EXERCISE 2-2 Classification of Costs as Period or Product Costs [L02]

Suppose that you have been given a summer job at Fairwings Avionics, a company that manufactures sophisticated radar sets for commercial aircraft. The company, which is privately owned, has approached a bank for a loan to help finance its tremendous growth. The bank requires financial statements before approving such a loan. You have been asked to help prepare the financial statements and were given the following list of costs:

1. The cost of the memory chips used in a radar set.
2. Factory heating costs.
3. Factory equipment maintenance costs.
4. Training costs for new administrative employees.
5. The cost of the solder that is used in assembling the radar sets.
6. The travel costs of the company’s salespersons.
7. Wages and salaries of factory security personnel.
8. The cost of air-conditioning executive offices.
9. Wages and salaries in the department that handles billing customers.
10. Depreciation on the equipment in the fitness room used by factory workers.
11. Telephone expenses incurred by factory management.
12. The costs of shipping completed radar sets to customers.
13. The wages of the workers who assemble the radar sets.
14. The president’s salary.
15. Health insurance premiums for factory personnel.

Required:
Classify the above costs as either product (inventoriable) costs or period (noninventoriable) costs for purposes of preparing the financial statements for the bank.

EXERCISE 2-7 Differential, Opportunity, and Sunk Costs [L07]

The Sorrento Hotel is a four-star hotel located in downtown Seattle. The hotel’s operations vice president would like to replace the hotel’s antiquated computer terminals at the registration desk with attractive state-of-the-art flat-panel displays. The new displays would take less space, would consume less power than the old computer terminals, and would provide additional security since they can only be viewed from a restrictive angle. The new computer displays would not require any new wiring. The hotel’s chef believes the funds would be better spent on a new bulk freezer for the kitchen.

Required:
For each of the items below, indicate by placing an X in the appropriate column whether it should be considered a differential cost, an opportunity cost, or a sunk cost in the decision to replace the old computer terminals with new flat-panel displays. If none of the categories apply for a particular item, leave all columns blank.

<table>
<thead>
<tr>
<th>Item</th>
<th>Differential Cost</th>
<th>Opportunity Cost</th>
<th>Sunk Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex.</td>
<td>Cost of electricity to run the terminals</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.</td>
<td>Cost of the new flat-panel displays</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
<td>Cost of the old computer terminals</td>
<td></td>
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<tr>
<td>3.</td>
<td>Rent on the space occupied by the registration desk</td>
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<td>4.</td>
<td>Wages of registration desk personnel</td>
<td></td>
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<td>5.</td>
<td>Benefits from a new freezer</td>
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<td>6.</td>
<td>Costs of maintaining the old computer terminals</td>
<td></td>
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<td>7.</td>
<td>Cost of removing the old computer terminals</td>
<td></td>
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<td>8.</td>
<td>Cost of existing registration desk wiring</td>
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</tbody>
</table>
EXERCISE 3-3 Compute the Predetermined Overhead Rate [LO3]
Logan Products computes its predetermined overhead rate annually on the basis of direct labor-hours. At the beginning of the year it estimated that its total manufacturing overhead would be $586,000 and the total direct labor would be 40,000 hours. Its actual total 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 3-5 Apply Overhead [LO5]
Westan Corporation uses a predetermined overhead rate of $23.10 per direct labor-hour. This predetermined rate was based on 12,000 estimated direct labor-hours and $277,200 of estimated total manufacturing overhead.

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 units of product during the period.