Exercise 10A

Q7

Answer :

We have:

(i) 32% of 425 = $\left(\frac{32}{100} \times 425\right) = \left(\frac{32 \times 17}{4}\right) = (8 \times 17) = 136$

(ii) $16\frac{2}{3}$ % of 16 = $\frac{50}{3}$ % of 16 = $\left(\frac{50}{3 \times 100} \times 16\right) = \left(\frac{1}{6} \times 16\right) = \frac{8}{3} = 2\frac{2}{3}$

(iii) 6.5% of 400 = $\left(\frac{6.5}{100} \times 400\right) = \left(\frac{65}{10 \times 100} \times 400\right) = \left(\frac{65 \times 4}{10}\right) = \frac{260}{10} = 26$

(iv) 136% of 70 = $\left(\frac{136}{100} \times 70\right) = \left(\frac{136 \times 7}{10}\right) = \left(\frac{952}{10}\right) = 95.2$

(v) 2.8% of 35 = $\left(\frac{2.8}{100} \times 35\right) = \left(\frac{28}{10 \times 100} \times 35\right) = \left(\frac{14 \times 7}{100}\right) = \frac{98}{100} = 0.98$

(vi) 0.6% of 45 = $\left(\frac{0.6}{100} \times 45\right) = \left(\frac{6}{10 \times 100} \times 45\right) = \left(\frac{3 \times 45}{5 \times 100}\right) = \left(\frac{3 \times 9}{100}\right) = \frac{27}{100} = 0.27$

Q8

Answer :

We have the following:

(i) 25% of Rs 76 = Rs $\left(76 \times \frac{25}{100}\right)$ = Rs $\left(76 \times \frac{1}{4}\right)$ = Rs 19

(ii) 20% of Rs 132 = Rs $\left(132 \times \frac{20}{100}\right)$ = Rs $\left(132 \times \frac{1}{5}\right)$ = Rs 26.4

(iii) 7.5% of 600 m = $\left(600 \times \frac{7.5}{100}\right)$ m $= (6 \times 7.5)$ m $= 45$ m

(iv) $3\frac{1}{3}$ % of 90 km = $\frac{10}{3}$ %of 90 km = $\left(90 \times \frac{10}{3 \times 100}\right)$ km $= \left(90 \times \frac{1}{30}\right)$ km $= 3$ km

(v) 8.5% of 5 kg = $\left(5 \times \frac{8.5}{100}\right)$ kg $= \left(5 \times \frac{85}{1000}\right)$ kg $= 0.425$ kg $= 425$ g [$\because$1 kg = 1000 g]

(vi) 20% of 12 L = $\left(12 \times \frac{20}{100}\right)$ L $= \left(12 \times \frac{1}{5}\right)$ L $= 2.4$ L

Q9

Answer :

Let x be the required number.

Then, 13% of x = 65

$\Rightarrow \left(\frac{13}{100} \times x\right) = 65$

$\Rightarrow x = \left(65 \times \frac{100}{13}\right) = 500$

Hence, the required number is 500.

Q10

Answer :

Let x be the required number.

Then, $6\frac{1}{4}\%$ of x = 2

$\Rightarrow \left(6\frac{1}{4}\% \times x\right) = 2$

$\Rightarrow \left(\frac{25}{400} \times x\right) = 2$

$\Rightarrow x = \left(2 \times \frac{400}{25}\right) = 32$

Hence, the required number is 32.

Q11

Answer :

10% of Rs 90 = Rs $\left(\frac{10}{100} \times 90\right)$ = Rs 9

∴ Amount that is 10% more than Rs 90 = Rs (90 + 9) = Rs 99

Hence, the required amount is Rs 99.

Q12

Answer :

20% of Rs 60 = Rs $\left(60 \times \frac{20}{100}\right)$ = Rs 12

∴ Amount that is 20% less than Rs 60 = Rs (60 − 12) = Rs 48

Hence, the required amount is Rs 48.

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