	\$190,500
Depreciation on the factory equipment	\$890,700
Utilities for the factory	\$79,600
Cost of jobs finished	\$2,494,200
Cost of jobs sold	\$2,380,000
Sales (all on account)	\$3,570,000

Required:

Prepare journal entries to record Quark's transactions for the month of January. Do not close out the manufacturing overhead account.

131. Allenton Company is a manufacturing firm that uses job-order costing. At the beginning of the year, the company's inventory balances were as follows:

Raw materials	\$26,000
Work in process	\$47,000
Finished goods	\$133,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 31,000 machine-hours and incur \$248,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- a. Raw materials were purchased, \$411,000.
- b. Raw materials were requisitioned for use in production, \$409,000 (\$388,000 direct and \$21,000 indirect).
- c. The following employee costs were incurred: direct labor, \$145,000; indirect labor, \$61,000; and administrative salaries, \$190,000.
- d. Selling costs, \$148,000.
- e. Factory utility costs, \$12,000.
- f. Depreciation for the year was \$121,000 of which \$114,000 is related to factory operations and \$7,000 is related to selling, general, and administrative activities.
- g. Manufacturing overhead was applied to jobs. The actual level of activity for the year was 29,000 machine-hours.
- h. The cost of goods manufactured for the year was \$783,000.
- i. Sales for the year totaled \$1,107,000 and the costs on the job cost sheets of the goods that were sold totaled \$768,000.
- j. The balance in the Manufacturing Overhead account was closed out to Cost of Goods Sold.

Required:

Prepare the appropriate journal entry for each of the items above (a. through j.). You can assume that all transactions with employees, customers, and suppliers were conducted in cash.

132. Bakerston Company is a manufacturing firm that uses job-order costing. The company's inventory balances were as follows at the beginning and end of the year:

	Beginning Balance	Ending Balance
Raw materials	\$14,000	\$22,000
Work in process	\$27,000	\$9,000
Finished goods	\$62,000	\$77,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 33,000 machine-hours and incur \$231,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- Raw materials were purchased, \$315,000.
- Raw materials were requisitioned for use in production, \$307,000 (\$281,000 direct and \$26,000 indirect).
- The following employee costs were incurred: direct labor, \$377,000; indirect labor, \$96,000; and administrative salaries, \$172,000.
- Selling costs, \$147,000.
- Factory utility costs, \$10,000.
- Depreciation for the year was \$127,000 of which \$120,000 is related to factory operations and \$7,000 is related to selling, general, and administrative activities.
- Manufacturing overhead was applied to jobs. The actual level of activity for the year was 34,000 machine-hours.
- Sales for the year totaled \$1,253,000.

Required:

- a. Prepare a schedule of cost of goods manufactured.
- b. Was the overhead underapplied or overapplied? By how much?
- c. Prepare an income statement for the year. The company closes any underapplied or overapplied overhead to Cost of Goods Sold.

133. Parker Company uses a job-order costing system and applies manufacturing overhead to jobs using a predetermined overhead rate based on direct labor-hours. Last year manufacturing overhead and direct labor-hours were estimated at \$50,000 and 20,000 hours, respectively, for the year. In June, Job #461 was completed. Materials costs on the job totaled \$4,000 and labor costs totaled \$1,500 at \$5 per hour. At the end of the year, it was determined that the company worked 24,000 direct labor-hours for the year and incurred \$54,000 in actual manufacturing overhead costs.

Required:

- a. Job #461 contained 100 units. Determine the unit product cost that would appear on the job cost sheet.
- b. Determine the underapplied or overapplied overhead for the year.

134. Hacken Company has a job-order costing system. The company applies manufacturing overhead to jobs using a predetermined overhead rate based on direct labor cost. The information below has been taken from the cost records of Hacken Company for the past year:

Direct materials used in production	\$1,250
Total manufacturing costs charged to production during the year (includes direct materials, direct labor, and applied manufacturing overhead)	\$6,050
Manufacturing overhead applied	\$2,800
Selling and administrative expenses	\$1,000
Inventories:	
Direct materials, January 1	\$130
Direct materials, December 31	\$80
Work in process, January 1	\$250
Work in process, December 31	\$400
Finished goods, January 1	\$300
Finished goods, December 31	\$200

Required:

- a. Compute the cost of direct materials purchased during the year.
- b. Compute the predetermined overhead rate that was used during the past year.
- c. Compute the Cost of Goods Manufactured for the past year.
- d. Compute the unadjusted Cost of Goods Sold for the past year.

135. Job 231 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$52,260	
Direct labor-hours	1,326	labor-hours
Direct labor wage rate	\$10	per labor-hour
Machine-hours	819	machine-hours
Number of units completed	3,900	units

The company applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$11 per machine-hour.

Required:

Compute the unit product cost that would appear on the job cost sheet for this job.

136. Job 397 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$59,400	
Direct labor-hours	1,254	DLHs
Direct labor wage rate	\$11	per DLH
Number of units completed	3,300	units

The company applies manufacturing overhead on the basis of direct labor-hours. The predetermined overhead rate is \$37 per direct labor-hour.

Required:

Compute the unit product cost that would appear on the job cost sheet for this job.

137. The Commonwealth Company uses a job-order costing system and applies manufacturing overhead cost to jobs using a predetermined overhead rate based on the cost of materials used in production. At the beginning of the year, the following estimates were made as a basis for computing the predetermined overhead rate: manufacturing overhead cost, \$186,000; direct materials cost, \$155,000. The following transactions took place during the year (all purchases and services were acquired on account):

- a. Raw materials purchased, \$96,000.
- b. Raw materials requisitioned for use in production (all direct materials), \$88,000.
- c. Utility bills incurred in the factory, \$17,000.
- d. Costs for salaries and wages incurred as follows:

Direct labor	\$174,000
Indirect labor	\$70,000
Selling and administrative salaries	\$124,000

- e. Maintenance costs incurred in the factory, \$12,000.
- f. Advertising costs incurred, \$98,000.
- g. Depreciation recorded for the year, \$75,000 (75 percent relates to factory assets and the remainder relates to selling, general, and administrative assets).
- h. Rental cost incurred on buildings, \$80,000 (80 percent of the space is occupied by the factory, and 20 percent is occupied by sales and administration).
- i. Miscellaneous selling, general, and administrative costs incurred, \$12,000.
- j. Manufacturing overhead cost was applied to jobs.
- k. Cost of goods manufactured for the year, \$480,000.
- l. Sales for the year (all on account) totaled \$900,000. These goods cost \$550,000 to manufacture.

Required:

Prepare journal entries to record the information above. Key your entries by the letters a through l.

138. Maggie Manufacturing Company applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any underapplied or overapplied overhead is closed to Cost of Goods Sold at the end of the month. During August, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$30,000
Used in production	\$34,000
Labor:	
Direct labor-hours worked during the month	4,000
Direct labor costs incurred	\$32,000
Indirect labor costs incurred	\$8,000
Manufacturing overhead costs incurred (total)	\$22,000
Inventories:	
Raw materials (all direct) August 31	\$10,000
Work in process, August 1	\$8,400
Work in process, August 31	\$16,000

Required:

Determine the following:

- a. The August 1 balance of Raw Materials.
- b. The amount of manufacturing overhead applied to jobs in August.
- c. The Cost of Goods Manufactured for August.
- d. The overapplied or underapplied manufacturing overhead for the month. Label this amount appropriately.

139. During December, Mccroskey Corporation incurred \$66,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$69,000.

Required:

Prepare journal entries to record the incurrence of manufacturing overhead and the application of manufacturing overhead to Work in Process.

140. During December, Deller Corporation purchased \$79,000 of raw materials on credit to add to its raw materials inventory. A total of \$68,000 of raw materials was requisitioned from the storeroom for use in production. These requisitioned raw materials included \$4,000 of indirect materials.

Required:

Prepare journal entries to record the purchase of materials and their use in production.

141. Alden Company recorded the following transactions for the just completed month. The company had no beginning inventories.

(a) \$72,000 in raw materials were purchased for cash.

(b) \$67,000 in raw materials were requisitioned for use in production. Of this amount, \$56,000 was for direct materials and the remainder was for indirect materials.

(c) Total labor wages of \$112,000 were incurred and paid in cash. Of this amount, \$94,000 was for direct labor and \$18,000 was for indirect labor.

(d) Additional manufacturing overhead costs of \$108,000 were incurred and paid in cash.

(e) Manufacturing overhead costs of \$130,000 were applied to jobs using the company's predetermined overhead rate.

(f) All of the jobs worked on during the month were completed and shipped to customers.

(g) The underapplied or overapplied overhead for the month was closed out to Cost of Goods Sold.

Required:

a. Post the above transactions to T-accounts.

b. Determine the cost of goods manufactured.

c. Determine the cost of goods sold (after closing Manufacturing Overhead).

142. Schoff Corporation has provided the following data for the most recent month:

Raw materials, beginning balance	\$12,000
Work in process, beginning balance	\$24,000
Finished Goods, beginning balance	\$54,000
Transactions:	
(1) Raw materials purchases	\$77,000
(2) Raw materials used in production (all direct materials)	\$80,000
(3) Direct labor	\$74,000
(4) Manufacturing overhead costs incurred	\$84,000
(5) Manufacturing overhead applied	\$78,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$244,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$278,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

143. During January, Shanker Corporation recorded the following:

Raw materials, beginning balance	\$10,000
Work in process, beginning balance	\$24,000
Finished Goods, beginning balance	\$53,000

Transactions:	
(1) Raw materials purchases	\$63,000
(2) Raw materials used in production (all direct materials)	\$62,000
(3) Direct labor	\$75,000
(4) Manufacturing overhead costs incurred	\$71,000
(5) Manufacturing overhead applied	\$66,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$195,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$222,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, and Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

144. Sowers Inc. has provided the following data for October:

Raw materials, beginning balance	\$11,000
Work in process, beginning balance	\$29,000
Finished Goods, beginning balance	\$58,000

Transactions:	
(1) Raw materials purchases	\$67,000
(2) Raw materials used in production (all direct materials)	\$68,000
(3) Direct labor	\$52,000
(4) Manufacturing overhead costs incurred	\$78,000
(5) Manufacturing overhead applied	\$68,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$191,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$244,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, and Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

145. PirkI Corporation has provided the following data for the month of March:

Inventories:	Beginning	Ending
Raw materials	\$25,000	\$30,000
Work in process	\$16,000	\$18,000
Finished goods	\$36,000	\$59,000

Additional information:	
Raw materials purchases	\$71,000
Direct labor cost	\$83,000
Manufacturing overhead cost incurred	\$74,000
Indirect materials included in manufacturing overhead cost incurred	\$5,000
Manufacturing overhead cost applied to Work in Process	\$71,000

Required:

Prepare a Schedule of Cost of Goods Manufactured and a Schedule of Cost of Goods Sold.

Chapter 02 Job-Order Costing Answer Key

True / False Questions

1. The use of a predetermined overhead rate in a job-order cost system makes it possible to compute the total cost of a job before production is begun.

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 3 Hard

Topic Area: Job Order Costing-The Flow of Costs

2. If direct labor-hours is used as the allocation base in a job-order costing system, but overhead costs are not caused by direct-labor hours, then jobs with high direct labor requirements will tend to be undercosted relative to jobs with low direct labor requirements.

FALSE

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

3. The formula for computing the predetermined overhead rate is:
Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

TRUE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Learning Objective: 02-01 Compute a predetermined overhead rate.
Level of Difficulty: 1 Easy
Topic Area: Job Order Costing-The Flow of Costs

4. When the predetermined overhead rate is based on direct labor-hours, the amount of overhead applied to a job is proportional to the estimated amount of direct labor-hours for the job.

FALSE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understand
Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.
Level of Difficulty: 2 Medium
Topic Area: Applying Manufacturing Overhead

5. The cost of a completed job in a job-order costing system typically consists of the actual direct materials cost of the job, the actual direct labor cost of the job, and the manufacturing overhead cost applied to the job.

TRUE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy
Topic Area: Computation of Unit Costs

6. Job cost sheets are used to record the costs of preparing routine accounting reports.

FALSE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understand

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 2 Medium
Topic Area: Computation of Unit Costs

7. In a job-order cost system, direct labor is assigned to a job using information from the employee time ticket.

TRUE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understand

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 2 Medium
Topic Area: Computation of Unit Costs

8. The cost categories that appear on a job cost sheet include selling expense, manufacturing expense, and administrative expense.

FALSE

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy
Topic Area: Computation of Unit Costs

9. When completed goods are sold, the transaction is recorded as a debit to Cost of Goods Sold and a credit to Finished Goods.

TRUE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

10. The following entry would be used to record depreciation on manufacturing equipment:

Work in Process	XXX	
Accumulated Depreciation		XXX

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Understand

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

11. The sum of all amounts transferred from the Work in Process account to the Finished Goods account represents the Cost of Goods Sold for the period.

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

12. Indirect materials are charged to specific jobs.

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

13. When a job is completed, the goods are transferred from the production department to the finished goods warehouse and the journal entry would include a debit to Work in Process.

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

14. Manufacturing overhead is overapplied if actual manufacturing overhead costs for a period are greater than the amount of manufacturing overhead cost that was charged to Work in Process.

FALSE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

15. If the actual manufacturing overhead cost for a period exceeds the manufacturing overhead cost applied, then manufacturing overhead would be considered to be underapplied.

TRUE

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

Multiple Choice Questions

16. Emco Company uses direct labor cost as a basis for computing its predetermined overhead rate. In computing the predetermined overhead rate for last year, the company misclassified a portion of direct labor cost as indirect labor. The effect of this misclassification will be to:

- A. understate the predetermined overhead rate.
- B.** overstate the predetermined overhead rate.
- C. have no effect on the predetermined overhead rate.
- D. cannot be determined from the information given.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Analyze

Learning Objective: 02-01 Compute a predetermined overhead rate.

17. Departmental overhead rates are generally preferred to plant-wide overhead rates when:
- A. the activities of the various departments in the plant are not homogeneous.
 - B. the activities of the various departments in the plant are homogeneous.
 - C. most of the overhead costs are fixed.
 - D. all departments in the plant are heavily automated.

