

1. Objectives

At the end of this unit , students will be able to:

- Define the terms cost price , selling price, profit and loss.
- Find out the profit or loss amount with the help of CP and SP
- Calculate the profit or loss, cost price, selling price when two of them are given.

2. Materials:

- Diagram of shops and customers
- Pictures to show the relation of profit or loss
- Money and things for practical activities.
- Chart of formula

3. Introduction:

Cost Price (CP): Amount of money which we pay for goods.

Selling Price (SP): Amount in which goods are sold.

Profit: Higher amount of SP than CP.

Loss: Higher amount of cost price than SP.

4. Formulae:

- Profit = SP – CP [ if SP > CP]
- Loss = CP – SP [if CP > SP]
- SP = CP + profit or CP – Loss
- CP = SP – Profit or SP + Loss

- Profit % =  $\frac{\text{Profit}}{CP} \times 100\%$
- Loss % =  $\frac{\text{Loss}}{CP} \times 100\%$

5. Examples:

- a. Ram bought a bicycle for RS5000 and sold it for Rs 6000. Find the profit or loss.

Solution,

Here,

$$CP = \text{Rs } 5000$$

$$SP = \text{Rs } 6000$$

[∴ SP > CP, so here is profit ]

We have,

$$\text{Profit} = SP - CP$$

$$= 6000 - 5000$$

$$= \text{Rs } 1000.$$

∴ The profit amount of Ram is Rs 1000.

- b. Hari purchased a pen for Rs 80 and sold it for Rs 70 find the profit or loss.

Solution,

Here,

$$CP = \text{Rs } 80$$

$$SP = \text{Rs } 70$$

[∴ CP > SP , so here is loss ]

We have,

$$\text{Loss} = CP - SP$$

$$= 80 - 70$$

$$= \text{Rs } 10.$$

∴ The loss amount of Hari is Rs 10.

6. Home Works

- If CP = Rs 85 and SP = Rs 97 than find out the profit or loss.
- If CP = Rs 995 and SP = Rs 991 than find profit or loss.
- If Mr. Ganesh bought a mobile for Rs 5390 and sold it for Rs 6180. Find his profit or loss.
- If Sita purchased a camera for Rs 15700 and sold it for Rs 14900. Find her profit or loss.

1. Objectives

At the end of this unit , students will be able to:

- Calculate the problems involving the unitary method.
- Know three steps of the unitary method.
- Find the value of result of unit item.

2. Materials:

- Chart paper / flash cards
- Exchanging activities

3. Introduction:

The unitary method is the method for solving problems where we calculate the value of articles or goods from the cost of some number of articles or goods and we use it to find the value of more articles or goods. At first we need to find the result of unit to get the result as much as we require by multiplying.

Try to fill up the following table.

Items	Unit price [1kg]	Price of 2kg	Price of 3kg	Price of 10kg
Sugar	Rs 70			
Potato		Rs 80		
Mango			Rs 150	
Onion				Rs 400

4. Examples:

- a. If the cost of 1 copy is Rs 25, find the cost for such 6 copies.

Solution,

Here, Unit Cost of copy = Rs 25

No. of Copies = Rs 6

Total cost = ?

We know, Total cost = unit cost x no. of item

$$= 25 \times 6$$

$$= \text{Rs } 150$$

∴ The cost of 6 copies is Rs 150.

- b. If the cost for 5 kg of sugar is Rs 340, find the cost for 1 kg of sugar and 9 kg of sugar.

Solution,

Here,

Total cost of 5 kg sugar = Rs 340

Cost of 1 kg sugar = ?

Cost of 9 kg sugar = ?

We know,

$$\begin{aligned} \text{Cost of 1 kg sugar} &= \frac{\text{total cost of sugar}}{\text{total kg of sugar}} \\ &= \frac{\text{Rs } 340}{5} \\ &= \text{Rs } 68 \end{aligned}$$

At last, The price of 9 kg sugar = Rs 68 x 9

$$= \text{Rs } 612.$$

5. Homework

- If the cost of 7 pen is Rs 630, find the cost of 1 pen.
- If 17 chocolates cost is Rs 85, what will be the cost of 25 chocolates?
- A shopkeeper sold 90m of wires for Rs 5400. At what price does he sell 5 meters of wire?