

Cost Concepts: Practice Quiz Questions

My Notes

TB Problem Qu. 1-273 (Static) A number of costs are listed below.

Cost Description	Cost Object	Direct (D) or Indirect (I)
1. Wages of carpenters on a home building site	A particular home	D
2. Cost of wiring used in making a personal computer	A particular personal computer	I
3. Manager's salary at a hotel run by a chain of hotels	A particular hotel guest	I
4. Manager's salary at a hotel run by a chain of hotels	The particular hotel	D
5. Cost of aluminum mast installed in a yacht at a yacht manufacturer	A particular yacht	D
6. Monthly lease cost of X-ray equipment at a hospital	The Radiology (X-Ray) Department	D
7. Cost of screws used to secure wood trim in a yacht at a yacht manufacturer	A particular yacht	I
8. Cost of electronic navigation system installed in a yacht at a yacht manufacturer	A particular yacht	D
9. Cost of a replacement battery installed in a car at the auto repair shop of an automobile dealer	The auto repair shop	D
10. Cost of a measles vaccine administered at an outpatient clinic at a hospital	A particular patient	D

Required:

For each item above, indicate whether the cost is direct or indirect with respect to the cost object listed next to it.

Solution to TB Problem Qu. 1-273

1. Wages of carpenters on a home building site; A particular home; Direct
2. Cost of wiring used in making a personal computer; A particular personal computer; Indirect
3. Manager's salary at a hotel run by a chain of hotels; A particular hotel guest; Indirect
4. Manager's salary at a hotel run by a chain of hotels; The particular hotel; Direct
5. Cost of aluminum mast installed in a yacht at a yacht manufacturer; A particular yacht; Direct
6. Monthly lease cost of X-ray equipment at a hospital; The Radiology (X-Ray) Department; Direct
7. Cost of screws used to secure wood trim in a yacht at a yacht manufacturer; A particular yacht; Indirect
8. Cost of electronic navigation system installed in a yacht at a yacht manufacturer; A particular yacht; Direct
9. Cost of a replacement battery installed in a car at the auto repair shop of an automobile dealer; The auto repair shop; Direct
10. Cost of a measles vaccine administered at an outpatient clinic at a hospital; A particular patient; Direct

References

Essay

Difficulty: 1 Easy

TB Problem Qu. 1-273 (Static) A number of costs are listed...

Learning Objective: 01-01 Understand cost classifications used for assigning costs to cost objects: direct costs and indirect costs.

TB Problem Qu. 1-275 (Algo) Saxbury Corporation's relevant range of activity...

Saxbury Corporation's relevant range of activity is 3,000 units to 7,000 units. When it produces and sells 5,200 units, its average costs per unit are as follows:

		Average Cost per Unit	5200		
<u>Prod</u>	Direct materials	9.95	V \$ 5.10 V \$ 3.45 V \$ 1.40	26,520	} \$51,740 VC
	Direct labor			17,940	
	Variable manufacturing overhead			7,280	
	Fixed manufacturing overhead			18,200	
Fixed selling expense	F \$ 3.50 F \$ 0.60	3,120			
<u>Per</u>	Fixed administrative expense	0.70	F \$ 0.45 V \$ 0.35 V \$ 0.35	2,340	} \$ 3,640 VC
	Sales commissions			1,820	
	Variable administrative expense			1,820	

Required:

a. For financial reporting purposes, what is the total amount of product costs incurred to make 5,200 units?

Product Costs

DM	\$5.10	} \$9.95 x 5,200 units = \$51,740
DL	3.45	
VMOH	1.40	
FMOH		\$3.50 x 5,200 units = 18,200
		<u>\$ 69,940</u>

b. For financial reporting purposes, what is the total amount of period costs incurred to sell 5,200 units?

Period Costs

F. selling	0.60	} 1.05 x 5200 = \$5,460
F. admin	0.45	
V. commissions	0.35	} \$0.70 x 5200 = \$3,640
V. admin	0.35	
		<u>\$ 9,100</u>

c. If 6,200 units are sold, what is the variable cost per unit sold? (Round "Per unit" answer to 2 decimal places.)