AACSB: Reflective Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understand
Learning Objective: 02-01 Compute a predetermined overhead rate.
Level of Difficulty: 2 Medium
Source: CMA, adapted
Topic Area: Job Order Costing-The Flow of Costs

18. In computing its predetermined overhead rate, Brady Company included its factory insurance cost twice. This error will result in:
- A. the ending balance of Finished Goods to be understated.
 - B. the credits to the Manufacturing Overhead account to be understated.
 - C. the Cost of Goods Manufactured to be overstated.
 - D. the Net Operating Income to be overstated.

AACSB: Analytical Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Analyze
Learning Objective: 02-01 Compute a predetermined overhead rate.
Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.
Level of Difficulty: 3 Hard
Topic Area: Job Order Costing-The Flow of Costs
Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

19. Which of the following entries would correctly record the application of overhead cost?

A.	Work in Process	XXX	
	Accounts Payable		XXX
B.	Manufacturing Overhead	XXX	
	Accounts Payable		XXX
C.	Manufacturing Overhead	XXX	
	Work in Process		XXX
<u>D.</u>	Work in Process		XXX
	Manufacturing Overhead		XXX

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Remember

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

20. What journal entry is made in a job-order costing system when \$8,000 of materials are requisitioned for general factory use instead of for use in a particular job?

A.	Work in Process		\$8,000	
	Manufacturing Overhead			\$8,000
B.	Work in Process	\$8,000		
	Raw Materials		\$8,000	
C.	Manufacturing Overhead	\$8,000		
	Work in Process			\$8,000
<u>D.</u>	Manufacturing Overhead	\$8,000		
	Raw Materials			\$8,000

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Understand

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

21. A proper journal entry to record issuing raw materials to be used on a job would be:

A.	Finished Goods	XXX	
	Raw Materials		XXX
B.	Raw Materials	XXX	
	Work in Process		XXX
<u>C.</u>	Work in Process	XXX	
	Raw Materials		XXX
D.	Raw Materials	XXX	
	Finished Goods		XXX

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Remember

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

22. Which of the following entries would record correctly the monthly salaries earned by the top management of a manufacturing company?

A.	Manufacturing Overhead	XXX	
	Salaries and Wages Payable		XXX
B.	Salaries Expense	XXX	
	Salaries and Wages Payable		XXX
C.	Work in Process	XXX	
	Salaries and Wages Payable		XXX
D.	Salaries and Wages Payable	XXX	
	Salaries Expense		XXX

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Remember

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

23. In a job-order costing system, the use of indirect materials that have been previously purchased is recorded as a credit to:

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

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Remember

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 1 Easy

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

24. On the Schedule of Cost of Goods Manufactured, the final Cost of Goods Manufactured figure represents:

- A. the amount of cost charged to Work in Process during the period.
- B. the amount of cost transferred from Finished Goods to Cost of Goods Sold during the period.
- C. the amount of cost placed into production during the period.
- D.** the amount of cost of goods completed during the current year whether they were started before or during the current year.

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Understand

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 3 Hard

Topic Area: Underapplied and Overapplied Overhead

25. Overapplied manufacturing overhead means that:

- A. the applied manufacturing overhead cost was less than the actual manufacturing overhead cost.
- B.** the applied manufacturing overhead cost was greater than the actual manufacturing overhead cost.
- C. the estimated manufacturing overhead cost was less than the actual manufacturing overhead cost.
- D. the estimated manufacturing overhead cost was less than the applied manufacturing overhead cost.

AACSB: Reflective Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Remember

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 1 Easy

26. Buker Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	74,000	
Estimated variable manufacturing overhead	\$7.67	per machine-hour
Estimated variable manufacturing overhead	\$1,630,960	

The predetermined overhead rate for the recently completed year was closest to:

- A. \$22.04
- B. \$29.59
- C. \$7.67
- D. \$29.71

Estimated total manufacturing overhead = $\$1,630,960 + (\$7.67 \text{ per machine-hour} \times 74,000 \text{ machine-hours}) = \$2,198,540$

Predetermined overhead rate = Estimated total manufacturing overhead \div Estimated total amount of the allocation base = $\$2,198,540 \div 74,000 \text{ machine-hours} = \$29.71 \text{ per machine-hour}$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

27. Hibshman Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 10,000 machine-hours. The estimated variable manufacturing overhead was \$6.82 per machine-hour and the estimated total fixed manufacturing overhead was \$230,200. The predetermined overhead rate for the recently completed year was closest to:

- A. \$29.84 per machine-hour
- B. \$23.15 per machine-hour
- C. \$23.02 per machine-hour
- D. \$6.82 per machine-hour

Estimated total manufacturing overhead = \$230,200 + (\$6.82 per machine-hour × 10,000 machine-hours) = \$298,400

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$298,400 ÷ 10,000 machine-hours = \$29.84 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

28. CR Corporation has the following estimated costs for the next year:

Direct materials	\$4,000
Direct labor	\$20,000
Rent on factory building	\$15,000
Sales salaries	\$25,000
Depreciation on factory equipment	\$8,000
Indirect labor	\$10,000
Production supervisor's salary	\$12,000

CR Corporation estimates that 20,000 labor-hours will be worked during the year. If overhead is applied on the basis of direct labor-hours, the overhead rate per hour will be:

- A. \$2.25
- B. \$3.25
- C. \$3.45
- D. \$4.70

Rent on factory building	\$15,000
Depreciation on factory equipment	8,000
Indirect labor	10,000
Production supervisor's salary	12,000
Total manufacturing overhead	\$45,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$45,000 ÷ 20,000 direct labor-hours = \$2.25 per direct labor-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

29. Jameson Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for the next year:

Direct materials	\$5,000
Direct labor	\$19,000
Rent on factory building	\$16,000
Sales salaries	\$24,000
Depreciation on factory equipment	\$7,000
Indirect labor	\$11,000
Production supervisor's salary	\$14,000

Jameson estimates that 24,000 direct labor-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A. \$2.00
- B. \$2.79
- C. \$3.00
- D. \$4.00

Rent on factory building	\$16,000
Depreciation on factory equipment	7,000
Indirect labor	11,000
Production supervisor's salary	14,000
Manufacturing overhead	\$48,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$48,000 ÷ 24,000 direct labor-hours = \$2.00 per direct labor-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

30. Paulson Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for next year:

Direct materials	\$25,000
Direct labor	\$22,000
Advertising expense	\$15,000
Rent on factory building	\$13,500
Depreciation on factory equipment	\$6,500
Indirect materials	\$10,000
Sales salaries	\$28,000
Insurance on factory equipment	\$12,000

Paulson estimated that 40,000 direct labor-hours and 20,000 machine-hours would be worked during the year. The predetermined overhead rate per machine-hour will be:

- A. \$1.60
- B. \$2.10**
- C. \$1.00
- D. \$1.05

Rent on factory building	\$13,500
Depreciation on factory equipment	6,500
Indirect materials	10,000
Insurance on factory equipment	12,000
Manufacturing overhead	\$42,000

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$42,000 ÷ 20,000 machine-hours = \$2.10 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

31. Aksamit Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:		
Estimated machine-hours	62,000	
Estimated variable manufacturing overhead	\$7.03	per machine-hour
Estimated total fixed manufacturing overhead	\$1,486,140	
Actual machine-hours for the year	61,100	

The predetermined overhead rate for the recently completed year was closest to:

- A. \$23.97
- B. \$31.00**
- C. \$7.03
- D. \$31.35

Estimated total manufacturing overhead = \$1,486,140 + (\$7.03 per machine-hour × 62,000 machine-hours) = \$1,922,000

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,922,000 ÷ 62,000 machine-hours = \$31.00 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

32. Simons Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 70,000 labor-hours. The estimated variable manufacturing overhead was \$9.93 per labor-hour and the estimated total fixed manufacturing overhead was \$1,649,200. The actual labor-hours for the year turned out to be 74,000 labor-hours. The predetermined overhead rate for the recently completed year was closest to:
- A. \$32.22
 - B. \$9.93
 - C. \$33.49
 - D. \$23.56

Estimated total manufacturing overhead = \$1,649,200 + (\$9.93 per labor-hour × 70,000 labor-hours) = \$2,344,300

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$2,344,300 ÷ 70,000 labor-hours = \$33.49 per labor-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

33. The Work in Process inventory account of a manufacturing Corporation shows a balance of \$18,000 at the end of an accounting period. The job cost sheets of the two uncompleted jobs show charges of \$6,000 and \$3,000 for materials, and charges of \$4,000 and \$2,000 for direct labor. From this information, it appears that the Corporation is using a predetermined overhead rate, as a percentage of direct labor costs, of:

- A. 50%
- B. 200%
- C. 300%
- D. 20%

Materials	\$6,000	\$3,000
Direct labor	\$4,000	\$2,000
Manufacturing overhead applied	\$4,000X	\$2,000X
Total product cost	\$10,000 + \$4,000X	\$5,000 + \$2,000Y

$$(\$10,000 + \$4,000X) + (\$5,000 + \$2,000X) = \$18,000$$

$$\$6,000X = \$3,000$$

$$X = 0.50$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

34. The following T-accounts have been constructed from last year's records at C&C Manufacturing:

Raw Materials			
Bal	10,000	(b)	252,000
(a)	247,000		
	5,000		

Work In Process			
Bal	6,000	(f)	506,000
(b)	161,000		
(c)	154,000		
(e)	192,500		
	7,500		

Finished Goods			
Bal	0	(g)	500,000
(f)	506,000		
	6,000		

Manufacturing Overhead			
(b)	91,000	(e)	192,500
(c)	26,000		
(d)	78,000		
	195,000		192,500
	2,500	(h)	2,500

Cost of Goods Sold		
(g)	500,000	
(h)	2,500	

C&C Manufacturing uses job-order costing with a predetermined overhead rate and applies manufacturing overhead to jobs based on direct labor costs. What is the predetermined overhead rate?

- A. 125%
- B. 120%
- C. 100%
- D. 105%

Entry (b) refers to materials from the Raw Materials account. Entry (c) in the Manufacturing Overhead account must refer to indirect labor because the corresponding entry in the Work In Process account must be for direct labor. Entry (c) could not be for manufacturing overhead because there would be no entry in Work In Process. Therefore, entry (c) must be for direct and indirect labor. The direct labor must be \$154,000 and the manufacturing overhead applied is the \$192,500 credit entry (e) in the Manufacturing Overhead account. Therefore,

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

\$192,500 = Predetermined overhead rate × \$154,000

Predetermined overhead rate = \$192,500 ÷ \$154,000 = 1.25

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Analyze

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

35. Bradbeer Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the estimated direct labor-hours were 17,500 hours. At the end of the year, actual direct labor-hours for the year were 16,000 hours, the actual manufacturing overhead for the year was \$233,000, and manufacturing overhead for the year was underapplied by \$15,400. The estimated manufacturing overhead at the beginning of the year used in the predetermined overhead rate must have been:

- A. \$249,375
- B. \$217,600
- C. \$228,000
- D. \$238,000

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead - Manufacturing overhead applied

$$\begin{aligned} \text{Manufacturing overhead applied} &= \text{Actual manufacturing overhead} - \text{Underapplied manufacturing overhead} \\ &= \$233,000 - \$15,400 \\ &= \$217,600 \end{aligned}$$

$$\begin{aligned} \text{Overhead applied} &= \text{Predetermined overhead rate} \times \text{Amount of the allocation base incurred} \\ \text{Predetermined overhead rate} &= \text{Overhead applied} \div \text{Amount of the allocation base incurred} \\ \text{Predetermined overhead rate} &= \$217,600 \div 16,000 \text{ direct labor-hours} \\ &= \$13.60 \text{ per direct labor-hour} \end{aligned}$$

Predetermined overhead rate = Estimated total manufacturing overhead \div Estimated total amount of the allocation base

$$\begin{aligned} \text{Estimated total manufacturing overhead} &= \text{Predetermined overhead rate} \times \text{Estimated total amount of the allocation base} \\ &= \$13.60 \text{ per direct labor-hour} \times 17,500 \text{ direct labor-hours} \\ &= \$238,000 \end{aligned}$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

36. Dagger Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the total estimated manufacturing overhead was \$423,870. At the end of the year, actual direct labor-hours for the year were 19,400 hours, manufacturing overhead for the year was underapplied by \$5,650, and the actual manufacturing overhead was \$418,870. The predetermined overhead rate for the year must have been closest to:
- A. \$21.59
 - B. \$20.76
 - C. \$21.30
 - D. \$21.85

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead -
Manufacturing overhead applied

Manufacturing overhead applied = Actual manufacturing overhead - Underapplied
manufacturing overhead
= \$418,870 - \$5,650
= \$413,220

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total
amount of the allocation base = \$413,220 ÷ 19,400 direct labor-hours = \$21.30 per direct labor-
hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

37. Sawyer Manufacturing Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. Last year, the Corporation worked 57,000 actual direct labor-hours and incurred \$345,000 of actual manufacturing overhead cost. The Corporation had estimated that it would work 55,000 direct labor-hours during the year and incur \$330,000 of manufacturing overhead cost. The Corporation's manufacturing overhead cost for the year was:

- A. overapplied by \$15,000
- B. underapplied by \$15,000
- C. overapplied by \$3,000
- D. underapplied by \$3,000**

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 55,000 direct labor-hours = \$6 per direct labor-hour

Overhead over or underapplied

Actual manufacturing overhead incurred	<u>\$345,000</u>	
Manufacturing overhead applied to Work in Process:		
Predetermined overhead rate (a)	\$6	per direct labor-hour
Actual total amount of the allocation base (b)	<u>57,000</u>	direct labor-hours
Manufacturing overhead applied (a) × (b)	<u>\$342,000</u>	
Underapplied (overapplied) manufacturing overhead	<u>\$3,000</u>	

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

38. Clear Colors Corporation uses a predetermined overhead rate based on direct labor costs to apply manufacturing overhead to jobs. At the beginning of the year the Corporation estimated its total manufacturing overhead cost at \$350,000 and its direct labor costs at \$200,000. The actual overhead cost incurred during the year was \$362,000 and the actual direct labor costs incurred on jobs during the year was \$208,000. The manufacturing overhead for the year would be:
- A. \$12,000 underapplied.
 - B. \$12,000 overapplied.
 - C. \$2,000 underapplied.
 - D. \$2,000 overapplied.**

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = $\$350,000 \div \$200,000 = 1.75$

Overhead over or underapplied

Actual manufacturing overhead incurred	<u>\$362,000</u>
Manufacturing overhead applied to Work in Process:	
Predetermined overhead rate (a)	1.75
Actual total amount of the allocation base (b)	<u>\$208,000</u>
Manufacturing overhead applied (a) × (b)	<u>\$364,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$(2,000)</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

39. Cribb Corporation uses direct labor-hours in its predetermined overhead rate. At the beginning of the year, the estimated direct labor-hours were 17,900 hours and the total estimated manufacturing overhead was \$341,890. At the end of the year, actual direct labor-hours for the year were 16,700 hours and the actual manufacturing overhead for the year was \$336,890. Overhead at the end of the year was:

- A. \$22,920 underapplied
- B. \$17,920 overapplied
- C. \$17,920 underapplied
- D. \$22,920 overapplied

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base
 = \$341,890 ÷ 17,900 direct labor-hours
 = \$19.10 per direct labor-hour

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred
 = \$19.10 per direct labor-hour × 16,700 direct labor-hours
 = \$318,970

Overhead over or underapplied

Actual manufacturing overhead incurred	\$336,890
Manufacturing overhead applied to Work in Process	<u>318,970</u>
Underapplied (overapplied) manufacturing overhead	<u>\$17,920</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

40. Brusveen Corporation applies manufacturing overhead to jobs on the basis of direct labor-hours. The following information relates to Brusveen for last year:

	Estimated	Actual
Direct labor-hours	15,000	14,800
Manufacturing overhead cost	\$300,000	\$287,120

What was Brusveen's underapplied or overapplied overhead for last year?

