EXERCISE 3–1 Compute the Predetermined Overhead Rate [LO1]

Logan Products computes its predetermined overhead rate annually on the basis of direct labor-hours. At the beginning of the year, it estimated that 40,000 direct labor-hours would be required for the period's estimated level of production. The company also estimated $466,000 of fixed manufacturing overhead expenses for the coming period and variable manufacturing overhead of $3.00 per direct labor-hour. Logan's actual manufacturing overhead for the year was $713,400 and its actual total direct labor was 41,000 hours.

Required:

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

EXERCISE 3–2 Apply Overhead [LO2]

Westan Corporation uses a predetermined overhead rate of $23.10 per direct labor-hour. This predetermined rate was based on a cost formula that estimated $277,200 of total manufacturing overhead for an estimated activity level of 12,000 direct labor-hours.

The company incurred actual total manufacturing overhead costs of $266,000 and 12,600 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 3–3 Computing Job Costs [LO3]

Weaver Company's predetermined overhead rate is $18.00 per direct labor-hour and its direct labor wage rate is $12.00 per hour. The following information pertains to Job A-200:

Direct materials	$200
Direct labor	$120

Required:

1. What is the total manufacturing cost assigned to Job A-200?
2. If Job A-200 consists of 50 units, what is the average cost assigned to each unit included in the job?

EXERCISE 3–6 Schedules of Cost of Goods Manufactured and Cost of Goods Sold [LO6]

Parmitan Corporation has provided the following data concerning last month's manufacturing operations.

Purchases of raw materials		$53,000
Indirect materials included in manufacturing overhead		$8,000
Direct labor		$62,000
Manufacturing overhead applied to work in process		$41,000
Underapplied overhead		$8,000
	Beginning	**Ending**
Inventories:		
Raw materials	$24,000	$6,000
Work in process	$41,000	$38,000
Finished goods	$86,000	$93,000

Required:

1. Prepare a schedule of cost of goods manufactured for the month.
2. Prepare a schedule of cost of goods sold for the month.

EXERCISE 3–7 Underapplied and Overapplied Overhead [LO7]

Cretin Enterprises uses a predetermined overhead rate of $21.40 per direct labor-hour. This predetermined rate was based on a cost formula that estimated $171,200 of total manufacturing overhead for an estimated activity level of 8,000 direct labor-hours.

The company incurred actual total manufacturing overhead costs of $172,500 and 8,250 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?