DM	5.10
DL	3.45
VMOH	1.40
V. comm	0.35
V. admin	0.35
	<u>\$10.65</u> x 6,200 units = <u>\$66,030</u>

	Average Cost per Unit	
Direct materials	\$ 5.10	VC [\$ 9.95
Direct labor	\$ 3.45	
Variable manufacturing overhead	\$ 1.40	
Fixed manufacturing overhead	\$ 3.50	@ <u>5200</u> units
Fixed selling expense	\$ 0.60	
Fixed administrative expense	\$ 0.45	
Sales commissions	\$ 0.35	
Variable administrative expense	\$ 0.35	
		VC [\$ 0.70

d. If 6,200 units are sold, what is the total amount of variable costs related to the units sold?

$$\begin{aligned}
 &V, \text{ Product } \$9.95 \\
 &V, \text{ Period } \$0.70 \\
 &\hline
 &\$10.65 \times 6200 \text{ units} = \underline{\underline{\$66,030}} \\
 &\hspace{15em} \text{Total VC}
 \end{aligned}$$

e. If 6,200 units are produced, what is the average fixed manufacturing cost per unit produced? (Round "Per unit" answer to 2 decimal places.)

$$\begin{aligned}
 &F, \text{ MOH } \$3.50 \times \underline{\underline{5,200}} \text{ units} = \$18,200 \\
 &\hspace{15em} \div 6200 \text{ units} \\
 &\hline
 &\text{Avg FMOH per unit} = \underline{\underline{\$2.94}} \\
 &\text{@ 6200 produced.}
 \end{aligned}$$

f. If 6,200 units are produced, what is the total amount of fixed manufacturing cost incurred?

$$\begin{aligned}
 &FMOH \text{ per unit } \$3.50 \\
 &\times \underline{\underline{5200}} \text{ units produced} \\
 &\hline
 &\underline{\underline{\$18,200}} \text{ Total FMOH}
 \end{aligned}$$

	Average Cost per Unit
Direct materials	\$ 5.10
Direct labor	\$ 3.45
Variable manufacturing overhead	\$ 1.40
Fixed manufacturing overhead	\$ 3.50
Fixed selling expense	\$ 0.60
Fixed administrative expense	\$ 0.45
Sales commissions	\$ 0.35
Variable administrative expense	\$ 0.35

indirect

j. If 4,200 units are produced, what is the total amount of indirect manufacturing cost incurred?

Indirect

$$\begin{array}{r}
 \text{VMOH } \$1.40 \times 4,200 \text{ units} = \$5,880 \\
 \text{FMOH } 3.50 \times 5,200 \text{ units} = \underline{18,200} \\
 \hline
 \$24,080 \\
 \hline
 \text{Total Indirect} \\
 \text{Mnfc Costs}
 \end{array}$$

k. What incremental manufacturing cost will the company incur if it increases production from 5,200 to 5,201 units? (Round "Per unit" answer to 2 decimal places.)

*one unit
above 5200
units*

*only
variable
mnc
costs*

$$\begin{array}{r}
 \left\{ \begin{array}{l} \text{DM} \\ \text{DL} \\ \text{VMOH} \end{array} \right. \begin{array}{r} \$5.10 \\ 3.45 \\ 1.40 \\ \hline \end{array} \\
 \hline
 \underline{\underline{\$9.95}}
 \end{array}$$

No fixed costs incurred because
 $5200 \times \$3.50 = \underline{\underline{\$18,200}}$ is fixed.

Solution to TB Problem Qu. 1-275 (Algo) Saxbury Corporation's relevant range of activity...

a.

Direct materials	\$ 5.10
Direct labor	3.45
Variable manufacturing overhead	1.40
Variable manufacturing cost per unit	<u>\$ 9.95</u>
Total variable manufacturing cost (\$9.95 per unit × 5,200 units produced)	\$ 51,740
Total fixed manufacturing overhead cost (\$3.50 per unit × 5,200 units produced)	18,200
Total product (manufacturing) cost	<u>\$ 69,940</u>

b.

Sales commissions	\$ 0.35
Variable administrative expense	0.35
Variable selling and administrative expense per unit	<u>\$ 0.70</u>
Total variable selling and administrative expense (\$0.70 per unit × 5,200 units sold)	\$ 3,640
Total fixed selling and administrative expense (\$0.60 per unit × 5,200 units + \$0.45 per unit × 5,200 units)	5,460
Total period (nonmanufacturing) cost	<u>\$ 9,100</u>

c.

Direct materials	\$ 5.10
Direct labor	3.45
Variable manufacturing overhead	1.40
Sales commissions	0.35
Variable administrative expense	0.35
Variable cost per unit sold	<u>\$ 10.65</u>

d.

Variable cost per unit sold (a)	\$ 10.65
Number of units sold (b)	6,200
Total variable costs (a) × (b)	\$ 66,030

e.

e. Total fixed manufacturing overhead cost	
(\$3.50 per unit × 5,200 units*) (a)	\$18,200
Number of units produced (b)	6,200
Average fixed manufacturing cost per unit produced (a) ÷ (b)	\$ 2.94

*The average fixed manufacturing overhead cost per unit was determined by dividing the total fixed manufacturing overhead cost by 5,200 units.

f.