- A. \$4,000 underapplied
- B. \$8,880 underapplied
- C. \$8,880 overapplied**
- D. \$9,000 underapplied

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$300,000 ÷ 15,000 direct labor-hours = \$20 per direct labor-hour

Overhead over or underapplied		
Actual manufacturing overhead incurred	<u>\$287,120</u>	
Manufacturing overhead applied to Work in Process:		
Predetermined overhead rate (a)	\$20	per direct labor-hour
Actual total amount of the allocation base (b)	<u>14,800</u>	direct labor-hours
Manufacturing overhead applied (a) × (b)	<u>\$296,000</u>	
Underapplied (overapplied) manufacturing overhead	<u>(\$8,880)</u>	

AACSB: Analytical Thinking
AICPA: BB Critical Thinking
AICPA: FN Measurement
Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

41. Collins Corporation uses a predetermined overhead rate based on direct labor cost to apply manufacturing overhead to jobs. The following information applies to the Corporation for the current year:

Direct labor-hours:	
Estimated for the year	24,000
Actual hours worked	19,500
Direct labor cost:	
Estimated for the year	\$300,000
Actual cost incurred	\$210,000
Manufacturing overhead:	
Estimated for the year	\$240,000
Actual cost incurred	\$185,000

The manufacturing overhead cost for the current year will be:

- A. \$17,000 overapplied
- B. \$17,000 underapplied**
- C. \$55,000 overapplied
- D. \$55,000 underapplied

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$240,000 ÷ \$300,000 = 0.80

Overhead over or underapplied

Actual manufacturing overhead incurred	<u>\$185,000</u>
Manufacturing overhead applied to Work in Process:	
Predetermined overhead rate (a)	0.80
Actual total amount of the allocation base (b)	<u>\$210,000</u>
Manufacturing overhead applied (a) × (b)	<u>\$168,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$17,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

42. At the beginning of the year, manufacturing overhead for the year was estimated to be \$477,590. At the end of the year, actual direct labor-hours for the year were 29,000 hours, the actual manufacturing overhead for the year was \$472,590, and manufacturing overhead for the year was overapplied by \$110. If the predetermined overhead rate is based on direct labor-hours, then the estimated direct labor-hours at the beginning of the year used in the predetermined overhead rate must have been:

- A. 29,300 direct labor-hours
- B. 28,987 direct labor-hours
- C. 28,993 direct labor-hours
- D. 29,000 direct labor-hours

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead -
Manufacturing overhead applied

$$-\$110 = \$472,590 - \text{Overhead applied}$$

$$\text{Manufacturing overhead applied} = \$472,590 + \$110 = \$472,700$$

Manufacturing overhead applied = Predetermined overhead rate \times Actual direct labor-hours

Predetermined overhead rate = Manufacturing overhead applied \div Actual direct labor-hours

$$= \$472,700 \div 29,000 \text{ direct labor-hours}$$

$$= \$16.30 \text{ per direct labor-hour}$$

Predetermined overhead rate = Estimated total manufacturing overhead \div Estimated direct labor-hours

Estimated direct labor-hours = Estimated total manufacturing overhead \div Predetermined overhead rate

$$= \$477,590 \div \$16.30 \text{ per direct labor-hour}$$

$$= 29,300 \text{ direct labor-hours}$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

43. Galbraith Corporation applies overhead cost to jobs on the basis of 70% of direct labor cost. If Job 201 shows \$28,000 of manufacturing overhead applied, the direct labor cost on the job was:

- A. \$40,000
- B. \$19,600
- C. \$28,000
- D. \$36,400

Manufacturing overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

$$\$28,000 = 0.70 \times \text{Direct labor cost}$$

$$\text{Direct labor cost} = \$28,000 \div 0.70 = \$40,000$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

44. Job 593 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$3,190	
Direct labor-hours	71	labor-hours
Direct labor wage rate	\$15	per labor-hour
Machine-hours	175	machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$14 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 593 would be:

- A.** \$6,705
- B. \$3,219
- C. \$5,249
- D. \$4,255

Direct materials	\$3,190
Direct labor (71 direct labor-hours × \$15.00 per direct labor-hour)	1,065
Overhead (175 machine-hours × \$14.00 per machine-hour)	2,450
Total manufacturing cost for Job 593	\$6,705

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Computation of Unit Costs

45. The following data have been recorded for recently completed Job 323 on its job cost sheet. Direct materials cost was \$2,260. A total of 37 direct labor-hours and 141 machine-hours were worked on the job. The direct labor wage rate is \$13 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$14 per machine-hour. The total cost for the job on its job cost sheet would be:
- A. \$3,259
 - B. \$2,741
 - C. \$4,715
 - D. \$2,287

Direct materials	\$2,260
Direct labor (37 direct labor-hours × \$13.00 per direct labor-hour)	481
Overhead (141 machine-hours × \$14.00 per machine-hour)	1,974
Total manufacturing cost for Job 323	\$4,715

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Computation of Unit Costs

46. Spectrum Manufacturing had the following information in its records at the end of the year:

Predetermined overhead rate	125% of direct labor costs
Estimated direct labor costs	\$87,500
Actual direct labor costs	\$84,000

Manufacturing Overhead	
11,000	
13,000	
78,000	

What was the balance in Manufacturing Overhead, and when closed what will the effect be on gross margin?

- A. \$3,000 underapplied, and increase
- B. \$3,000 overapplied, and increase**
- C. \$3,000 underapplied, and decrease
- D. \$3,000 overapplied, and decrease

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

$$\text{Overhead applied} = 1.25 \times \$84,000 = \$105,000$$

Manufacturing Overhead	
11,000	105,000
13,000	
<u>78,000</u>	<u> </u>
<u>102,000</u>	<u>105,000</u>
	3,000

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead -
Manufacturing overhead applied = \$102,000 - \$105,000 = -\$3,000

The overapplied overhead will decrease Cost of Goods Sold and therefore increase the gross margin.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Analyze

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Using T-accounts in Job-Order Costing

47. Parsons Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. Last year, Parsons Corporation incurred \$250,000 in actual manufacturing overhead cost. The Manufacturing Overhead account showed that overhead was overapplied \$12,000 for the year. If the predetermined overhead rate was \$8.00 per direct labor-hour, how many hours did the Corporation work during the year?
- A. 31,250 hours
 - B. 30,250 hours
 - C. 32,750 hours
 - D. 29,750 hours

Overapplied manufacturing overhead = Manufacturing overhead applied - Actual manufacturing overhead

Manufacturing overhead applied = Actual manufacturing overhead + Overapplied manufacturing overhead
= \$250,000 + \$12,000
= \$262,000

Manufacturing overhead applied = Predetermined overhead rate × Actual direct labor-hours
Actual direct labor-hours = Manufacturing overhead applied ÷ Predetermined overhead rate
= \$262,000 ÷ \$8.00 per direct labor-hour
= 32,750 direct labor-hours

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Using T-accounts in Job-Order Costing

48. During October, Dorinir Corporation incurred \$60,000 of direct labor costs and \$5,000 of indirect labor costs. The journal entry to record the accrual of these wages would include a:

- A. credit to Work in Process of \$60,000
- B. credit to Work in Process of \$65,000
- C. debit to Work in Process of \$65,000
- D. debit to Work in Process of \$60,000**

Work in Process	60,000	
Manufacturing Overhead	5,000	
Salaries and Wages Payable		65,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

49. Soledad Corporation had \$36,000 of raw materials on hand on December 1. During the month, the Corporation purchased an additional \$71,000 of raw materials. The journal entry to record the purchase of raw materials would include a:

- A. credit to Raw Materials of \$71,000
- B. debit to Raw Materials of \$71,000**
- C. credit to Raw Materials of \$107,000
- D. debit to Raw Materials of \$107,000

Raw Materials	71,000	
Accounts Payable		71,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

50. At the beginning of December, Sneed Corporation had \$32,000 of raw materials on hand. During the month, the Corporation purchased an additional \$71,000 of raw materials. During December, \$75,000 of raw materials were requisitioned from the storeroom for use in production. The credits entered in the Raw Materials account during the month of December total:

- A. \$32,000
- B. \$75,000**
- C. \$71,000
- D. \$103,000

Raw Materials	71,000	
Accounts Payable		71,000
Work in Process	75,000	
Raw Materials		75,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

51. On February 1, Manwill Corporation had \$24,000 of raw materials on hand. During the month, the Corporation purchased an additional \$60,000 of raw materials. During February, \$54,000 of raw materials were requisitioned from the storeroom for use in production. The debits entered in the Raw Materials account during the month of February total:

- A. \$84,000
- B. \$54,000
- C. \$60,000
- D. \$24,000

Raw Materials	60,000	
Accounts Payable		60,000
Work in Process	54,000	
Raw Materials		54,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

52. Donham Corporation had \$25,000 of raw materials on hand on May 1. During the month, the Corporation purchased an additional \$65,000 of raw materials. During May, \$66,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$4,000. The debits to the Work in Process account as a consequence of the raw materials transactions in May total:
- A. \$0
 - B. \$62,000**
 - C. \$65,000
 - D. \$66,000

Work in Process	62,000	
Manufacturing Overhead	4,000	
Raw Materials		66,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

53. During February at Iniquez Corporation, \$79,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$4,000. The journal entry to record the requisition from the storeroom would include a:

- A. debit to Work in Process of \$79,000
- B. debit to Work in Process of \$75,000**
- C. credit to Manufacturing Overhead of \$4,000
- D. debit to Raw Materials of \$79,000

Work in Process	75,000	
Manufacturing Overhead	4,000	
Raw Materials		79,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

54. Epolito Corporation incurred \$87,000 of actual Manufacturing Overhead costs during September. During the same period, the Manufacturing Overhead applied to Work in Process was \$89,000. The journal entry to record the incurrence of the actual Manufacturing Overhead costs would include a:

- A. debit to Work in Process of \$89,000
- B. credit to Manufacturing Overhead of \$87,000
- C. debit to Manufacturing Overhead of \$87,000
- D. credit to Work in Process of \$89,000

To record the incurrence of actual Manufacturing Overhead costs:

Manufacturing Overhead	87,000	
Accounts Payable, Cash, other asset accounts		87,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

55. Traves Corporation incurred \$69,000 of actual Manufacturing Overhead costs during October. During the same period, the Manufacturing Overhead applied to Work in Process was \$68,000. The journal entry to record the application of Manufacturing Overhead to Work in Process would include a:

- A. debit to Manufacturing Overhead of \$68,000
- B. credit to Manufacturing Overhead of \$68,000**
- C. debit to Work in Process of \$69,000
- D. credit to Work in Process of \$69,000

To record application of Manufacturing Overhead to Work In Process:

Work in Process	68,000	
Manufacturing Overhead		68,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

56. During October, Beidleman Inc. transferred \$52,000 from Work in Process to Finished Goods and recorded a Cost of Goods Sold of \$55,000. The journal entries to record these transactions would include a:

- A. credit to Cost of Goods Sold of \$55,000
- B. credit to Work in Process of \$52,000**
- C. debit to Finished Goods of \$55,000
- D. credit to Finished Goods of \$52,000

Finished Goods	52,000	
Work in Process		52,000
Cost of Goods Sold	55,000	
Finished Goods		55,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

57. In July, Essinger Inc. incurred \$72,000 of direct labor costs and \$3,000 of indirect labor costs. The journal entry to record the accrual of these wages would include a:

- A. debit to Manufacturing Overhead of \$3,000
- B. credit to Manufacturing Overhead of \$3,000
- C. credit to Work in Process of \$75,000
- D. debit to Work in Process of \$75,000

Work in Process	72,000	
Manufacturing Overhead	3,000	
Salaries and Wages Payable		75,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

58. During May at Shatswell Corporation, \$57,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$7,000. The journal entry to record this requisition would include a debit to Manufacturing Overhead of:

- A. \$57,000
- B. \$7,000**
- C. \$0
- D. \$50,000

Work in Process	50,000	
Manufacturing Overhead	7,000	
Raw Materials		57,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

59. Which of the following entries or sets of entries would record sales for the month of July of \$200,000 for goods costing \$119,000 for?

A.

Accounts Receivable	200,000	
Sales		200,000

B.

Accounts Receivable	200,000	
Sales		200,000
Cost of Goods Sold	119,000	
Work in Process		119,000

C.

Cost of Goods Sold	119,000	
Net Income	81,000	
Sales		200,000

D.

Accounts Receivable	200,000	
Sales		200,000
Cost of Goods Sold	119,000	
Finished Goods		119,000

To record sales of \$200,000:		
Accounts Receivable	200,000	
Sales		200,000

To record the cost of goods sold of \$119,000:		
Cost of Goods Sold	119,000	
Finished Goods		119,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

Topic Area: Underapplied and Overapplied Overhead

60. Bretthauer Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of July. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$51,000 and the total of the credits to the account was \$64,000. Which of the following statements is true?

- A. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$51,000.
- B. Manufacturing overhead applied to Work in Process for the month was \$64,000.**
- C. Manufacturing overhead for the month was underapplied by \$13,000.
- D. Actual manufacturing overhead incurred during the month was \$64,000.

