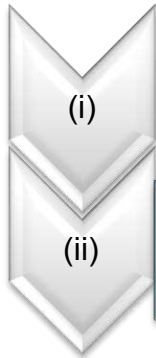


PERCENT AND PERCENTAGE

Percent means for every hundred, abbreviated as p.c. and denoted by the symbol "%"

A fraction whose denominator is 100 is called a percentage, and the numerator of such fraction is called the "rate percent."



(i)

- To express a given number as percent, multiply by 100 and in same step attach the percentage symbol (%)

Ex: $\frac{3}{5} \gg \frac{3}{5} \times 100 = 60\%$

Ex: $0.45 \times 100 = 45\%$

(ii)

- To express a given percent into fraction, divide by 100 and in the same step remove the symbol of percentage

Ex: $45\% = \frac{45}{100} = \frac{9}{20}$ (*fraction*)

$= 0.45$ (*decimal*)

x x as the percent of $y = \frac{x}{y} \times 100$

x y as the percent of $x = \frac{y}{x} \times 100$

x **Increase** % = $\frac{\text{Increase in Quantity}}{\text{Original Quantity}} \times 100\%$

x **Decrease** % = $\frac{\text{Decrease in Quantity}}{\text{Original Quantity}} \times 100\%$

x **If a number is increased by $x\%$, the new number**

$= \left(\frac{100+x}{100}\right) \times \text{the original number}$

x **If a number is decreased by $x\%$, the new number**

$= \left(\frac{100-x}{100}\right) \times \text{the original number}$