Chapter 3
Job-Order Costing

Exercise 3-1 (10 minutes)

The estimated total manufacturing overhead cost is computed as follows:

Y = $466,000 + ($3.00 per DLH)(40,000 DLHs)

Estimated fixed manufacturing overhead	$466,000
Estimated variable manufacturing overhead:	
$3.00 per DLH × 40,000 DLHs	120,000
Estimated total manufacturing overhead cost	$586,000

The predetermined overhead rate is computed as follows:

Estimated total manufacturing overhead	$586,000	
÷ Estimated total direct labor hours (DLHs)	40,000	DLHs
= Predetermined overhead rate	$14.65	per DLH

Exercise 3-2 (10 minutes)

Actual direct labor-hours	12,600
× Predetermined overhead rate	$23.10
= Manufacturing overhead applied	$291,060

Exercise 3-3 (10 minutes)

1. Total direct labor-hours required for Job A-200:

Direct labor cost	$120
÷ Direct labor wage rate per hour	$12
= Total direct labor hours	10

Total manufacturing cost assigned to Job A-200:

Direct materials	$200
Direct labor	120
Manufacturing overhead applied	
($18 per DLH × 10 DLHs)	180
Total manufacturing cost	$500

2. Unit product cost for Job A-200:

Total manufacturing cost	$500
÷ Number of units in the job	50
= Unit product cost	$10

Exercise 3-6

1. Cost of Goods Manufactured

Direct materials:		
Raw materials inventory, beginning	$24,000	
Add: Purchases of raw materials	53,000	
Total raw materials available	77,000	
Deduct: Raw materials inventory, ending	6,000	
Raw materials used in production	71,000	
Deduct: Indirect materials included in manufacturing overhead	8,000	$ 63,000
Direct labor		62,000
Manufacturing overhead applied to work in process inventory		41,000
Total manufacturing costs		166,000
Add: Beginning work in process inventory		41,000
		207,000
Deduct: Ending work in process inventory		38,000
Cost of goods manufactured		$169,000

2. Cost of Goods Sold

Finished goods inventory, beginning	$ 86,000
Add: Cost of goods manufactured	169,000
Cost of goods available for sale	255,000
Deduct: Finished goods inventory, ending	93,000
Unadjusted cost of goods sold	162,000
Add: Underapplied overhead	8,000
Adjusted cost of goods sold	$170,000

Exercise 3-7

1.

Actual direct labor-hours	8,250
× Predetermined overhead rate	$21.40
= Manufacturing overhead applied	$176,550
Less: Manufacturing overhead incurred	172,500
Manufacturing overhead overapplied	$ 4,050

2. Because manufacturing overhead is overapplied, the cost of goods sold would decrease by $4,050 and the gross margin would increase by $4,050.