The credits to the Manufacturing overhead account consist of manufacturing overhead applied.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

61. Arvay Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of October. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$62,000 and the total of the credits to the account was \$52,000. Which of the following statements is true?
- A. Actual manufacturing overhead incurred during the month was \$52,000.
 - B. Manufacturing overhead applied to Work in Process for the month was \$62,000.
 - C. Manufacturing overhead for the month was underapplied by \$10,000.
 - D. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$62,000.

Manufacturing Overhead	
62,000	52,000
10,000	

A debit balance in Manufacturing Overhead means that manufacturing overhead was underapplied.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

Topic Area: Using T-accounts in Job-Order Costing

62. Kaleohano Corporation has provided data concerning the Corporation's Manufacturing Overhead account for the month of July. Prior to the closing of the overapplied or underapplied balance to Cost of Goods Sold, the total of the debits to the Manufacturing Overhead account was \$62,000 and the total of the credits to the account was \$73,000. Which of the following statements is true?
- A. Manufacturing overhead for the month was underapplied by \$11,000.
 - B. Manufacturing overhead applied to Work in Process for the month was \$62,000.
 - C. Manufacturing overhead transferred from Finished Goods to Cost of Goods Sold during the month was \$73,000.
 - D. Actual manufacturing overhead for the month was \$62,000.

The debits to the Manufacturing Overhead account consist of the actual manufacturing overhead for the month.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

Topic Area: Using T-accounts in Job-Order Costing

63. The following accounts are from last year's books of Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	6,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
(g)	226,000	(h)	3,000
	223,000		

Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the amount of direct materials used for the year?

- A. \$93,000
- B. \$69,000**
- C. \$87,000
- D. \$82,000

The journal entry to record Issue of direct and indirect materials was entry (a) above:

Work in Process	69,000	
Manufacturing Overhead	18,000	
Raw Materials		87,000

Direct materials are debited to Work in Process; indirect materials are debited to Manufacturing Overhead.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

64. The following accounts are from last year's books at Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	5,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
(g)	226,000	(h)	3,000

	223,000		
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Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the amount of cost of goods manufactured for the year?

- A. \$255,000
- B. \$251,000**
- C. \$223,000
- D. \$226,000

Cost of goods manufactured is represented by the debit to Finished Goods and the credit to Work in Process (entry f) = \$251,000 cost of goods manufactured

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 1 Easy

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

65. Compute the amount of raw materials used during August if \$25,000 of raw materials were purchased during the month and the inventories were as follows:

	Balance	Balance
Inventories	August 1	August 31
Raw Materials	\$5,000	\$3,000
Work in process	\$13,000	\$16,000
Finished goods	\$25,000	\$27,000

- A. \$16,000
 B. \$19,000
 C. \$23,000
D. \$27,000

Raw materials used in production = Beginning raw materials inventory + Purchases of raw materials - Ending raw materials inventory

$$\text{Raw materials used in production} = \$5,000 + \$25,000 - \$3,000 = \$27,000$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 1 Easy

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

66. The following accounts are from last year's books at Sharp Manufacturing:

Raw Materials			
Bal	0	(b)	87,000
(a)	93,000		
	5,000		

Work In Process			
Bal	0	(f)	251,000
(b)	69,000		
(c)	82,000		
(e)	100,000		
	0		

Finished Goods			
Bal	0	(g)	226,000
(f)	251,000		
	25,000		

Manufacturing Overhead			
(b)	18,000	(e)	100,000
(c)	12,000		
(d)	67,000		
(h)	3,000		3,000

Cost of Goods Sold			
(g)	226,000	(h)	3,000
	223,000		

Sharp uses job-order costing and applies manufacturing overhead to jobs based on direct labor costs. What is the manufacturing overapplied or underapplied for the year?

- A. \$12,000 overapplied
- B. \$12,000 underapplied
- C. \$3,000 overapplied**
- D. \$3,000 underapplied

The manufacturing overhead is overapplied by \$3,000 because the manufacturing overhead applied of \$100,000 exceeds the manufacturing overhead incurred by \$3,000.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

67. Cerrone Inc. has provided the following data for the month of July. The balance in the Finished Goods inventory account at the beginning of the month was \$39,000 and at the end of the month was \$47,000. The cost of goods manufactured for the month was \$188,000. The actual manufacturing overhead cost incurred was \$71,000 and the manufacturing overhead cost applied to Work in Process was \$67,000. The adjusted cost of goods sold that would appear on the income statement for July is:

- A. \$196,000
- B. \$184,000**
- C. \$180,000
- D. \$188,000

Manufacturing overhead underapplied (overapplied) = Actual manufacturing overhead incurred
- Manufacturing overhead applied = \$71,000 - \$67,000 = \$4,000 underapplied
Adjusted cost of goods sold = Beginning finished goods inventory + Cost of goods
manufactured - Ending finished goods inventory + Manufacturing overhead underapplied
= \$39,000 + \$188,000 - \$47,000 + \$4,000
= \$184,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

68. Hudek Inc., a manufacturing Corporation, has provided the following data for the month of July. The balance in the Work in Process inventory account was \$20,000 at the beginning of the month and \$10,000 at the end of the month. During the month, the Corporation incurred direct materials cost of \$50,000 and direct labor cost of \$22,000. The actual manufacturing overhead cost incurred was \$58,000. The manufacturing overhead cost applied to Work in Process was \$56,000. The cost of goods manufactured for July was:

- A. \$138,000
- B. \$140,000
- C. \$130,000
- D. \$128,000

$$\begin{aligned} \text{Cost of goods manufactured} &= \text{Direct materials} + \text{Direct labor} + \text{Manufacturing overhead} \\ &\text{applied} + \text{Beginning work in process inventory} - \text{Ending work in process inventory} \\ &= \$50,000 + \$22,000 + \$56,000 + \$20,000 - \$10,000 \\ &= \$138,000 \end{aligned}$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

69. Stelmack Corporation, a manufacturing Corporation, has provided data concerning its operations for September. The beginning balance in the raw materials account was \$20,000 and the ending balance was \$27,000. Raw materials purchases during the month totaled \$63,000. Manufacturing overhead cost incurred during the month was \$53,000, of which \$3,000 consisted of raw materials classified as indirect materials. The direct materials cost for September was:

- A. \$56,000
- B. \$53,000**
- C. \$70,000
- D. \$63,000

$$\begin{aligned} \text{Direct materials cost} &= \text{Beginning raw materials inventory} + \text{Raw materials purchases} - \text{Ending} \\ &\text{raw materials} - \text{Indirect materials} \\ &= \$20,000 + 63,000 - \$27,000 - \$3,000 \\ &= \$53,000 \end{aligned}$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

70. Smallwood Corporation has provided the following data concerning manufacturing overhead for January:

Actual manufacturing overhead incurred	\$64,000
Manufacturing overhead applied to Work in Process	\$59,000

The Corporation's Cost of Goods Sold was \$223,000 prior to closing out its Manufacturing Overhead account. The Corporation closes out its Manufacturing Overhead account to Cost of Goods Sold. Which of the following statements is true?

- A. Manufacturing overhead for the month was overapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$228,000
- B. Manufacturing overhead for the month was underapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$218,000
- C. Manufacturing overhead for the month was underapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$228,000
- D. Manufacturing overhead for the month was overapplied by \$5,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$218,000

Actual manufacturing overhead incurred	\$64,000
Manufacturing overhead applied to Work in Process	<u>59,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$5,000</u>

Adjusted cost of goods sold = Unadjusted cost of goods sold + Underapplied manufacturing overhead - Overapplied manufacturing overhead = \$223,000 + \$5,000 - \$0 = \$228,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

71. Longstaff Inc. has provided the following data for the month of March. There were no beginning inventories; consequently, the direct materials, direct labor, and manufacturing overhead applied listed below are all for the current month.

	Work In Process	Finished Goods	Cost of Goods Sold	Total
Direct materials	\$4,290	\$12,480	\$31,200	\$47,970
Direct labor	5,260	17,160	42,900	65,320
Manufacturing overhead applied	<u>4,100</u>	<u>10,660</u>	<u>26,240</u>	<u>41,000</u>
Total	<u>\$13,650</u>	<u>\$40,300</u>	<u>\$100,340</u>	<u>\$154,290</u>

Manufacturing overhead for the month was overapplied by \$5,000.

The Corporation allocates any underapplied or overapplied manufacturing overhead among work in process, finished goods, and cost of goods sold at the end of the month on the basis of the manufacturing overhead applied during the month in those accounts.

The journal entry to record the allocation of any underapplied or overapplied manufacturing overhead for March would include the following:

- A. debit to Work in Process of \$13,650
- B. debit to Work in Process of \$500
- C. credit to Work in Process of \$13,650
- D. credit to Work in Process of \$500**

Allocating overapplied manufacturing overhead decreases the balances in the inventory and cost of goods sold accounts, resulting in credits to those accounts.

Manufacturing Overhead	5,000	
Work in Process (10% × \$5,000)		500
Finished Goods (26% × \$5,000)		1,300
Cost of Goods Sold (64% × \$5,000)		3,200

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Using T-accounts in Job-Order Costing

72. The actual manufacturing overhead incurred at Frazee Corporation during November was \$79,000, while the manufacturing overhead applied to Work in Process was \$65,000. The Corporation's Cost of Goods Sold was \$385,000 prior to closing out its Manufacturing Overhead account. The Corporation closes out its Manufacturing Overhead account to Cost of Goods Sold. Which of the following statements is true?
- A. Manufacturing overhead for the month was underapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$399,000
 - B. Manufacturing overhead for the month was overapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$371,000
 - C. Manufacturing overhead for the month was overapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$399,000
 - D. Manufacturing overhead for the month was underapplied by \$14,000; Cost of Goods Sold after closing out the Manufacturing Overhead account is \$371,000

Actual manufacturing overhead incurred	\$79,000
Manufacturing overhead applied to Work in Process	<u>65,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$14,000</u>

Adjusted cost of goods sold = Unadjusted cost of goods sold + Underapplied manufacturing overhead - Overapplied manufacturing overhead = \$385,000 + \$14,000 - \$0 = \$399,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Analyze

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

73. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The predetermined overhead rate was based on how many estimated machine-hours?

- A. 5,783
- B. 6,000**
- C. 5,900
- D. 5,842

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total machine-hours

Estimated total machine-hours = Estimated total manufacturing overhead ÷ Predetermined overhead rate

= \$60,600 ÷ \$10.10 per machine-hour

= 6,000 machine-hours

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 2 Medium

Topic Area: Job Order Costing-The Flow of Costs

74. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The applied manufacturing overhead for the year was closest to:

- A. \$58,017
- B. \$59,590**
- C. \$60,600
- D. \$58,597

Manufacturing overhead applied = Predetermined overhead rate × Actual direct labor-hours
= \$10.10 per machine-hour × 5,900 machine-hours
= \$59,590

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

75. Caber Corporation applies manufacturing overhead on the basis of machine-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$60,600. Actual manufacturing overhead for the year amounted to \$59,000 and actual machine-hours were 5,900. The company's predetermined overhead rate for the year was \$10.10 per machine-hour.

The overhead for the year was:

- A. \$1,010 underapplied
- B. \$590 overapplied**
- C. \$590 underapplied
- D. \$1,010 overapplied

Manufacturing overhead applied = Predetermined overhead rate × Actual direct labor-hours
 = \$10.10 per machine-hour × 5,900 machine-hours
 = \$59,590

Actual manufacturing overhead incurred	\$59,000
Manufacturing overhead applied to Work in Process	<u>59,590</u>
Underapplied (overapplied) manufacturing overhead	<u>(\$590)</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Using T-accounts in Job-Order Costing

76. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The predetermined overhead rate for the year was closest to:

- A. \$34.95
- B. \$34.83
- C. \$34.98
- D. \$35.10

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total direct labor-hours

= \$210,600 ÷ 6,000 direct labor-hours

= \$35.10 per direct labor-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

77. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The applied manufacturing overhead for the year was closest to:

- A. \$208,283
- B. \$209,001
- C. \$209,898
- D. \$209,180

Manufacturing overhead applied = Predetermined overhead rate × Actual direct labor-hours
= \$35.10 per direct labor-hour × 5,980 direct labor-hours
= \$209,898

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

78. Baker Corporation applies manufacturing overhead on the basis of direct labor-hours. At the beginning of the most recent year, the company based its predetermined overhead rate on total estimated overhead of \$210,600 and 6,000 estimated direct labor-hours. Actual manufacturing overhead for the year amounted to \$209,000 and actual direct labor-hours were 5,980.

The overhead for the year was:

- A. \$702 underapplied
- B. \$898 underapplied
- C. \$702 overapplied
- D. \$898 overapplied

Actual manufacturing overhead incurred	\$209,000
Manufacturing overhead applied to Work in Process	<u>209,898</u>
Underapplied (overapplied) manufacturing overhead	<u>(\$898)</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 1 Easy

Topic Area: Using T-accounts in Job-Order Costing

79. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The predetermined overhead rate is closest to:

- A. \$36.60
- B. \$36.41
- C. \$36.24
- D. \$36.05

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base
= \$139,080 ÷ 3,800 machine-hours
= \$36.60 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

80. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The applied manufacturing overhead for the year is closest to:

- A. \$136,269
- B. \$138,348**
- C. \$136,987
- D. \$137,630

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base
= \$36.60 per machine-hour × 3,780 machine-hours
= \$138,348

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

81. Acton Corporation, which applies manufacturing overhead on the basis of machine-hours, has provided the following data for its most recent year of operations.

Estimated manufacturing overhead	\$139,080
Estimated machine-hours	3,800
Actual manufacturing overhead	\$137,000
Actual machine-hours	3,780

The estimates of the manufacturing overhead and of machine-hours were made at the beginning of the year for the purpose of computing the company's predetermined overhead rate for the year.

