

1. Define cost object and give three examples!

**Answer**

A cost object is a product that the costs are measured, calculated, and accumulated separately. Cost objects have 3 types that are:

- Output

The most common cost objects are a company's products and services since it wants to know the cost of its output for profitability analysis and price setting.

For example, a product is the cost object for direct materials, direct labor, and manufacturing overhead.

- Operational

A cost object can be an area or function within a company, such as a department, tooling operation, production line, or process.

For example, a factory maintenance department is a cost object for the cost of the maintenance employees and the maintenance supplies.

- Business Relationship.

A cost object can be outside of a company that may be a need to accumulate costs for a supplier or a customer, to determine the cost of dealing with that entity. Another variation on the concept is the cost of renewing permits or licenses.

**For example:**

Cost object: Samsung

product: Samsung J2 prime

service: Samsung Service Center

Department: Samsung Mobile, Samsung Electronics, Samsung Display

2. What is the main difference between direct costs and indirect costs?

**Answer**

- Direct Costs can be charged directly to a particular product, service, or unit.  
Indirect Costs need to be apportioned among the various departments within the organization by using some method of allocations.
- Direct Costs benefits the single product of project.  
Indirect Costs benefits multiple products of project.

- The total off all the direct costs results in prime costs.  
The result of all the indirect costs is known as overheads.
- Direct Costs is traceable.  
Indirect Costs is not traceable.
- Direct Costs is subdivided into the direct material, direct labour, and direct expense.  
Indirect Costs is subdivided into production overheads, administration overheads, selling overheads, and distribution overheads.

3. Axle and Wheel Manufacturing currently produces 1,000 axles per month. The following per unit data apply for sales to regular customers:

Direct materials	\$200
Direct manufacturing labour	30
Variable manufacturing overhead	60
Fixed manufacturing overhead	<u>40</u>
Total manufacturing costs	<u>\$330</u>

The plant has capacity for 2,000 axles.

**Required:**

- What is the total cost of producing 1,000 axles?
- What is the total cost of producing 1,500 axles?
- What is the per unit cost when producing 1,500 axles?

**Answer**

<b>a.</b> Direct materials (\$200*1000)	\$200.000
Direct manufacturing labour ( \$30*1000)	\$ 30.000
Variable manufacturing overhead (\$60*1000)	\$ 60.000
Fixed manufacturing overhead (\$40*1000)	<u>\$ 40.000 +</u>
Total cost of producing 1,000 axles	<b>\$330.000</b>
 <b>b.</b> Direct materials (\$200*1500)	 \$300.000

Direct manufacturing labour ( \$30*1500)	\$ 45.000
Variable manufacturing overhead (\$60*1500)	\$ 90.000
Fixed manufacturing overhead (\$40*1000)	<u>\$ 40.000+</u>
Total cost of producing 1,500 axles	<b>\$475.000</b>

c. The price per unit:

$$\frac{\text{Total cost}}{\text{Number of quantity}} = \frac{\$475.000}{1500} = \mathbf{\$316,67/unit}$$

4. Angel Inc., had the following activities during 20X5:

Direct materials:

Beginning inventory	\$ 40,000
Purchases	123,200
Ending inventory	20,800
Direct manufacturing labour	32,000
Manufacturing overhead	24,000
Beginning work-in-process inventory	1,600
Ending work-in-process inventory	8,000

**Required:**

- What is the cost of direct materials used during 2020?
- What is cost of goods manufactured for 2020?
- What amount of prime costs was added to production during 2020?
- What amount of conversion costs was added to production during 2020?

**Answer**

a. Direct materials:

Beginning inventory	\$ 40.000
Purchases	<u>\$123.200+</u>
	\$163.200
Ending Inventory	<u>(\$ 20.800)</u>
Total cost of direct material	<b>\$142.400</b>

**b. Direct materials:**

Beginning inventory	\$ 40.000
Purchases of direct	<u>\$123.200+</u>
Cost of Direct Materials Available for Use	\$163.200
Ending Inventory	<u>(\$ 20.800)</u>
Direct Material Used	\$142.400
Direct manufacturing labour	\$ 32.000
Manufacturing overhead	<u>\$ 24.000+</u>
Manufacturing Cost Incurred During 2020	\$198.400
Beginning Work-in-Process Inventory	<u>\$ 1.600+</u>
Total Manufacturing Costs to Account For	\$200.000
Ending Work-in-Process Inventory	<u>(\$ 8.000)</u>
<b>Cost of Goods Manufactured</b>	<b>\$192.000</b>

**c. Prime Cost = Direct material costs + Direct labour costs**

$$\$142.400 + \$32.000 = \mathbf{\$174.400}$$

**d. Conversion Cost = Direct labour costs + Overhead costs**

$$\$32.000 + \$24.000 = \mathbf{\$56.000}$$

5. Tools Manufacturing Company had the following account balances for the quarter ending March 31, unless otherwise noted:

Work-in-process inventory (January 1)	\$ 140,400
Work-in-process inventory (March 31)	171,000
Direct materials used	378,000
Indirect materials used	84,000
Direct manufacturing labour	480,000
Indirect manufacturing labour	186,000
Property taxes on manufacturing plant building	28,800
Salespersons' company vehicle costs	12,000

Depreciation of manufacturing equipment	264,000
Depreciation of office equipment	123,600
Miscellaneous plant overhead	135,000

Plant utilities	92,400
General office expenses	305,400
Marketing distribution costs	30,000

Required:

Prepare a cost of goods manufactured schedule for the quarter.

**Answer (In the below page)**

Tools Manufacturing Company  
Schedule of Cost Goods Manufactured  
For The Quarter Ending March, 31 2020

Direct materials used		\$378.000
Direct manufacturing labour		\$480.000
Manufacturing overhead costs:		
- Indirect materials used	\$ 84.000	
- Indirect manufacturing labour	\$186.000	
- Depreciation of manufacturing equipment	\$264.000	
- Plant utilities	\$ 92.400	
- Miscellaneous plant overhead	\$135.000	
- Property taxes on manufacturing plant building	<u>\$ 28.800+</u>	
Total Manufacturing overhead costs		<u>\$790.200+</u>
Total manufacturing cost incurred		\$1.648.200
Beginning Work-in-process inventory (January 1)		<u>\$ 140.400+</u>
Total manufacturing cost to account for		\$1.788.600
Ending Work-in-process inventory (March 31)		<u>(\$ 171.000)</u>
<b>Cost of goods manufactured</b>		<b>\$1.617.600</b>