SOLUTION TO EXERCISES SECTION 1

1. Select the term from the list provided that best matches each of the following descriptions. The first is done for you.

Answer	Description	List of terms
4	A. Costs that are incurred after the manufacturing process is complete	1. Benchmarking
1	B. The identification of the best practices used by world-class competitors	2. Cost allocation
10	C. The linked sequence of activities that create value for the customer	3. Direct costs
6	D. Costs that cannot be easily traced to specific products	4. Downstream costs
8	E. All costs related to obtaining or manufacturing a product intended for sale to customers	5. Financial accounting
9	F. Work that contributes to a product's ability to satisfy customer needs	6. Indirect costs
2	G. The process of dividing a total cost into parts and assigning the parts to relevant cost objects	7. Period costs
5	H. The field of accounting that is designed to meet the information needs of external users	8. Product costs
7	I. General, selling, and administrative costs that are expensed in the period in which the economic sacrifice is made	9. Value-added activity
3	J. Costs that can easily and conveniently be traced to products	10. Value chain

2. Select the term from the list provided that best matches each of the following descriptions. The first is done for you.

Answer	Description	List of terms
4	A. An inventory flow system that minimizes the amount of inventory on hand	1. Continuous improvement
3	B. The organization established by the accounting profession to develop accounting standards	2. Cost of goods sold
5	C. The area of accounting designed to meet information needs of internal users	3. Financial Accounting Standards Board
9	D. The government agency authorized to establish and regulate public company reporting practices	4. Just in time
10	E. Assessing the value chain to create new value-added activities	5. Managerial accounting
6	F. Tasks that do not contribute to a product's ability to satisfy customer needs	6. Nonvalue-added activities
8	G. Costs incurred before the manufacturing process begins	7. Re-engineering
7	H. The process of changing an organization's production and delivery systems to make the organization more competitive	8. Upstream costs
1	I. The ongoing process through which employees become more effective and learn to work more efficiently	9. Securities and Exchange Commission
2	J. The term used for the amount of product costs expensed in the current period	10. Activity-based management

3. The Giga Company produces tablet computers. The following information is provided:

a) Materials used	$216,000
b) Advertising	$40,000
c) Insurance, factory	$20,000
d) Administrative salaries	$50,000
e) Property taxes, factory	$12,000
f) Utilities, administrative building	$22,000
g) Factory labor	$80,000
h) Sales commissions	$56,000
i) Factory supervisor's salary	$60,000
j) Research and development	$18,000
k) Depreciation, factory	$12,000
l) Depreciation, office	$8,000
m) Indirect materials	$14,000

Required:

Classify each of the company's costs as a period cost (general, selling, and administrative cost) or as a direct or indirect product cost. Enter the dollar amount of the cost in the appropriate column. After entering all amounts, calculate the total general, selling, and administrative cost, the total direct product cost, and the total indirect product cost.

Answers will vary

Item	Period Cost	Direct product cost	Indirect product cost
a)		$216,000	
b)	40,000		
c)			20,000
d)	50,000		
e)			12,000
f)	22,000		
g)		80,000	
h)	56,000		
i)			60,000
j)	18,000		
k)			12,000
l)	8,000		
m)			14,000
Total	$194,000	$296,000	$118,000

4. Reno Company provided the following information regarding its operations for the month ending September 30, 2013:

Administrative costs	$30,000
Depreciation on factory equipment	12,000
Indirect materials	2,000
Marketing and distribution costs	24,000
Salaries for factory supervisors	20,000
Wages for production workers	26,000
Raw materials used	38,000
Sales revenue	196,000
Selling costs	18,000
Utilities for production facilities	8,000
Number of units produced	20,000
Number of units sold	15,000

Required:

1) Compute the firm's total manufacturing overhead cost.
2) Prepare a schedule of inventory costs that shows total product costs, ending inventory, and cost of goods sold; and
3) Prepare an income statement for the month ending September 30, 2013.