The overhead for the year was:

- A. \$732 underapplied
- B. \$1,348 underapplied
- C. \$732 overapplied
- D. \$1,348 overapplied**

Actual manufacturing overhead incurred	\$137,000
Manufacturing overhead applied to Work in Process	138,348
Underapplied (overapplied) manufacturing overhead	<u>(\$1,348)</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 1 Easy

Topic Area: Using T-accounts in Job-Order Costing

82. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The raw materials purchased during November totaled:

- A. \$42,000
- B. \$45,000
- C. \$36,000
- D. \$39,000

Raw materials used in production = Beginning raw materials inventory + Purchases of raw materials - Ending raw materials inventory

$$\$39,000 = \$17,000 + \text{Purchases of raw materials} - \$20,000$$

$$\text{Purchases of raw materials} = \$39,000 - \$17,000 + \$20,000 = \$42,000$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

83. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The direct materials cost in the November 1 Work in Process inventory account totaled:

- A. \$6,600
- B. \$6,000
- C. \$3,600
- D. \$3,000

Beginning work in process inventory = Direct materials + Direct labor + Manufacturing overhead applied to work in process

Direct material = Beginning work in process inventory - Direct labor - Manufacturing overhead applied to work in process

Direct material = \$9,000 - (\$10 per direct labor-hour × 300 direct labor-hours) - (\$8 per direct labor-hour × 300 direct labor-hours)

Direct material = \$9,000 - \$3,000 - \$2,400 = \$3,600

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates

84. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The actual direct labor-hours worked during November totaled:

- A. 2,800 hours
- B. 3,300 hours**
- C. 3,500 hours
- D. 3,600 hours

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

Amount of the allocation base incurred = Overhead applied ÷ Predetermined overhead rate

Amount of the allocation base incurred = \$26,400 ÷ \$8 per direct labor-hour = 3,300 direct labor-hours

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates

85. Meyers Corporation had the following inventory balances at the beginning and end of November:

	November 1	November 30
Raw Materials	\$17,000	\$20,000
Finished Goods	\$50,000	\$44,000
Work in Process	\$9,000	\$11,000

During November, \$39,000 in raw materials (all direct materials) were drawn from inventory and used in production. The company's predetermined overhead rate was \$8 per direct labor-hour, and it paid its direct labor workers \$10 per hour. A total of 300 hours of direct labor time had been expended on the jobs in the beginning Work in Process inventory account. The ending Work in Process inventory account contained \$4,700 of direct materials cost. The Corporation incurred \$28,000 of actual manufacturing overhead cost during the month and applied \$26,400 in manufacturing overhead cost.

The amount of direct labor cost in the November 30 Work in Process inventory was:

- A. \$2,800
- B. \$3,300
- C. \$3,500
- D. \$6,300

Ending work in process inventory = Direct materials + Direct labor + Manufacturing overhead applied to work in process

$$\$11,000 = \$4,700 + \$10X + \$8X$$

$$\$18X = \$11,000 - \$4,700 = \$6,300$$

$$X = 350$$

$$\text{Direct labor cost} = \$10 \times 350 = \$3,500$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates

86. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The balance in the Work in Process inventory account on May 1 was:

- A. \$0
- B. \$6,700
- C. \$4,500
- D. \$8,500

Beginning balance work in process inventory = Direct Materials + Direct labor + Manufacturing overhead applied

Beginning balance work in process inventory = \$4,000 + (\$9.00 per direct labor-hour × 300 direct labor-hours) + (\$6.00 per direct labor-hour × 300 direct labor-hours) = \$4,000 + \$2,700 + \$1,800 = \$8,500

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Computation of Unit Costs

Topic Area: Computing Predetermined Overhead Rates

87. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The debit to Work in Process for the cost of direct materials used during May was:

- A. \$63,000
- B. \$61,000
- C. \$57,000
- D. \$67,000

Raw materials used in production = Beginning raw materials inventory + Purchases of raw materials - Ending raw materials inventory

Raw materials used in production = Purchases of raw materials + (Beginning raw materials inventory - Ending raw materials inventory)

Raw materials used in production = \$60,000 + \$3,000 = \$63,000

Work in Process	63,000	
Raw Materials		63,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 3 Hard

Topic Area: Computing Predetermined Overhead Rates

88. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

The debit to Work in Process for direct labor cost during May was:

- A. \$21,000
- B. \$26,100
- C. \$28,800
- D. \$31,500

Work in Process	28,800	
Wages payable (\$9 per direct-labor-hour × 3,200 direct labor-hours)		28,800

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

89. The direct labor rate for Brent Corporation is \$9.00 per hour, and manufacturing overhead is applied to products using a predetermined overhead rate of \$6.00 per direct labor-hour. During May, the company purchased \$60,000 in raw materials (all direct materials) and worked 3,200 direct labor-hours. The Raw Materials inventory (all direct materials) decreased by \$3,000 between the beginning and end of May. The Work in Process inventory on May 1 consisted of one job which had been charged with \$4,000 in direct materials and on which 300 hours of direct labor time had been worked. There was no Work in Process inventory on May 31.

If overhead was underapplied by \$2,500 during May, the actual overhead cost for the month must have been:

- A. \$16,700
- B. \$21,700**
- C. \$18,500
- D. \$23,500

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead -
Manufacturing overhead applied

\$2,500 = Actual manufacturing overhead - (\$6.00 per direct labor-hour × 3,200 direct labor-hours)

Actual manufacturing overhead = \$2,500 + (\$6.00 per direct labor-hour × 3,200 direct labor-hours)

= \$2,500 + \$19,200 = \$21,700

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Using T-accounts in Job-Order Costing

90. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

The direct materials used in production during the year totaled:

- A. \$180,000
- B. \$240,000
- C. \$130,000
- D. \$120,000

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

$$\text{Overhead applied} = \$6.00 \text{ per direct labor-hour} \times 20,000 \text{ direct labor-hours} = \$120,000$$

Work In Process		
Bal	0	
Direct materials	?	
Direct labor	250,000	
Manufacturing overhead	120,000	
	550,000	480,000

$$\$550,000 = \$0 + \text{Direct Materials} + \$250,000 + \$120,000$$

$$\text{Direct Materials} = \$550,000 - (\$0 + \$250,000 + \$120,000) = \$180,000$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

91. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

If the actual manufacturing overhead cost for the year totaled \$145,000, then overhead was:

- A. overapplied by \$25,000
- B. overapplied by \$10,000
- C. underapplied by \$25,000
- D. underapplied by \$10,000

Overhead over or underapplied

Actual manufacturing overhead incurred	\$145,000
Manufacturing overhead applied to Work in Process	<u>120,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$25,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

92. Killian Corporation began operations on January 1. The predetermined overhead rate was set at \$6.00 per direct labor-hour. Debits to Work in Process for the year totaled \$550,000. Credits to Work in Process totaled \$480,000. Analysis of the Corporation's records indicate that direct labor cost totaled \$250,000 for the year, which represents 20,000 direct labor-hours.

The Corporation's ending work in process inventory consisted of one job, Job 42. The job had been charged with \$28,000 of direct labor cost, which consisted of 2,000 actual labor-hours. The direct materials cost in Job 42 totaled:

- A. \$33,000
- B. \$42,000
- C. \$17,000
- D. \$30,000**

Computation of ending work in process inventory:

Work in Process	
550,000	480,000
70,000	

Ending work in process inventory = Direct materials + Direct labor + Manufacturing overhead applied

\$70,000 = Direct materials + \$28,000 + (\$6.00 per direct labor-hour × 2,000 actual labor-hours)

\$70,000 = Direct materials + \$28,000 + \$12,000

Direct materials = \$70,000 - (\$28,000 + \$12,000) = \$30,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Using T-accounts in Job-Order Costing

93. On March 1, Metevier Corporation had \$37,000 of raw materials on hand. During the month, the company purchased an additional \$62,000 of raw materials. During March, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000.

The journal entry to record the purchase of raw materials would include a:

- A. credit to Raw Materials of \$62,000
- B. credit to Raw Materials of \$99,000
- C. debit to Raw Materials of \$99,000
- D. debit to Raw Materials of \$62,000

Raw Materials	\$62,000	
Accounts Payable		\$62,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

94. On March 1, Metevier Corporation had \$37,000 of raw materials on hand. During the month, the company purchased an additional \$62,000 of raw materials. During March, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000.

The journal entry to record the requisition from the storeroom would include a:

- A. debit to Work in Process of \$69,000
- B. debit to Work in Process of \$63,000**
- C. debit to Raw Materials of \$69,000
- D. credit to Manufacturing Overhead of \$6,000

Work in Process	\$63,000	
Manufacturing Overhead	\$6,000	
Raw Materials		\$69,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

95. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the workers who carve the wood for the instruments have earned their pay?

- A. Direct Labor
- B. Work in Process**
- C. Manufacturing Overhead
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

Incurring direct labor cost:

Work in Process	XXX	
Salaries and Wages Payable		XXX

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

96. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the production manager has earned her salary?

- A. Direct Labor
- B. Work in Process
- C. Manufacturing Overhead**
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

Incurring indirect labor cost:

Manufacturing Overhead	XXX	
Salaries and Wages Payable		XXX

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

97. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What account should Chelm debit when the president of the company has earned her salary?

- A. Direct Labor
- B. Work in Process
- C. Manufacturing Overhead
- D. Salaries and Wages Receivable
- E. Salaries and Wages Expense

Salaries and Wages Expense	XXX	
Salaries and Wages Payable		XXX

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

98. Chelm Music Corporation manufactures violins, violas, cellos, and fiddles and uses a job-order costing system.

What is one of the accounts that Chelm should credit when goods are sold?

- A. Finished Goods
- B. Work in Process
- C. Cost of Goods Sold
- D. Manufacturing Overhead
- E. Cost of Goods Manufactured

Cost of Goods Sold	XXX	
Finished Goods		XXX

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

99. During February, Irving Corporation incurred \$65,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$60,000.

The journal entry to record the incurrence of the actual Manufacturing Overhead costs would include a:

- A. debit to Manufacturing Overhead of \$65,000
- B. credit to Manufacturing Overhead of \$65,000
- C. credit to Work in Process of \$60,000
- D. debit to Work in Process of \$60,000

Manufacturing Overhead	\$65,000	
Accounts Payable, Cash, or other Asset accounts		\$65,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

100. During February, Irving Corporation incurred \$65,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$60,000.

The journal entry to record the application of Manufacturing Overhead to Work in Process would include a:

- A. debit to Work in Process of \$65,000
- B. credit to Work in Process of \$65,000
- C. credit to Manufacturing Overhead of \$60,000
- D. debit to Manufacturing Overhead of \$60,000

Work in Process	\$60,000	
Manufacturing Overhead		\$60,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

101. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits entered in the Raw Materials account during the month of August total:

- A. \$91,000
- B. \$69,000
- C. \$35,000
- D. \$56,000

Raw Materials	\$56,000	
Accounts Payable		\$56,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

102. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Raw Materials account for the month of August total:

- A. \$35,000
- B. \$91,000
- C. \$56,000
- D. \$69,000

Work in Process	\$63,000	
Manufacturing Overhead	\$6,000	
Raw Materials		\$69,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

103. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits to the Work in Process account as a consequence of the raw materials transactions in August total:

- A. \$56,000
- B. \$0
- C. \$63,000
- D. \$69,000

Work in Process	\$63,000	
Manufacturing Overhead	\$6,000	
Raw Materials		\$69,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

104. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Work in Process account as a consequence of the raw materials transactions in August total:

- A. \$56,000
- B. \$63,000
- C. \$0
- D. \$69,000

There were no credits to the Work in Process account in August, only debits.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

105. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The debits to the Manufacturing Overhead account as a consequence of the raw materials transactions in August total:

- A. \$6,000
- B. \$69,000
- C. \$0
- D. \$63,000

Work in Process	\$63,000	
Manufacturing Overhead	\$6,000	
Raw Materials		\$69,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

106. On August 1, Shead Corporation had \$35,000 of raw materials on hand. During the month, the company purchased an additional \$56,000 of raw materials. During August, \$69,000 of raw materials were requisitioned from the storeroom for use in production. These raw materials included both direct and indirect materials. The indirect materials totaled \$6,000. Prepare journal entries to record these events. Use those journal entries to answer the following questions:

The credits to the Manufacturing Overhead account as a consequence of the raw materials transactions in August total:

- A. \$0
- B. \$63,000
- C. \$69,000
- D. \$6,000

There were no credits to the Manufacturing overhead account in August, only debits.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

107. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The balance on May 1 in the Raw Materials inventory account was:

- A. \$11,000
- B. \$5,000**
- C. \$7,000
- D. \$9,000

Raw Materials				
Bal		X	Used in production	35,000
Purchases	38,000			
	8,000			

$$\$8,000 = X + \$38,000 - \$35,000$$

$$X = \$8,000 - (\$38,000 - \$35,000) = \$5,000$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

108. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The amount of direct materials cost in the May 31 Work in Process inventory account was:

- A. \$7,600
- B. \$2,000
- C. \$6,300
- D.** \$4,300

Ending work in process inventory = Direct materials + Direct labor + Manufacturing overhead applied

$$\$12,000 = \text{Direct materials} + \$4,400 + (0.75 \times \$4,400)$$

$$\text{Direct materials} = \$12,000 - \$4,400 - (0.75 \times \$4,400) = \$4,300$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 3 Hard

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

109. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The entry to dispose of the under or overapplied manufacturing overhead cost for the month

would include:

- A. a debit of \$2,000 to the Manufacturing Overhead account.
- B. a credit of \$2,500 to the Manufacturing Overhead account.
- C. a debit of \$2,000 to Cost of Goods Sold.
- D. a credit of \$2,500 to Cost of Goods Sold.

Overhead over or underapplied

Actual manufacturing overhead incurred	<u>\$24,500</u>
Manufacturing overhead applied to Work in Process:	
Predetermined overhead rate (a)	0.75
Actual total amount of the allocation base (b)	<u>\$30,000</u>
Manufacturing overhead applied (a) × (b)	<u>\$22,500</u>
Underapplied (overapplied) manufacturing overhead	<u>\$2,000</u>

Closing out balance in Manufacturing Overhead to COGS:

Underapplied overhead:

Cost of Goods Sold	\$2,000	
Manufacturing Overhead		\$2,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

110. Dillon Corporation applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any under or overapplied manufacturing overhead cost is closed out to Cost of Goods Sold at the end of the month. During May, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$38,000
Used in production	\$35,000
Labor:	
Direct labor-hours worked during the month	3,150
Direct labor cost incurred	\$30,000
Manufacturing overhead cost incurred (total)	\$24,500
Inventories:	
Raw materials (all direct), May 31	\$8,000
Work in process, May 1	\$9,000
Work in process, May 31	\$12,000*
*Contains \$4,400 in direct labor cost.	