Fixed manufacturing overhead per unit	\$ 3.50
Number of units produced	5,200
Total fixed manufacturing overhead cost	\$ 18,200

g.

Total variable manufacturing overhead cost	
(\$1.40 per unit × 6,200 units)	\$ 8,680
Total fixed manufacturing overhead cost	
(\$3.50 per unit × 5,200 units*)	18,200
Total manufacturing overhead cost (a)	\$ 26,880
Number of units produced (b)	6,200
Manufacturing overhead per unit (a) ÷ (b)	\$ 4.34

*The average fixed manufacturing overhead cost per unit was determined by dividing the total fixed manufacturing overhead cost by 5,200 units.

h.

Selling price per unit	\$ 22.60
Direct materials	\$ 5.10
Direct labor	3.45
Variable manufacturing overhead	1.40
Sales commissions	0.35
Variable administrative expense	0.35
Variable cost per unit sold	<u>10.65</u>
Contribution margin per unit	<u>\$ 11.95</u>

i.

Direct materials	\$ 5.10
Direct labor	3.45
Direct manufacturing cost per unit (a)	\$ 8.55
Number of units produced (b)	4,200
Total direct manufacturing cost (a) × (b)	\$ 35,910

j.

Total variable manufacturing overhead cost (\$1.40 per unit × 4,200 units)	\$ 5,880
Total fixed manufacturing overhead cost (\$3.50 per unit × 5,200 units*)	<u>18,200</u>
Total indirect manufacturing cost	<u>\$ 24,080</u>

*The average fixed manufacturing overhead cost per unit was determined by dividing the total fixed manufacturing overhead cost by 5,200 units.

k.

Direct materials	\$ 5.10
Direct labor	3.45
Variable manufacturing overhead	<u>1.40</u>
Incremental manufacturing cost	<u>\$ 9.95</u>

References

Worksheet

Learning Objective: 01-01 Understand cost classifications used for assigning costs to cost objects: direct costs and indirect costs.

Learning Objective: 01-04 Understand cost classifications used to predict cost behavior: variable costs, fixed costs, and mixed costs.

TB Problem Qu. 1-275 (Algo) Saxbury Corporation's relevant range of activity...

Learning Objective: 01-02 Identify and give examples of each of the three basic manufacturing cost categories. Learning Objective: 01-05 Understand cost classifications used in making decisions: relevant costs and irrelevant costs.

Difficulty: 2 Medium

Learning Objective: 01-03 Understand cost classifications used to prepare financial statements: product costs and period costs.

TB Problem Qu. 1-296 (Algo) Fanelli Corporation, a merchandising...

Fanelli Corporation, a merchandising company, reported the following results for July:

Number of units sold	6,700	<u>6700</u>
Selling price per unit	\$ 600	4,020,000
Unit cost of goods sold	\$ 419	2,807,300
Variable selling expense per unit	\$ 62	415,400
Total fixed selling expense	\$126,200	→ 126,200
Variable administrative expense per unit	\$ 30	201,000
Total fixed administrative expense	\$208,100	→ 208,100

Cost of goods sold is a variable cost in this company.

Required:

a. Prepare a traditional format income statement for July.

GAAP

S	4,020,000	
CGS	<u>2,807,300</u>	
GP	1,212,700	
S+A	[415,400 126,200 201,000 <u>208,100</u>]	950,700
NI	<u><u>262,000</u></u>	

b. Prepare a contribution format income statement for July.

Var

S	4,020,000	
- VC	[2,807,300 415,400 <u>201,000</u>]	3,423,700
CM	596,300	
- FC	[126,200 <u>208,100</u>]	334,300
NI	<u><u>262,000</u></u>	

Solution to TB Problem Qu. 1-296 (Algo) Fanelli Corporation, a merchandising...

Explanation:

a.

Sales (6,700 units × \$600 per unit) = \$4,020,000

Cost of goods sold (6,700 units × \$419 per unit) = \$2,807,300

Selling expense ((6,700 units × \$62 per unit) + \$126,200) = \$541,600

Administrative expense ((6,700 units × \$30 per unit) + \$208,100) = \$409,100

b.

Sales (6,700 units × \$600 per unit) = \$4,020,000

Cost of goods sold (6,700 units × \$419 per unit) = \$2,807,300

Variable selling expense (6,700 units × \$62 per unit) = \$415,400

Variable administrative expense (6,700 units × \$30 per unit) = \$201,000

References

Worksheet

Difficulty: 2 Medium

TB Problem Qu. 1-296 (Algo) Fanelli Corporation, a merchandising... Learning Objective: 01-06
Prepare income statements for a merchandising company using the traditional and contribution formats.

