

ABCExtraPrac

Student: _____

1. Swagg Jewelry Corporation manufactures custom jewelry. In the past, Swagg has been using a traditional overhead allocation system based solely on direct labor-hours. Sensing that this system was distorting costs and selling prices, Swagg has decided to switch to an activity-based costing system using three activity cost pools. Information on these activity cost pools are as follows:

Activity Cost Pool	Total Cost	Total Activity
Labor Related.....	\$40,000	8,000 direct labor-hours
Machine Related.....	\$50,000	12,500 machine hours
Quality Control.....	\$12,000	800 inspections

Job #309 incurred \$900 of direct material, 30 hours of direct labor at \$40 per hour, 80 machine hours, and 5 inspections.

Required:

- What is the cost of the job under the activity-based costing system?
- Relative to the activity-based costing system, would Job #309 have been over costed or undercosted under the traditional system and by how much?

ABCExtraPrac Key

1. Swagg Jewelry Corporation manufactures custom jewelry. In the past, Swagg has been using a traditional overhead allocation system based solely on direct labor-hours. Sensing that this system was distorting costs and selling prices, Swagg has decided to switch to an activity-based costing system using three activity cost pools. Information on these activity cost pools are as follows:

Activity Cost Pool	Total Cost	Total Activity
Labor Related.....	\$40,000	8,000 direct labor-hours
Machine Related.....	\$50,000	12,500 machine hours
Quality Control.....	\$12,000	800 inspections

Job #309 incurred \$900 of direct material, 30 hours of direct labor at \$40 per hour, 80 machine hours, and 5 inspections.

Required:

- What is the cost of the job under the activity-based costing system?
- Relative to the activity-based costing system, would Job #309 have been overcosted or undercosted under the traditional system and by how much?

- The activity rates are computed as follows:

Activity Cost Pools	Total Cost	Total Activity	Activity Rate
Labor Related.....	\$40,000	8,000 direct labor-hours	\$5 per direct labor-hour
Machine Related.....	\$50,000	12,500 machine hours	\$4 per machine hour
Quality Control.....	\$12,000	800 inspections	\$15 per inspection

The overhead cost charged to Job #309 is:

Activity Cost Pools	Activity Rate	Activity	ABC Cost
Labor Related.....	\$5 per direct labor-hour	30 direct labor-hours	\$150
Machine Related.....	\$4 per machine hour	80 machine hours	320
Quality Control.....	\$15 per inspection	5 inspections	75
Total overhead cost			<u>\$545</u>

Direct materials.....	\$900
Direct labor (30 direct labor-hours × \$40 per direct labor-hour).....	1,200
ABC overhead.....	545
Product cost.....	<u>\$2,645</u>

b. Under traditional costing, the predetermined overhead rate would have been:

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = $(\$40,000 + \$50,000 + \$12,000) ÷ 8,000$ direct labor-hours = \$12.75 per direct labor-hour

Direct materials.....	\$900.00
Direct labor (30 direct labor-hours × \$40 per direct labor-hour).....	1,200.00
Traditional overhead (30 direct labor-hours × \$12.75 per direct labor-hour).....	<u>382.50</u>
Product cost.....	<u>\$2,482.50</u>

Relative to the activity-based costing system, the traditional costing system undercosts the job by \$162.50

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Apply

Difficulty: 3 Hard

Garrison - Chapter 07 #129

Learning Objective: 07-01 Understand activity-based costing and how it differs from a traditional costing system.

Learning Objective: 07-03 Compute activity rates for cost pools.

Learning Objective: 07-04 Assign costs to a cost object using a second-stage allocation.

ABCEXtraPrac Summary

<u>Category</u>	<u># of Questions</u>
AACSB: Analytic	1
AICPA BB: Critical Thinking	1
AICPA FN: Measurement	1
Blooms: Apply	1
Difficulty: 3 Hard	1
Garrison - Chapter 07	1
Learning Objective: 07-01 Understand activity-based costing and how it differs from a traditional costing system.	1
Learning Objective: 07-03 Compute activity rates for cost pools.	1
Learning Objective: 07-04 Assign costs to a cost object using a second-stage allocation.	1