The Cost of Goods Manufactured for May was:

- A. \$84,500
- B. \$95,000
- C. \$75,500
- D. \$81,500

Cost of Goods Manufactured

Direct materials	\$35,000
Direct labor	30,000
Manufacturing overhead cost applied to work in process	<u>22,500</u>

(0.75 × \$30,000)	
Total manufacturing costs	87,500
Add: Beginning work in process inventory	<u>9,000</u>
	96,500
Deduct: Ending work in process inventory	<u>12,000</u>
Cost of goods manufactured	<u>\$84,500</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

111. Echo Corporation uses a job-order costing system and applies overhead to jobs using a predetermined overhead rate. During the year the company's Finished Goods inventory account was debited for \$360,000 and credited for \$338,800. The ending balance in the Finished Goods inventory account was \$36,600. At the end of the year, manufacturing overhead was overapplied by \$15,900.

The balance in the Finished Goods inventory account at the beginning of the year was:

- A. \$15,900
- B. \$15,400**
- C. \$21,200
- D. \$36,600

Ending finished goods inventory = Beginning finished goods inventory + Debits - Credits

$$\$36,600 = \text{Beginning finished goods inventory} + \$360,000 - \$338,800$$

$$\text{Beginning finished goods inventory} = \$36,600 - \$360,000 + \$338,800 = \$15,400$$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to

record costs.

Level of Difficulty: 2 Medium

Topic Area: Computing Predetermined Overhead Rates

112. Echo Corporation uses a job-order costing system and applies overhead to jobs using a predetermined overhead rate. During the year the company's Finished Goods inventory account was debited for \$360,000 and credited for \$338,800. The ending balance in the Finished Goods inventory account was \$36,600. At the end of the year, manufacturing overhead was overapplied by \$15,900.

If the applied manufacturing overhead was \$169,300, the actual manufacturing overhead cost for the year was:

- A. \$168,800
- B. \$153,400**
- C. \$190,000
- D. \$185,200

Underapplied (overapplied) manufacturing overhead = Actual manufacturing overhead -
Manufacturing overhead applied

-\$15,900 = Actual manufacturing overhead - \$169,300

Actual manufacturing overhead = \$169,300 - \$15,900 = \$153,400

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Accessibility: Keyboard Navigation

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

113. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
22,900			

The Cost of Goods Manufactured was:

- A. \$22,900
- B. \$26,300**
- C. \$6,400
- D. \$49,200

Work in Process			
Beg Bal	4,600	COGM	26,300
Direct materials	7,400		
Direct labor	8,000		
Manufacturing overhead applied	6,800		
Finished Goods			
Beg Bal	1,900		22,900
COGM	26,300		

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

114. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
22,900			

The direct labor cost was:

- A. \$8,000
- B. \$12,300
- C. \$12,600
- D. \$11,000

The key is to recognize that the 7,400 debit entry in the Work in Process account represents direct materials. The journal entry would have been:

Work in Process	7,400	
Manufacturing Overhead	2,600	
Raw Materials		10,000

The other debit entry in the Work in Process account in the amount of \$6,800 is manufacturing overhead applied because there is a corresponding credit entry for the same amount in the account Manufacturing Overhead.

Work in Process			
Beg Bal	4,600	COGM	26,300
Direct materials	7,400		
Direct labor	8,000		
Manufacturing overhead applied	6,800		

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 3 Hard

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

115. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
	22,900		

The direct materials cost was:

- A. \$8,000

- B. \$10,000
- C. \$7,400
- D. \$4,600

The key is to recognize that the 7,400 debit entry in the Work in Process account represents direct materials. The journal entry would have been:

Work in Process	7,400	
Manufacturing Overhead	2,600	
Raw Materials		10,000

The direct materials is the \$7,400 debit to Work in Process.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 3 Hard

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

116. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials		
Beg Bal	4,700	10,000
	6,900	

Work in Process		
Beg Bal	4,600	26,300
	7,400	
	8,000	
	6,800	

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

The manufacturing overhead applied was:

- A. \$1,900
- B. \$6,800**
- C. \$12,900
- D. \$3,000

The manufacturing overhead applied is the credit entry of \$6,800 in the Manufacturing Overhead account.

Manufacturing Overhead			
	2,600	Manufacturing overhead applied	6,800
	3,000		

	1,900		
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AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

117. The following partially completed T-accounts summarize transactions for Farwest Corporation during the year:

Raw Materials			
Beg Bal	4,700		10,000
	6,900		

Work in Process			
Beg Bal	4,600		26,300
	7,400		
	8,000		
	6,800		

Finished Goods			
Beg Bal		1,900	22,900
		26,300	

Manufacturing Overhead			
		2,600	6,800
		3,000	
		1,900	

Wages & Salaries Payable			
	12,300	Beg Bal	1,400
			11,000

Cost of Goods Sold			
	22,900		

The manufacturing overhead was:

- A. \$1,900 underapplied
- B. \$700 underapplied**
- C. \$400 overapplied
- D. \$3,200 overapplied

Manufacturing Overhead		
	2,600	6,800
	3,000	
	1,900	
Underapplied manufacturing overhead	700	

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

118. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The balance in the raw materials inventory account on May 30 was:

- A. \$33,500
- B. \$2,000**
- C. \$40,000
- D. \$6,500

Raw materials used in production = Beginning raw materials inventory + Purchases of raw materials - Ending raw materials inventory

Ending raw materials inventory = Beginning raw materials inventory + Purchases of raw materials - Raw materials used in production

Ending raw materials inventory = $\$8,500 + \$42,000 - \$48,500 = \$2,000$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 1 Easy

Topic Area: Underapplied and Overapplied Overhead

119. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The cost of goods manufactured for May was:

- A. \$109,670
- B. \$124,620
- C. \$143,300
- D. \$126,820

Beginning work in process inventory = \$3,400 + \$4,640 + \$9,200 = \$17,240

Direct materials used in production	\$48,500
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Direct labor	25,520
Manufacturing overhead (\$23.00 per direct labor-hour × 2,200 direct labor-hours)	<u>50,600</u>
Total manufacturing costs	124,620
Add: Beginning work in process	<u>17,240</u>
	141,860
Deduct: Ending work in process	<u>32,190</u>
Cost of goods manufactured	<u>\$109,670</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

120. Dapper Corporation had only one job in process on May 1. The job had been charged with \$3,400 of direct materials, \$4,640 of direct labor, and \$9,200 of manufacturing overhead cost. The company assigns overhead cost to jobs using the predetermined overhead rate of \$23.00 per direct labor-hour.

During May, the following activity was recorded:

Raw materials (all direct materials):	
Beginning balance	\$8,500
Purchased during the month	\$42,000
Used in production	\$48,500
Labor:	
Direct labor-hours worked during the month	2,200
Direct labor cost incurred	\$25,520
Actual manufacturing overhead costs incurred	\$52,800
Inventories:	
Raw materials, May 30	?
Work in process, May 30	\$32,190

Work in process inventory on May 30 contains \$7,540 of direct labor cost. Raw materials consist solely of items that are classified as direct materials.

The entry to dispose of the underapplied or overapplied manufacturing overhead cost for the month would include a:

- A. debit of \$2,200 to Manufacturing Overhead.
- B. debit of \$14,950 to Manufacturing Overhead.
- C. credit of \$14,950 to Manufacturing Overhead.
- D.** credit of \$2,200 to Manufacturing Overhead.

Actual manufacturing overhead incurred	\$52,800
Manufacturing overhead applied to	<u>50,600</u>

Work in Process (\$23.00 per direct labor-hour × 2,200 direct labor-hours)		
Underapplied (overapplied) manufacturing overhead		<u>\$2,200</u>
Cost of Goods Sold	\$2,200	
Manufacturing Overhead		\$2,200

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Using T-accounts in Job-Order Costing

121. Messina Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The direct materials cost for August is:

- A. \$73,000
- B. \$69,000
- C. \$81,000
- D. \$57,000

Raw materials inventory, beginning	\$36,000
Add: Purchases of raw materials	<u>69,000</u>
Total raw materials available	105,000
Deduct: Raw materials inventory, ending	<u>24,000</u>
Raw materials used in production	81,000
Deduct: Indirect materials included in manufacturing overhead	<u>8,000</u>
Direct materials	<u>\$73,000</u>

AACSB: Analytical Thinking
AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

122. Messina Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The cost of goods manufactured for August is:

- A. \$227,000
- B. \$229,000**
- C. \$219,000
- D. \$217,000

Direct materials:		
Raw materials inventory, beginning	\$36,000	
Add: Purchases of raw materials	<u>69,000</u>	
Total raw materials	105,000	

available		
Deduct: Raw materials inventory, ending	<u>24,000</u>	
Raw materials used in production	81,000	
Deduct: Indirect materials included in manufacturing overhead	<u>8,000</u>	\$73,000
Direct labor		94,000
Manufacturing overhead cost applied to work in process		<u>56,000</u>
Total manufacturing costs		223,000
Add: Beginning work in process		<u>23,000</u>
		246,000
Deduct: Ending work in process		<u>17,000</u>
Cost of goods manufactured		<u>\$229,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium
Topic Area: Underapplied and Overapplied Overhead

123. Messina Corporation reported the following data for the month of August:

Inventories:	Beginning	Ending
Raw materials	\$36,000	\$24,000
Work in process	\$23,000	\$17,000
Finished goods	\$37,000	\$55,000
Additional information:		
Raw materials purchases	\$69,000	
Direct labor cost	\$94,000	
Manufacturing overhead cost incurred	\$54,000	
Indirect materials included in manufacturing overhead cost incurred	\$8,000	
Manufacturing overhead cost applied to Work in Process	\$56,000	

The adjusted cost of goods sold that appears on the income statement for August is:

- A. \$229,000
- B. \$211,000
- C. \$209,000
- D. \$247,000

Direct materials:		
Raw materials inventory, beginning	\$36,000	
Add: Purchases of raw materials	<u>69,000</u>	
Total raw materials available	105,000	
Deduct: Raw materials inventory, ending	<u>24,000</u>	
Raw materials used in production	81,000	
Deduct: Indirect materials included in manufacturing overhead	<u>8,000</u>	\$73,000
Direct labor		94,000
Manufacturing overhead cost applied to work in process		<u>56,000</u>
Total manufacturing costs		223,000

Add: Beginning work in process		<u>23,000</u>
		246,000
Deduct: Ending work in process		<u>17,000</u>
Cost of goods manufactured		<u>\$229,000</u>

Overhead over or underapplied

Actual manufacturing overhead incurred		\$54,000
Manufacturing overhead applied to Work in Process		<u>56,000</u>
Underapplied (overapplied) manufacturing overhead		<u>(\$2,000)</u>
Finished goods inventory, beginning	\$37,000	
Add: Cost of goods manufactured	<u>229,000</u>	
Cost of goods available for sale	266,000	
Deduct: Finished goods inventory, ending	<u>55,000</u>	
Unadjusted cost of goods sold	211,000	
Deduct: Overapplied overhead	<u>2,000</u>	
Adjusted cost of goods sold	<u>\$209,000</u>	

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

Topic Area: Using T-accounts in Job-Order Costing

124. Tondre Inc. has provided the following data for the month of July:

Inventories:	Beginning	Ending
Work in process	\$23,000	\$21,000
Finished goods	\$26,000	\$35,000
Additional information:		
Direct materials	\$56,000	
Direct labor cost	\$91,000	
Manufacturing overhead cost incurred	\$58,000	
Manufacturing overhead cost applied to Work in Process	\$61,000	

The cost of goods manufactured for July is:

- A. \$210,000
- B. \$205,000
- C. \$208,000
- D. \$207,000

Direct materials	\$56,000
Direct labor	91,000
Manufacturing overhead	<u>61,000</u>
Total manufacturing costs	208,000
Add: Beginning work in process	<u>23,000</u>
	231,000
Deduct: Ending work in process	<u>21,000</u>
Cost of goods manufactured	<u>\$210,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium
Topic Area: Underapplied and Overapplied Overhead

125. Tondre Inc. has provided the following data for the month of July:

Inventories:	Beginning	Ending
Work in process	\$23,000	\$21,000
Finished goods	\$26,000	\$35,000
Additional information:		
Direct materials	\$56,000	
Direct labor cost	\$91,000	
Manufacturing overhead cost incurred	\$58,000	
Manufacturing overhead cost applied to Work in Process	\$61,000	

The adjusted cost of goods sold that appears on the income statement for July is:

- A. \$201,000
- B. \$198,000**
- C. \$219,000
- D. \$210,000

Direct materials	\$56,000
Direct labor	91,000
Manufacturing overhead	<u>61,000</u>
Total manufacturing costs	208,000
Add: Beginning work in process	<u>23,000</u>
	231,000
Deduct: Ending work in process	<u>21,000</u>
Cost of goods manufactured	<u>\$210,000</u>

Overhead over or underapplied

Actual manufacturing overhead incurred		\$58,000
Manufacturing overhead applied to Work in Process		<u>61,000</u>
Underapplied (overapplied) manufacturing overhead		<u>(\$3,000)</u>

Finished goods inventory, beginning	\$26,000	
Add: Cost of goods manufactured	<u>210,000</u>	
Cost of goods available for sale	236,000	
Deduct: Finished goods inventory, ending	<u>35,000</u>	
Unadjusted cost of goods sold	201,000	
Deduct: Overapplied overhead	<u>3,000</u>	
Adjusted cost of goods sold	<u>\$198,000</u>	

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead

Topic Area: Using T-accounts in Job-Order Costing

Essay Questions

126. Christoffese Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:		
Estimated machine-hours	38,000	
Estimated variable manufacturing overhead	\$3.33	per machine-hour
Estimated total fixed manufacturing overhead	\$548,720	
Actual machine-hours for the year	33,700	

Required:

Compute the company's predetermined overhead rate for the recently completed year.

Estimated total manufacturing overhead = \$548,720 + (\$3.33 per machine-hour × 38,000 machine-hours) = \$675,260

Predetermined overhead rate = \$675,260 ÷ 38,000 machine-hours = \$17.77 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

127. Cacioppo Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 66,000 labor-hours. The estimated variable manufacturing overhead was \$7.45 per labor-hour and the estimated total fixed manufacturing overhead was \$1,760,220. The actual labor-hours for the year turned out to be 63,800 labor-hours.

Required:

Compute the company's predetermined overhead rate for the recently completed year.

