

Use the following to answer questions 1-3:

Acton Company has two products: A and B. The annual production and sales of Product A is 800 units and of Product B is 500 units. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.3 direct labor hours per unit and Product B requires 0.2 direct labor hours per unit. The total estimated overhead for next period is \$92,023.

The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		Total
		Product A	Product B	
Activity 1	\$14,487	500	600	1,100
Activity 2	\$64,800	2,500	500	3,000
General Factory	\$12,736	240	100	340
Total	\$92,023			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor hours.)

1. The predetermined overhead rate under the traditional costing system is closest to:  
A) \$37.46.  
B) \$21.60.  
C) \$13.17.  
D) \$270.66.
2. The overhead cost per unit of Product B under the traditional costing system is closest to:  
A) \$54.13.  
B) \$7.49.  
C) \$4.32.  
D) \$2.63.
3. The predetermined overhead rate (i.e., activity rate) for Activity 1 under the activity-based costing system is closest to:  
A) \$28.97.  
B) \$13.17.  
C) \$83.66.  
D) \$24.15.

Use the following to answer questions 4-5:

Forse Florist specializes in large floral bouquets for hotels and other commercial spaces. The company has provided the following data concerning its annual overhead costs and its activity based costing system:

Overhead costs:

Wages and salaries	\$80,000
Other expenses	\$40,000
Total	\$120,000

Distribution of resource consumption:

	<u>Activity Cost Pools</u>			
	Making			
	<u>Bouquets</u>	<u>Delivery</u>	<u>Other</u>	<u>Total</u>
Wages and salaries	60%	30%	10%	100%
Other expenses	45%	25%	30%	100%

The "Other" activity cost pool consists of the costs of idle capacity and organization-sustaining costs.

The amount of activity for the year is as follows:

<u>Activity Cost Pool</u>	<u>Activity</u>
Making bouquets	60,000 bouquets
Delivery	5,000 deliveries

4. What would be the total overhead cost per bouquet according to the activity based costing system? In other words, what would be the overall activity rate for the making bouquets activity cost pool? (Round to the nearest whole cent.)
  - A) \$0.90
  - B) \$1.05
  - C) \$1.20
  - D) \$1.10
  
5. What would be the total overhead cost per delivery according to the activity based costing system? In other words, what would be the overall activity rate for the deliveries activity cost pool? (Round to the nearest whole cent.)
  - A) \$6.00
  - B) \$6.60
  - C) \$7.20
  - D) \$6.80

6. Daba Company manufactures two products, Product F and Product G. The company expects to produce and sell 1,400 units of Product F and 1,800 units of Product G during the current year. The company uses activity-based costing to compute unit product costs for external reports. Data relating to the company's three activity cost pools are given below for the current year:

<u>Activity</u> <u>Cost Pool</u>	Estimated Overhead Costs	<u>Expected Activity</u>		
		<u>Product F</u>	<u>Product G</u>	<u>Total</u>
Machine setups	\$10,800	80	100	180
Purchase orders	\$77,520	510	1,010	1,520
General factory	\$75,920	2,240	3,600	5,840

Required:

Using the activity-based costing approach, determine the overhead cost per unit for each product. (Show your work and label all computations.)

## Answer Key -- Quiz Chapter 8 Fall 1999

1. D     \$270.66.  
Format: Multiple Choice  
Difficulty: Medium  
Type: *(None)*  
Origin: Chapter 8, Activity-Based Costing: A .....51  
Refer To: Ref. 8-8
  
2. A     \$54.13.  
Format: Multiple Choice  
Difficulty: Medium  
Type: *(None)*  
Origin: Chapter 8, Activity-Based Costing: A .....52  
Refer To: Ref. 8-8
  
3. B     \$13.17.  
Format: Multiple Choice  
Difficulty: Medium  
Type: *(None)*  
Origin: Chapter 8, Activity-Based Costing: A .....53  
Refer To: Ref. 8-8
  
4. D     \$1.10  
Format: Multiple Choice  
Difficulty: Medium  
Type: *(None)*  
Origin: Chapter 8, Activity-Based Costing: A .....67  
Refer To: Ref. 8-14
  
5. D     \$6.80  
Format: Multiple Choice  
Difficulty: Medium  
Type: *(None)*  
Origin: Chapter 8, Activity-Based Costing: A .....68  
Refer To: Ref. 8-14

6. The overhead rates for each activity center are as follows:

Activity <u>Cost Pool</u>	Estimated Overhead <u>Costs</u>	Expected <u>Activity</u>	Overhead <u>Rate</u>
Machine setups	\$10,800	180	\$60.00
Purchase orders	\$77,520	1,520	\$51.00
General factory	\$75,920	5,840	\$13.00

The overhead cost charged to each product is:

	<u>Product F</u>		<u>Product G</u>	
	<u>Activity</u>	<u>Amount</u>	<u>Activity</u>	<u>Amount</u>
Machine setups	80	\$ 4,800	100	\$ 6,000
Purchase orders	510	26,010	1,010	51,510
General factory	2,240	<u>29,120</u>	3,600	<u>46,800</u>
Total overhead cost		\$59,930		\$104,310
		aaaaaa		aaaaaaa

Overhead cost per unit:

Product F:  $\$59,930 \div 1,400 \text{ units} = \$42.81 \text{ per unit.}$

Product G:  $\$104,310 \div 1,800 \text{ units} = \$57.95 \text{ per unit.}$

Format: Essay

Difficulty: Medium

Type: (None)

Origin: Chapter 8, Activity-Based Costing: A .....93