

Class - 7th

Subject - math

Date - 16/01/2024

Chapter - 10

Percentage  $\div$  The word 'percent' is derived from Latin phrase 'per centum' meaning 'per hundred'. Percent is represented by the symbol % and means hundredths.

For example:

$$\frac{70}{100} = 70 \times \frac{1}{100} = 70 \text{ per hundred} = 70\%$$

$$\frac{40}{100} = 40 \times \frac{1}{100} = 40 \text{ per hundred} = 40\%$$

To convert a Fraction and a Decimal into a percentage:

Rule:- In order to convert a fraction and a decimal into a percentage we multiply them by 100 and put the symbol % with their simplified form.

Example 1. Convert each of the following into a percentage:

(i)  $\frac{7}{25}$

(ii) 0.5

Solution (i)  $\frac{7}{25} = \left( \frac{7 \times 100}{25} \right) \% = 28\%$



$$(ii) \quad 0.5 = (0.5 \times 100)\% = 50.0\% = 50\%$$

\* To convert a Percentage into a fraction and a Decimal :-

Rule :- We divide the given number by 100 and remove the sign of percent

$$\left[ \text{e.g. } x\% = \frac{x}{100} \right]$$

Example 2 :- Convert each of the following into as fractions in the simplest form.

$$(i) \quad 75\% \quad (ii) \quad 0.55\% \quad (iii) \quad \frac{15}{2}\%$$

Solutions :-

$$(i) \quad 75\% = \frac{75}{100} = \frac{3}{4}$$

$$(ii) \quad 0.55\% = \frac{0.55}{100} = \frac{55}{100 \times 100} = \frac{11}{2000}$$

$$(iii) \quad \frac{15}{2}\% = \frac{15}{2 \times 100} = \frac{3}{2 \times 20} = \frac{3}{40}$$



Time

① Express each of the following as fractions in the simplest form:

- (i) 75%    (ii) 0.25%    (iii)  $\frac{15}{8}\%$     (iv) 140%  
(v) 0.55%

② Express each of the following as a ratio in the simplest form:-

- (i) 12%    (ii) 0.25%    (iii) 25%  
(iv) 26%    (v)  $13\frac{1}{3}\%$

③ Express the following as decimals:

- (i) 125%    (ii) 45%    (iii) 2.5%  
(iv)  $\frac{1}{4}\%$     (v)  $6\frac{1}{4}\%$