Estimated total manufacturing overhead = \$1,760,220 + (\$7.45 per machine-hour × 66,000 machine-hours) = \$2,251,920

Predetermined overhead rate = \$2,251,920 ÷ 66,000 machine-hours = \$34.12 per labor-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

128. Sigel Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the machine-hours for the upcoming year at 52,000 machine-hours. The estimated variable manufacturing overhead was \$3.40 per machine-hour and the estimated total fixed manufacturing overhead was \$624,520.

Required:

Compute the company's predetermined overhead rate.

Estimated total manufacturing overhead = \$624,520 + (\$3.40 per machine-hour × 52,000 machine-hours) = \$801,320

Predetermined overhead rate = \$801,320 ÷ 52,000 machine-hours = \$15.41 per machine-hour

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

129. Huckleby Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	24,000	
Estimated variable manufacturing overhead	\$3.89	per machine-hour
Estimated total fixed manufacturing overhead	\$535,200	

Required:

Compute the company's predetermined overhead rate.

Estimated total manufacturing overhead = $\$535,200 + (\$3.89 \text{ per machine-hour} \times 24,000 \text{ machine-hours}) = \$628,560$

Predetermined overhead rate = $\$628,560 \div 24,000 \text{ machine-hours} = \$26.19 \text{ per machine-hour}$

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Level of Difficulty: 1 Easy

Topic Area: Job Order Costing-The Flow of Costs

130. Quark Spy Equipment manufactures espionage equipment. Quark uses a job-order costing system and applies overhead to jobs on the basis of direct labor-hours. For the current year, Quark estimated that it would work 100,000 direct labor-hours and incur \$20,000,000 of manufacturing overhead cost. The following summarized information relates to January of the current year. The raw materials purchased include both direct and indirect materials.

Raw materials purchased on account	\$1,412,000
Direct materials requisitioned into production	\$1,299,500
Indirect materials requisitioned into production	\$98,000
Direct labor cost (7,900 hours @ \$40 per hour)	\$316,000
Indirect labor cost (10,200 hours @ \$16 per hour)	\$163,200
Depreciation on the factory building	\$190,500
Depreciation on the factory equipment	\$890,700
Utilities for the factory	\$79,600
Cost of jobs finished	\$2,494,200
Cost of jobs sold	\$2,380,000
Sales (all on account)	\$3,570,000

Required:

Prepare journal entries to record Quark's transactions for the month of January. Do not close out the manufacturing overhead account.

Raw Materials	1,412,000	
Accounts Payable		1,412,000
Work in Process	1,299,500	
Raw Materials		1,299,500
Manufacturing Overhead	98,000	
Raw Materials		98,000
Work in Process	316,000	
Salaries and Wages Payable		316,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$20,000,000 ÷ 100,000 direct labor-hours = \$200 per direct labor-hour

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

Overhead applied = \$200 per direct labor-hour × 7,900 direct labor-hours = \$1,580,000

Work in Process	1,580,000	
Manufacturing Overhead		1,580,000
Manufacturing Overhead	163,200	
Salaries and Wages Payable		163,200
Manufacturing Overhead	1,160,800	
Accumulated Depreciation, Building		190,500
Accumulated Depreciation, Equipment		890,700
Utilities Payable (or Cash)		79,600
Finished Goods	2,494,200	
Work in Process		2,494,200
Cost of Goods Sold	2,380,000	
Finished Goods		2,380,000
Accounts Receivable	3,570,000	
Sales		3,570,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates
Topic Area: Job Order Costing-The Flow of Costs

131. Allenton Company is a manufacturing firm that uses job-order costing. At the beginning of the year, the company's inventory balances were as follows:

Raw materials	\$26,000
Work in process	\$47,000
Finished goods	\$133,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 31,000 machine-hours and incur \$248,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- a. Raw materials were purchased, \$411,000.
- b. Raw materials were requisitioned for use in production, \$409,000 (\$388,000 direct and \$21,000 indirect).
- c. The following employee costs were incurred: direct labor, \$145,000; indirect labor, \$61,000; and administrative salaries, \$190,000.
- d. Selling costs, \$148,000.
- e. Factory utility costs, \$12,000.
- f. Depreciation for the year was \$121,000 of which \$114,000 is related to factory operations and \$7,000 is related to selling, general, and administrative activities.
- g. Manufacturing overhead was applied to jobs. The actual level of activity for the year was 29,000 machine-hours.
- h. The cost of goods manufactured for the year was \$783,000.
- i. Sales for the year totaled \$1,107,000 and the costs on the job cost sheets of the goods that were sold totaled \$768,000.
- j. The balance in the Manufacturing Overhead account was closed out to Cost of Goods Sold.

Required:

Prepare the appropriate journal entry for each of the items above (a. through j.). You can assume that all transactions with employees, customers, and suppliers were conducted in cash.

a.	Raw Materials Inventory	411,000	
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	Cash		411,000
b.	Work in Process Inventory	388,000	
	Manufacturing Overhead	21,000	
	Raw Materials Inventory		409,000
c.	Work in Process Inventory	145,000	
	Manufacturing Overhead	61,000	
	Administrative Salary Expense	190,000	
	Cash		396,000
d.	Selling Expenses	148,000	
	Cash		148,000
e.	Manufacturing Overhead	12,000	
	Cash		12,000
f.	Manufacturing Overhead	114,000	
	Depreciation Expense	7,000	
	Accumulated Depreciation		121,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$248,000 ÷ 31,000 machine-hours = \$8 per machine-hour

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

Overhead applied = \$8 per machine-hour × 29,000 machine-hours = \$232,000

g.	Work in Process	232,000	
	Manufacturing Overhead		232,000
h.	Finished Goods	783,000	

	Work in Process		783,000
i.	Cash	1,107,000	
	Sales		1,107,000
	Cost of Goods Sold	768,000	
	Finished Goods		768,000
	Manufacturing Overhead		
(b)	21,000	(g)	232,000
(c)	61,000		
(e)	12,000		
(f)	<u>114,000</u>		<u> </u>
	<u>208,000</u>		<u>232,000</u>
			24,000
j.	Manufacturing Overhead	24,000	
	Cost of Goods Sold		24,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

132. Bakerston Company is a manufacturing firm that uses job-order costing. The company's inventory balances were as follows at the beginning and end of the year:

	Beginning Balance	Ending Balance
Raw materials	\$14,000	\$22,000
Work in process	\$27,000	\$9,000
Finished goods	\$62,000	\$77,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 33,000 machine-hours and incur \$231,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- Raw materials were purchased, \$315,000.
- Raw materials were requisitioned for use in production, \$307,000 (\$281,000 direct and \$26,000 indirect).
- The following employee costs were incurred: direct labor, \$377,000; indirect labor, \$96,000; and administrative salaries, \$172,000.
- Selling costs, \$147,000.
- Factory utility costs, \$10,000.
- Depreciation for the year was \$127,000 of which \$120,000 is related to factory operations and \$7,000 is related to selling, general, and administrative activities.
- Manufacturing overhead was applied to jobs. The actual level of activity for the year was 34,000 machine-hours.
- Sales for the year totaled \$1,253,000.

Required:

- a. Prepare a schedule of cost of goods manufactured.
- b. Was the overhead underapplied or overapplied? By how much?
- c. Prepare an income statement for the year. The company closes any underapplied or overapplied overhead to Cost of Goods Sold.

- a. Schedule of cost of goods manufactured

Estimated total manufacturing overhead (a)	\$231,000
Estimated total machine-hours (b)	33,000
Predetermined overhead rate (a) ÷ (b)	\$7.00
Actual total machine-hours (a)	34,000
Predetermined overhead rate (b)	\$7.00
Overhead applied (a) × (b)	\$238,000

Cost of Goods Manufactured

Direct materials:		
Beginning raw materials inventory	\$14,000	
Add: Purchases of raw materials	<u>315,000</u>	
Total raw materials available	329,000	
Deduct: Ending raw materials inventory	<u>22,000</u>	
Raw materials used in production	307,000	
Deduct: Indirect materials included in manufacturing overhead	<u>26,000</u>	\$281,000
Direct labor		377,000
Manufacturing overhead cost applied to work in process		<u>238,000</u>
Total manufacturing costs		896,000

Add: Beginning work in process inventory		<u>27,000</u>
		923,000
Deduct: Ending work in process inventory		<u>9,000</u>
Cost of goods manufactured		<u>\$914,000</u>

b. Overhead underapplied or overapplied

Actual manufacturing overhead cost incurred:	
Indirect materials	\$26,000
Indirect labor	96,000
Factory utilities	10,000
Factory depreciation	<u>120,000</u>
Manufacturing overhead cost incurred	252,000
Manufacturing overhead applied	<u>238,000</u>
Underapplied overhead	<u>\$14,000</u>

c. Income Statement

Cost of Goods Sold:	
Beginning finished goods inventory	\$62,000
Add: Cost of goods manufactured	<u>914,000</u>
Cost of goods available for sale	976,000
Deduct: Ending finished goods inventory	<u>77,000</u>

Unadjusted cost of goods sold	899,000
Add: Underapplied overhead	<u>14,000</u>
Adjusted cost of goods sold	<u>\$913,000</u>

Income Statement:

Sales		\$1,253,000
Cost of goods sold (adjusted)		<u>913,000</u>
Gross margin		340,000
Selling and administrative expenses:		
Administrative salaries	\$172,000	
Selling costs	147,000	
Depreciation	<u>7,000</u>	<u>326,000</u>
Net operating income		<u>\$14,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Underapplied and Overapplied Overhead

Topic Area: Using T-accounts in Job-Order Costing

133. Parker Company uses a job-order costing system and applies manufacturing overhead to jobs using a predetermined overhead rate based on direct labor-hours. Last year manufacturing overhead and direct labor-hours were estimated at \$50,000 and 20,000 hours, respectively, for the year. In June, Job #461 was completed. Materials costs on the job totaled \$4,000 and labor costs totaled \$1,500 at \$5 per hour. At the end of the year, it was determined that the company worked 24,000 direct labor-hours for the year and incurred \$54,000 in actual manufacturing overhead costs.

Required:

- a. Job #461 contained 100 units. Determine the unit product cost that would appear on the job cost sheet.
- b. Determine the underapplied or overapplied overhead for the year.

a.

Direct materials	\$4,000
Direct labor	1,500
Manufacturing overhead (300 DLHs* × \$2.50 per DLH**)	<u>750</u>
Total product cost	<u>\$6,250</u>
Unit product cost (\$6,250 ÷ 100 units)	\$62.50

* Actual direct labor-hours = $\$1,500 \div \$5.00 \text{ per DLH} = 300 \text{ DLHs}$

**Predetermined overhead rate = $\$50,000 \div 20,000 \text{ DLHs} = \2.50 per DLH

b.

Actual manufacturing overhead incurred	\$54,000	
Manufacturing overhead applied to Work in Process (\$2.50 per DLH × 24,000 DLHs)	60,000	
Underapplied (overapplied) manufacturing overhead	\$(6,000)	Overapplied

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the

balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Using T-accounts in Job-Order Costing

134. Hacken Company has a job-order costing system. The company applies manufacturing overhead to jobs using a predetermined overhead rate based on direct labor cost. The information below has been taken from the cost records of Hacken Company for the past year:

Direct materials used in production	\$1,250
Total manufacturing costs charged to production during the year (includes direct materials, direct labor, and applied manufacturing overhead)	\$6,050
Manufacturing overhead applied	\$2,800
Selling and administrative expenses	\$1,000
Inventories:	
Direct materials, January 1	\$130
Direct materials, December 31	\$80
Work in process, January 1	\$250
Work in process, December 31	\$400
Finished goods, January 1	\$300
Finished goods, December 31	\$200

Required:

- a. Compute the cost of direct materials purchased during the year.
- b. Compute the predetermined overhead rate that was used during the past year.
- c. Compute the Cost of Goods Manufactured for the past year.
- d. Compute the unadjusted Cost of Goods Sold for the past year.

a. Direct materials used in production = Beginning direct materials inventory + Purchases of direct materials - Ending direct materials inventory

Purchases of direct materials = Direct materials used in production + Ending direct materials inventory - Beginning direct materials inventory

$$\text{Purchases of direct materials} = \$1,250 + \$80 - \$130 = \$1,200$$

b. Total manufacturing costs = Direct materials + Direct labor + Manufacturing overhead applied

$$\$6,050 = \$1,250 + \text{Direct labor} + \$2,800$$

Direct labor = \$6,050 - \$1,250 - \$2,800 = \$2,000

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

\$2,800 = Predetermined overhead rate × \$2,000

Predetermined overhead rate = \$2,800 ÷ \$2,000 = 140% of direct labor cost

c. Cost of Goods Manufactured

Total manufacturing costs	\$6,050
Add: Beginning work in process inventory	<u>250</u>
	<u>6,300</u>
Deduct: Ending work in process inventory	<u>400</u>
Cost of goods manufactured	<u>\$5,900</u>

d. Cost of Goods Sold

Beginning finished goods inventory	\$300
Add: Cost of goods manufactured	<u>5,900</u>
Cost of goods available for sale	6,200
Deduct: Ending finished goods inventory	<u>200</u>
Unadjusted cost of goods sold	<u>\$6,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-01 Compute a predetermined overhead rate.

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 3 Hard

Topic Area: Job Order Costing-The Flow of Costs

Topic Area: Underapplied and Overapplied Overhead

135. Job 231 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$52,260	
Direct labor-hours	1,326	labor-hours
Direct labor wage rate	\$10	per labor-hour
Machine-hours	819	machine-hours
Number of units completed	3,900	units

The company applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$11 per machine-hour.

Required:

Compute the unit product cost that would appear on the job cost sheet for this job.

Cost Summary

Direct materials	\$52,260
Direct labor (\$10 per DLH × 1,326 DLHs)	13,260
Manufacturing overhead (\$11 per MH × 819 MHs)	<u>9,009</u>
Total product cost	\$74,529
Unit product cost	\$19.11

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Computation of Unit Costs

136. Job 397 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$59,400	
Direct labor-hours	1,254	DLHs
Direct labor wage rate	\$11	per DLH
Number of units completed	3,300	units

The company applies manufacturing overhead on the basis of direct labor-hours. The predetermined overhead rate is \$37 per direct labor-hour.

Required:

Compute the unit product cost that would appear on the job cost sheet for this job.

