Finding Profit and Loss Percent

➡ We often come across newspaper clippings where it shows profit or loss as a percentage.

For example: ABC Ltd. earns 30% profit for the year 2015-2016

The profit% or loss% is calculated on the cost price (C.P.).

To calculate Profit% or Loss%, we use the following relations:

$$\text{Profit \%} = \left(\frac{\text{Profit}}{\text{C.P.}} \times 100\right)\% \qquad \text{Loss \%} = \left(\frac{\text{Loss}}{\text{C.P.}} \times 100\right)\%$$

➡ **Let us understand with some examples:**

Example 1: A shopkeeper bought sugar at the rate of Rs. 35 per kg from the wholesaler. He sold it at Rs. 40 per kg. What is his profit percentage?

Solution: C.P. of sugar = Rs. 35

S.P. of sugar = Rs. 40

Since S.P. > C.P., there is profit.

Profit = S.P. − C.P.

= Rs. 40 − Rs. 35 = Rs. 5

Therefore, profit = Rs. 5

$$\text{Profit \%} = \left(\frac{\text{Profit}}{\text{C. P.}} \times 100\right)\%$$

Profit % = $\left(\frac{5}{35} \times 100\right)$% = 14.2%

Therefore, profit = Rs. 5 and profit percentage = 14.2%

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Example 2: A shopkeeper buys a juicer for Rs. 1000 and sells it for Rs. 750. Find the loss/profit and loss/profit percentage.

Solution: C.P. of juicer = Rs. 1000

S.P. of juicer = Rs. 750

Since C.P. > S.P., there is loss.

Loss = C.P. − S.P.

= Rs. 1000 −Rs. 750 = Rs. 250

Therefore, loss = Rs. 250

$$\text{Loss \%} = \left(\frac{\text{Loss}}{\text{C.P.}} \times 100\right)\%$$

$\text{Loss \%} = \left(\frac{250}{1000} \times 100\right)\%$ = 25%

Therefore, loss = Rs. 250 and loss percentage = 25%