Exercise 10C

Q1

Answer :

(b) 75%

$\frac{3}{4} = \left(\frac{3}{4} \times 100\right)\% = 75\%$

Q2

Answer :

(c) 40%

$2 : 5 = \frac{2}{5} = \left(\frac{2}{5} \times 100\right)\% = 40\%$

Q3

Answer :

(c) $\frac{1}{12}$

$8\frac{1}{3}\% = \frac{25}{3}\% = \left(\frac{25}{3} \times \frac{1}{100}\right) = \left(\frac{1}{3 \times 4}\right) = \frac{1}{12}$

Q4

Answer :

(c) 12

We have x% of 75 = 9

$\Rightarrow \left(\frac{x}{100} \times 75\right) = 9$

$\therefore x = \left(\frac{9 \times 100}{75}\right) = 12$

Hence, the value of x is 12

Q5

Answer :

(d) 10%

Let x be the required percent.

Then, x % of $\frac{2}{7} = \frac{1}{35}$

$\Rightarrow \left(\frac{x}{100} \times \frac{2}{7}\right) = \frac{1}{35}$

$\therefore x = \left(\frac{100 \times 7}{35 \times 2}\right) = 10$

Hence, 10% of $\frac{2}{7}$ is $\frac{1}{35}$

Q6

Answer :

(b) 2.5%

Let x % of 1 day be 36 min.

Then, $\left(\frac{x}{100} \times 1 \times 24 \times 60\right)$ min = 36 min

$\therefore x = \left(\frac{36 \times 100}{24 \times 60}\right) = \left(\frac{3 \times 5}{2 \times 3}\right)\% = \left(\frac{5}{2}\right)\% = 2.5\%$

Hence, 2.5% of 1 day is 36 min.

Q7

Answer :

(a) 35

Let the required number be x.

Then, x + 20% of x = 42

$\Rightarrow \left(x + \frac{20x}{100}\right) = 42$

$\Rightarrow \left(x + \frac{x}{5}\right) = 42$

$\Rightarrow \left(\frac{5x+x}{5}\right) = 42$ [∵ LCM of 1 and 5 = 5]

$\Rightarrow \left(\frac{6x}{5}\right) = 42$

$\therefore x = \left(\frac{42\times5}{6}\right) = 35$

Hence, the required number is 35.

Q8

Answer :

(b) 75

Let the required number be x.

Then, x – 8% of x = 69

$\Rightarrow \left(x - \frac{8x}{100}\right) = 69$

$\Rightarrow \left(x - \frac{2x}{25}\right) = 69$

$\Rightarrow \left(\frac{25x-2x}{25}\right) = 69$ [Since L.C.M. of 1 and 25 = 25]

$\Rightarrow \left(\frac{23x}{25}\right) = 69$

$\therefore x = \left(\frac{69\times25}{23}\right) = 75$

Hence, the required number is 75

Q9

Answer :

(d) 8 kg

Let x kg be the required amount of ore.

Then, 5% of x kg = 400 g = 0.4 kg [∵ 1 kg = 1000 g]

$\Rightarrow \left(\frac{5}{100} \times x\right) = 0.4$

$\Rightarrow x = \left(\frac{0.4\times100}{5}\right) = 8$

Hence, 8 kg of ore is required to obtain 400 g of copper.

Q10

Answer :

(b) Rs. 20000

Suppose that the gross value of the TV is Rs x.

Commission on the TV = 10%

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