Cost Summary

Direct materials	\$59,400
Direct labor \$11 per DLH × 1,254 DLHs	13,794
Manufacturing overhead \$37 per DLH × 1,254 DLHs	<u>46,398</u>
Total product cost	\$119,592
Unit product cost	\$36.24

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-03 Compute the total cost and average cost per unit of a job.

Level of Difficulty: 1 Easy

Topic Area: Applying Manufacturing Overhead

Topic Area: Computation of Unit Costs

137. The Commonwealth Company uses a job-order costing system and applies manufacturing overhead cost to jobs using a predetermined overhead rate based on the cost of materials used in production. At the beginning of the year, the following estimates were made as a basis for computing the predetermined overhead rate: manufacturing overhead cost, \$186,000; direct materials cost, \$155,000. The following transactions took place during the year (all purchases and services were acquired on account):

- a. Raw materials purchased, \$96,000.
- b. Raw materials requisitioned for use in production (all direct materials), \$88,000.
- c. Utility bills incurred in the factory, \$17,000.
- d. Costs for salaries and wages incurred as follows:

Direct labor	\$174,000
Indirect labor	\$70,000
Selling and administrative salaries	\$124,000

- e. Maintenance costs incurred in the factory, \$12,000.
- f. Advertising costs incurred, \$98,000.
- g. Depreciation recorded for the year, \$75,000 (75 percent relates to factory assets and the remainder relates to selling, general, and administrative assets).
- h. Rental cost incurred on buildings, \$80,000 (80 percent of the space is occupied by the factory, and 20 percent is occupied by sales and administration).
- i. Miscellaneous selling, general, and administrative costs incurred, \$12,000.
- j. Manufacturing overhead cost was applied to jobs.
- k. Cost of goods manufactured for the year, \$480,000.
- l. Sales for the year (all on account) totaled \$900,000. These goods cost \$550,000 to manufacture.

Required:

Prepare journal entries to record the information above. Key your entries by the letters a through l.

a.	Raw Materials	96,000	
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	Accounts Payable		96,000
b.	Work in Process	88,000	
	Raw Materials		88,000
c.	Manufacturing Overhead	17,000	
	Accounts Payable		17,000
d.	Work in Process	174,000	
	Manufacturing Overhead	70,000	
	Salaries Expense	124,000	
	Salaries and Wages Payable		368,000
e.	Manufacturing Overhead	12,000	
	Accounts Payable		12,000
f.	Advertising Expense	98,000	
	Accounts Payable		98,000
g.	Manufacturing Overhead	56,250	
	Depreciation Expense	18,750	
	Accumulated Depreciation		75,000
h.	Manufacturing Overhead	64,000	
	Rent Expense	16,000	
	Accounts Payable		80,000
i.	Miscellaneous Expense	12,000	
	Accounts Payable		12,000
j.	Work in Process	105,600	
	Manufacturing Overhead		105,600
	$[(186,000/155,000) \times 88,000]$		
k.	Finished Goods	480,000	
	Work in Process		480,000
l.	Accounts Receivable	900,000	
	Sales		900,000

	Cost of Goods Sold	550,000	
	Finished Goods		550,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 2 Medium

Topic Area: Applying Manufacturing Overhead

Topic Area: Computing Predetermined Overhead Rates

138. Maggie Manufacturing Company applies manufacturing overhead to jobs using a predetermined overhead rate of 75% of direct labor cost. Any underapplied or overapplied overhead is closed to Cost of Goods Sold at the end of the month. During August, the following transactions were recorded by the company:

Raw materials (all direct materials):	
Purchased during the month	\$30,000
Used in production	\$34,000
Labor:	
Direct labor-hours worked during the month	4,000
Direct labor costs incurred	\$32,000
Indirect labor costs incurred	\$8,000
Manufacturing overhead costs incurred (total)	\$22,000
Inventories:	
Raw materials (all direct) August 31	\$10,000
Work in process, August 1	\$8,400
Work in process, August 31	\$16,000

Required:

Determine the following:

- The August 1 balance of Raw Materials.
- The amount of manufacturing overhead applied to jobs in August.
- The Cost of Goods Manufactured for August.
- The overapplied or underapplied manufacturing overhead for the month. Label this amount appropriately.

a. Raw materials used in production = Beginning raw materials inventory + Purchases of raw materials - Ending raw materials inventory

Beginning raw materials inventory = Raw materials used in production - Purchases of raw materials + Ending raw materials inventory

Beginning raw materials inventory = \$34,000 - \$30,000 + \$10,000 = \$14,000

b. Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred
 = 0.75 × \$32,000 = \$24,000

c. Cost of Goods Manufactured

Direct materials	\$34,000
Direct labor	32,000
Manufacturing overhead cost applied to work in process	<u>24,000</u>
Total manufacturing costs	90,000
Add: Beginning work in process inventory	<u>8,400</u>
	98,400
Deduct: Ending work in process inventory	<u>16,000</u>
Cost of goods manufactured	<u>\$82,400</u>

d. Overhead over or underapplied

Actual manufacturing overhead incurred	\$22,000	
Manufacturing overhead applied to Work in Process	<u>24,000</u>	
Underapplied (overapplied) manufacturing overhead	<u>(\$2,000)</u>	Overapplied

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-02 Apply overhead cost to jobs using a predetermined overhead rate.

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the

balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 3 Hard

Topic Area: Applying Manufacturing Overhead

Topic Area: Underapplied and Overapplied Overhead

Topic Area: Using T-accounts in Job-Order Costing

139. During December, Mccroskey Corporation incurred \$66,000 of actual Manufacturing Overhead costs. During the same period, the Manufacturing Overhead applied to Work in Process was \$69,000.

Required:

Prepare journal entries to record the incurrence of manufacturing overhead and the application of manufacturing overhead to Work in Process.

Manufacturing Overhead	66,000	
Various accounts		66,000
Work in Process	69,000	
Manufacturing Overhead		69,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

140. During December, Deller Corporation purchased \$79,000 of raw materials on credit to add to its raw materials inventory. A total of \$68,000 of raw materials was requisitioned from the storeroom for use in production. These requisitioned raw materials included \$4,000 of indirect materials.

Required:

Prepare journal entries to record the purchase of materials and their use in production.

Raw Materials	79,000	
Accounts Payable		79,000
Work in Process	64,000	
Manufacturing Overhead	4,000	
Raw Materials		68,000

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-04 Understand the flow of costs in a job-order costing system and prepare appropriate journal entries to record costs.

Level of Difficulty: 1 Easy

Topic Area: Computing Predetermined Overhead Rates

141. Alden Company recorded the following transactions for the just completed month. The company had no beginning inventories.
- (a) \$72,000 in raw materials were purchased for cash.
 - (b) \$67,000 in raw materials were requisitioned for use in production. Of this amount, \$56,000 was for direct materials and the remainder was for indirect materials.
 - (c) Total labor wages of \$112,000 were incurred and paid in cash. Of this amount, \$94,000 was for direct labor and \$18,000 was for indirect labor.
 - (d) Additional manufacturing overhead costs of \$108,000 were incurred and paid in cash.
 - (e) Manufacturing overhead costs of \$130,000 were applied to jobs using the company's predetermined overhead rate.
 - (f) All of the jobs worked on during the month were completed and shipped to customers.
 - (g) The underapplied or overapplied overhead for the month was closed out to Cost of Goods Sold.

Required:

- a. Post the above transactions to T-accounts.
- b. Determine the cost of goods manufactured.
- c. Determine the cost of goods sold (after closing Manufacturing Overhead).

Cash			
Bal		(a)	72,000
		(c)	112,000
		(d)	108,000
Raw Materials			
Bal	0	(b)	67,000
(a)	72,000		
	5,000		
Work In Process			
Bal	0	(f)	280,000

(b)	56,000		
(c)	94,000		
(e)	130,000		
	0		
Finished Goods			
Bal	0	(f)	280,000
(f)	280,000		
	0		
Manufacturing Overhead			
(b)	11,000	(e)	130,000
(c)	18,000		
(d)	108,000		
	137,000		130,000
	7,000	(g)	7,000
Cost of Goods Sold			
(f)	280,000		
(g)	7,000		
	287,000		

b. The cost of goods manufactured is \$280,000, which is the total amount transferred from work in process to finished goods.

c. The cost of goods sold is \$287,000.

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Underapplied and Overapplied Overhead

142. Schoff Corporation has provided the following data for the most recent month:

Raw materials, beginning balance	\$12,000
Work in process, beginning balance	\$24,000
Finished Goods, beginning balance	\$54,000
Transactions:	
(1) Raw materials purchases	\$77,000
(2) Raw materials used in production (all direct materials)	\$80,000
(3) Direct labor	\$74,000
(4) Manufacturing overhead costs incurred	\$84,000
(5) Manufacturing overhead applied	\$78,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$244,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$278,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

Raw Materials			
Bal	12,000	(2)	80,000
(1)	77,000		
Bal	9,000		
Work in Process			
Bal	24,000	(6)	244,000

(2)	80,000		
(3)	74,000		
(5)	78,000		
Bal	12,000		
Finished Goods			
Bal	54,000	(8)	278,000
(6)	244,000		
Bal	20,000		
Manufacturing Overhead			
(4)	84,000	(5)	78,000
	6,000	(7)	6,000
	0		
Cost of Goods Sold			
(7)	6,000		
(8)	278,000		
	284,000		

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Using T-accounts in Job-Order Costing

143. During January, Shanker Corporation recorded the following:

Raw materials, beginning balance	\$10,000
Work in process, beginning balance	\$24,000
Finished Goods, beginning balance	\$53,000

Transactions:	
(1) Raw materials purchases	\$63,000
(2) Raw materials used in production (all direct materials)	\$62,000
(3) Direct labor	\$75,000
(4) Manufacturing overhead costs incurred	\$71,000
(5) Manufacturing overhead applied	\$66,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$195,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$222,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, and Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

Raw Materials			
Bal	10,000		
(1)	63,000	(2)	62,000
Bal	11,000		

Work in Process			
Bal	24,000		
(2)	62,000		
(3)	75,000		
(5)	66,000	(6)	195,000
Bal	32,000		
Finished Goods			
Bal	53,000		
(6)	195,000	(8)	222,000
Bal	26,000		
Manufacturing Overhead			
(4)	71,000	(5)	66,000
	5,000	(7)	5,000
	0		
Cost of Goods Sold			
(7)	5,000		
(8)	222,000		
	227,000		

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Using T-accounts in Job-Order Costing

144. Sowers Inc. has provided the following data for October:

Raw materials, beginning balance	\$11,000
Work in process, beginning balance	\$29,000
Finished Goods, beginning balance	\$58,000

Transactions:	
(1) Raw materials purchases	\$67,000
(2) Raw materials used in production (all direct materials)	\$68,000
(3) Direct labor	\$52,000
(4) Manufacturing overhead costs incurred	\$78,000
(5) Manufacturing overhead applied	\$68,000
(6) Cost of units completed and transferred from Work in Process to Finished Goods	\$191,000
(7) Any overapplied or underapplied manufacturing overhead is closed to Cost of Goods Sold	?
(8) Finished goods are sold	\$244,000

Required:

Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, and Manufacturing Overhead, and Cost of Goods Sold. Record the beginning balances and each of the transactions listed above. Finally, determine the ending balances.

Raw Materials			
Bal	11,000	(2)	68,000
(1)	67,000		
Bal	10,000		
Work in Process			

Bal	29,000	(6)	191,000
(2)	68,000		
(3)	52,000		
(5)	68,000		
Bal	26,000		
Finished Goods			
Bal	58,000	(8)	244,000
(6)	191,000		
Bal	5,000		
Manufacturing Overhead			
(4)	78,000	(5)	68,000
	10,000	(7)	10,000
	0		
Cost of Goods Sold			
(7)	10,000		
(8)	244,000		
	254,000		

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-05 Use T-accounts to show the flow of costs in a job-order costing system.

Learning Objective: 02-07 Compute underapplied or overapplied overhead cost and prepare the journal entry to close the balance in Manufacturing Overhead to the appropriate accounts.

Level of Difficulty: 2 Medium

Topic Area: Schedules of Cost of Goods Manufactured and Cost of Goods Sold

Topic Area: Using T-accounts in Job-Order Costing

145. Pirkl Corporation has provided the following data for the month of March:

Inventories:	Beginning	Ending
Raw materials	\$25,000	\$30,000
Work in process	\$16,000	\$18,000
Finished goods	\$36,000	\$59,000

Additional information:	
Raw materials purchases	\$71,000
Direct labor cost	\$83,000
Manufacturing overhead cost incurred	\$74,000
Indirect materials included in manufacturing overhead cost incurred	\$5,000
Manufacturing overhead cost applied to Work in Process	\$71,000

Required:

Prepare a Schedule of Cost of Goods Manufactured and a Schedule of Cost of Goods Sold.

Cost of Goods Manufactured:		
Direct materials		
Beginning materials inventory	\$25,000	
Add: Purchases of raw materials	<u>71,000</u>	
Raw materials available for use	96,000	
Deduct: Ending raw materials inventory	<u>30,000</u>	
Raw materials used in production	66,000	
Less indirect materials included in manufacturing overhead incurred	<u>5,000</u>	\$61,000
Direct labor		83,000
Manufacturing overhead applied to Work in Process		<u>71,000</u>

Total manufacturing costs		215,000
Add: Beginning work in process inventory		<u>16,000</u>
		231,000
Deduct: Ending work in process inventory		<u>18,000</u>
Cost of goods manufactured		<u>\$213,000</u>

Overhead over or underapplied:	
Actual manufacturing overhead incurred	\$74,000
Manufacturing overhead applied to Work in Process	<u>71,000</u>
Underapplied (overapplied) manufacturing overhead	<u>\$3,000</u>

Cost of Goods Sold	
Beginning finished goods inventory	\$36,000
Add: Cost of goods manufactured	<u>213,000</u>
Cost of goods available for sale	249,000
Deduct: Ending finished goods inventory	<u>59,000</u>
Unadjusted cost of goods sold	190,000
Add: Underapplied overhead	<u>3,000</u>
Adjusted cost of goods sold	<u>\$193,000</u>

AACSB: Analytical Thinking

AICPA: BB Critical Thinking

AICPA: FN Measurement

Blooms: Apply

Learning Objective: 02-06 Prepare schedules of cost of goods manufactured and cost of goods sold and an income statement.

Level of Difficulty: 2 Medium

Topic Area: Underapplied and Overapplied Overhead