Answers will vary

Feedback: 1) Total manufacturing overhead cost:

Depreciation on factory equipment	$12,000
Indirect materials	2,000
Salaries for factory supervisors	20,000
Utilities for production facilities	8,000
Total overhead cost	$42,000

2) Schedule of inventory costs:

Raw materials used	$38,000
Wages for production workers	26,000
Manufacturing overhead cost	42,000
Total product costs	$106,000
Less: Cost of goods sold	
15,000 units x $106,000/20,000	79,500
Ending inventory balance	$26,500

3) Income statement:

Reno Company		
Income Statement		
For the Month Ended September 30, 2013		
Sales		$196,000
Less: Cost of goods sold		79,500
Gross margin		116,500
Less: General, selling and administrative expenses		
Administrative expenses	$30,000	
Marketing and distribution expenses	24,000	
Selling expenses	18,000	72,000
Operating income		$44,500

5. Arizona Company provided the following information regarding its most recent year of operations:

Administrative salaries	$24,000
Direct labor	48,000
Direct raw material	80,000
Marketing and distribution costs	60,000
Overhead costs	36,000
Product design and testing	30,000
Research and development	40,000
Sales revenues	410,000
Sales salaries and commissions	54,000
Warranty costs	4,000
Number of units produced	20,000
Number of units sold	20,000

Required:

Determine the following amounts:

(a) Total product costs
(b) Total upstream costs
(c) Total downstream costs
(d) Product cost per unit
(e) Total cost per unit, including product costs and upstream and downstream costs
(f) The selling price per unit that would be required if the company wishes to earn a profit margin equal to 25% of total cost
(g) Comment on the company's profitability at its current selling price

Answers will vary

Feedback: (a) Total product costs:

Direct raw material	$80,000
Direct labor	48,000
Overhead costs	36,000
Total product costs	$164,000

(b) Total upstream costs:

Product testing	$30,000
Research and development	40,000
Total upstream costs	$70,000

(c) Total downstream costs:

Administrative salaries	$24,000
Marketing and distribution costs	60,000
Sales salaries and commissions	54,000
Warranty costs	4,000
Total downstream costs	$142,000

(d) Total product cost per unit:

Total product costs/units produced = $164,000/20,000 = $8.20 per unit

(e) Total cost per unit:

Total costs/units produced = $376,000/20,000 = $18.80 per unit

(f) Selling price to earn a profit margin equal to 25% of total cost:

Total unit cost + (total unit cost times profit margin) = $18.80 + ($18.80 × 25%) = $23.50 per unit

(g) Current profitability:

The company's current selling price of $20.50 ($410,000/20,000 units) covers the product costs and the upstream and downstream costs, but it does not provide the amount of profit that the company would like to earn. Instead of generating a profit margin of 25% of total costs, it is earning a profit margin of approximately 9% of total costs.

6. The Jacobson Manufacturing Company was started at the beginning of the current year when it acquired $200,000 from its owners. During the year, the company incurred the following costs, all for cash:

Direct material costs	$80,000
Direct labor costs	100,000
Overhead costs	40,000
Selling and administrative costs	60,000

The company produced 10,000 units of product and sold 8,000 units. The average selling price was $34 per unit; all sales were for cash. The accountant who prepared the firm's financial statements misclassified the selling and administrative costs as product costs.

Required:

Demonstrate the impact of the error on the company's income statement and balance sheet by completing the following schedule:

Answers will vary

	Scenario 1: With the error	Scenario 2: Without the error
Income Statement:		
Revenue	$272,000	$272,000
Less: Cost of goods sold	224,000	176,000
Gross margin	48,000	96,000
Less: Selling, general, and administrative expenses	0	60,000
Net income	$48,000	$36,000
Balance sheet:		
Assets		
Cash	$192,000	$192,000
Inventory	56,000	44,000
Total assets	$248,000	$236,000
Equity		
Common stock	$200,000	$200,000
Retained earnings	48,000	36,000
Total equity	$248,000	$236,000