

EXERCISE 3–1 Compute the Predetermined Overhead Rate [LO3–1]

Harris Fabrics computes its predetermined overhead rate annually on the basis of direct labor-hours. At the beginning of the year, it estimated that 20,000 direct labor-hours would be required for the period's estimated level of production. The company also estimated \$94,000 of fixed manufacturing overhead expenses for the coming period and variable manufacturing overhead of \$2.00 per direct labor-hour. Harris's actual manufacturing overhead for the year was \$123,900 and its actual total direct labor was 21,000 hours.

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

EXERCISE 3–3 Computing Job Costs [LO3–3]

Mickley Company's predetermined overhead rate is \$14.00 per direct labor-hour and its direct labor wage rate is \$12.00 per hour. The following information pertains to Job A-500:

Direct materials	\$230
Direct labor	\$108

Required:

1. What is the total manufacturing cost assigned to Job A-500?
2. If Job A-500 consists of 40 units, what is the average cost assigned to each unit included in the job?

EXERCISE 3–4 Prepare Journal Entries [LO3–4]

Larned Corporation recorded the following transactions for the just completed month.

1. \$80,000 in raw materials were purchased on account.
2. \$71,000 in raw materials were requisitioned for use in production. Of this amount, \$62,000 was for direct materials and the remainder was for indirect materials.
3. Total labor wages of \$112,000 were incurred. Of this amount, \$101,000 was for direct labor and the remainder was for indirect labor.
4. Additional manufacturing overhead costs of \$175,000 were incurred.

Record the above transactions in journal entries.

EXERCISE 3–2 Apply Overhead [LO3–2]

Luthan Company uses a predetermined overhead rate of \$23.40 per direct labor-hour. This predetermined rate was based on a cost formula that estimated \$257,400 of total manufacturing overhead for an estimated activity level of 11,000 direct labor-hours.

The company incurred actual total manufacturing overhead costs of \$249,000 and 10,800 total direct labor-hours during the period.

Required:

Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

EXERCISE 3–7 Underapplied and Overapplied Overhead [LO3–7]

Osborn Manufacturing uses a predetermined overhead rate of \$18.20 per direct labor-hour. This predetermined rate was based on a cost formula that estimates \$218,400 of total manufacturing overhead for an estimated activity level of 12,000 direct labor-hours.

The company incurred actual total manufacturing overhead costs of \$215,000 and 11,500 total direct labor-hours during the period.

Required:

1. Determine the amount of underapplied or overapplied manufacturing overhead for the period.
2. Assuming that the entire amount of the underapplied or overapplied overhead is closed out to Cost of Goods Sold, what would be the effect of the underapplied or overapplied overhead on the company's gross margin for the period?

EXERCISE 3–8 Applying Overhead; Computing Unit Product Cost [LO3–2, LO3–3]

A company assigns overhead cost to completed jobs on the basis of 125% of direct labor cost. The job cost sheet for Job 313 shows that \$10,000 in direct materials has been used on the job and that \$12,000 in direct labor cost has been incurred. A total of 1,000 units were produced in Job 313.

1. What is the total manufacturing cost assigned to Job 313?
2. What is the unit product cost for Job 313?

PROBLEM 3–26 Journal Entries; T-Accounts; Financial Statements

Froya Fabrikker A/S of Bergen, Norway, is a small company that manufactures specialty heavy equipment for use in North Sea oil fields. The company uses a job-order costing system and applies manufacturing overhead cost to jobs on the basis of direct labor-hours. Its predetermined overhead rate was based on a cost formula that estimated \$360,000 of manufacturing overhead for an estimated allocation base of 900 direct labor-hours. The following transactions took place during the year (all purchases and services were acquired on account):

- A. Raw materials were purchased for use in production, \$200,000.
- B. Raw materials were requisitioned for use in production (all direct materials), \$185,000.
- C. Utility bills were incurred, \$70,000 (90% related to factory operations, and the remainder related to selling and administrative activities).
- D. Salary and wage costs were incurred:

Direct labor (975 hours)	\$230,000
Indirect labor	\$90,000
Selling and administrative salaries	\$110,000

- E. Maintenance costs were incurred in the factory, \$54,000.
- F. Advertising costs were incurred, \$136,000.
- G. Depreciation was recorded for the year, \$95,000 (80% related to factory equipment, and the remainder related to selling and administrative equipment).
- H. Rental cost incurred on buildings, \$120,000 (85% related to factory operations, and the remainder related to selling and administrative facilities).
- I. Manufacturing overhead cost was applied to jobs, \$? .
- J. Cost of goods manufactured for the year, \$770,000.
- K. Sales for the year (all on account) totaled \$1,200,000. These goods cost \$800,000 according to their job cost sheets.

The balances in the inventory accounts at the beginning of the year were:

Raw Materials	\$30,000
Work in Process	\$21,000
Finished Goods	\$60,000

1. Post to T-accounts. (Don't forget to enter the beginning inventory balances above.) Determine the ending balances in the inventory accounts and in the Manufacturing Overhead account.
2. Prepare a schedule of cost of goods manufactured.
3. Prepare a journal entry to close any balance in the Manufacturing Overhead account to Cost of Goods Sold. Prepare a schedule of cost of goods sold.

Journal entries

A

_____	<input type="text"/>	
_____		<input type="text"/>

B

_____	<input type="text"/>	
_____		<input type="text"/>

C

_____	<input type="text"/>	
_____	<input type="text"/>	
_____		<input type="text"/>

D

_____	<input type="text"/>	
_____	<input type="text"/>	
_____	<input type="text"/>	
_____		<input type="text"/>

E

_____	<input type="text"/>	
_____		<input type="text"/>

F

_____	<input type="text"/>	
_____		<input type="text"/>

G

_____	<input type="text"/>	
_____	<input type="text"/>	
_____		<input type="text"/>

H

_____	<input type="text"/>	
_____	<input type="text"/>	
_____		<input type="text"/>

I

_____	<input type="text"/>	
_____		<input type="text"/>

J

_____	<input type="text"/>	
_____		<input type="text"/>

K

_____	<input type="text"/>	<input type="text"/>
_____		<input type="text"/>
_____	<input type="text"/>	<input type="text"/>
_____		<input type="text"/>

T Account Form

Accounts Receivable	
()	

Sales	
	()

Raw Materials	
Bal.	30,000
()	()
Bal.	

Cost of Goods Sold	
()	

Work in Process	
Bal.	21,000 ()
()	
()	
()	
Bal.	

Manufacturing Overhead	
()	()
()	
()	
()	
()	
	Bal.

Finished Goods	
Bal.	60,000 ()
()	
Bal.	

Advertising Expense	
()	

Accumulated Depreciation	
	()

Utilities Expense	
()	

Accounts Payable	
	()
	()
	()
	()
	()

Salaries Expense	
()	

Depreciation Expense	
()	

Salaries & Wages Payable	
	()

Rent Expense	
()	

Froya Fabrikker A/S
Schedule of Cost of Goods Manufactured

Direct materials:

Cost of goods manufactured		

Schedule of cost of goods sold:

Adjusted cost of goods sold.....	<u>\$795,000</u>