Exercise 10A

Q13

Answer :

3% of $x = 9$

$\Rightarrow \left(\frac{3}{100} \times x\right) = 9$

$\Rightarrow x = \left(9 \times \frac{100}{3}\right) = 300$

Hence, the value of x is 300.

Q14

Answer :

12.5% of $x = 6$

$\Rightarrow \left(\frac{12.5}{100} \times x\right) = 6$

$\Rightarrow x = \left(6 \times \frac{100}{12.5}\right) = (6 \times 8) = 48$

Hence, the value of x is 48.

Q15

Answer :

Let x% of 84 be 14.

Then, $\left(\frac{x}{100} \times 84\right) = 14$

$\Rightarrow \frac{21x}{25} = 14$

$\Rightarrow x = \left(14 \times \frac{25}{21}\right) = \left(\frac{2 \times 25}{3}\right) = \frac{50}{3} = 16\frac{2}{3}\%$

Hence, $16\frac{2}{3}\%$ of 84 is 14.

Q16

Answer :

(i) Let x% of Rs 120 be Rs 15.

Then, Rs $\left(\frac{x}{100} \times 120\right)$ = Rs 15

$\Rightarrow \left(\frac{6x}{5}\right) = 15$

$\therefore x = \left(\frac{15 \times 5}{6}\right)\% = \left(\frac{25}{2}\right)\% = 12.5\%$

Hence, 12.5% of Rs 120 is Rs 15.

(ii) Let x% of 2 h be 36 min.

Then, $\left(\frac{x}{100} \times 2 \times 60\right)$ min = 36 min

$\Rightarrow \left(\frac{120x}{100}\right) = 36$

$\therefore x = \left(\frac{36 \times 100}{120}\right)\% = 30\%$

Hence, 30% of 2 h is 36 min.

(iii) Let x% of 2 days be 8 h.

Then, $\left(\frac{x}{100} \times 2 \times 24\right)$ h = 8 h

$\Rightarrow \left(\frac{48x}{100}\right) = 8$

$\therefore x = \left(\frac{8 \times 100}{48}\right)\% = 16\frac{2}{3}\%$

Hence, $16\frac{2}{3}\%$ of 2 days is 8 h.

(iv) Let x% of 4 km be 160 m.

Then, $\left(\frac{x}{100} \times 4 \times 1000\right)$ m = 160 m

$\Rightarrow 40x = 160$

$\therefore x = \left(\frac{160}{40}\right)\% = 4\%$

Hence, 4% of 4 km is 160 m.

(v) Let x% of 1 L be 175 mL.

Then, $\left(\frac{x}{100} \times 1 \times 1000\right)$ mL = 175 mL

$\Rightarrow 10x = 175$

$\therefore x = \left(\frac{175}{10}\right)\% = 17.5\%$

Hence, 17.5% of 1 L is 175 mL.

(vi) Let x% of Rs 4 be 25 paise.

Then, $\left(\frac{x}{100} \times 4 \times 100\right)$ paise = 25 paise

$\Rightarrow 4x = 25$

$\therefore x = \left(\frac{25}{4}\right)\% = 6\frac{1}{4}\%$

Hence, $6\frac{1}{4}\%$ of Rs 4 is 25 paise.

********** END **********