

Recall:

- The selling price is the price at which the item is being sold for by the person selling it (seller)
- The cost price is the price in which the seller buys the item at.

Profit occurs whenever the selling price (SP) of an item exceeds (is greater than) the cost price (CP) of the item and a loss occurs when the cost price exceeds the selling price of the item. For example, if a merchant paid \$3.50 for a calculator and sold it for \$5.00, he would have made a profit of \$1.50. If on the other hand he sold the calculator for \$3 he would have incurred a loss of 50¢.

To calculate the profit or the loss subtract as follows:

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

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

Calculating the percentage profit or percentage loss

$$\text{Percentage profit} = \frac{\text{profit}}{\text{cost price}} \times 100\% \quad \text{or} \quad \text{Percentage profit} = \frac{\text{SP} - \text{CP}}{\text{cost price}} \times 100\%$$

$$\text{Percentage loss} = \frac{\text{loss}}{\text{cost price}} \times 100\% \quad \text{or} \quad \text{Percentage loss} = \frac{\text{CP} - \text{SP}}{\text{cost price}} \times 100\%$$

Example: Jonathan bought a house at \$250 000 and later sold it for \$300 000. What was his percentage profit or percentage loss?

Solution

$$\text{CP} = \$250\,000$$

$$\text{SP} = \$300\,000 \quad \text{SP greater than CP, therefore a Profit}$$

$$\text{Profit} = \$300\,000 - \$250\,000 = \$50\,000$$

$$\text{Percentage profit} = \frac{\$50\,000}{\$250\,000} \times \frac{100\%}{1} = \frac{5\,000\,000\%}{250\,000} = 20\%$$

Or

$$\text{Percentage profit} = \frac{\$300\,000 - \$250\,000}{\$250\,000} \times \frac{100\%}{1} = \frac{\$50\,000}{\$250\,000} \times \frac{100\%}{1} = \frac{5\,000\,000\%}{250\,000} = 20\%$$