



Exercise 9A

Q1

Answer :

(i) 48%

$$= \frac{48}{100}$$

$$= \frac{12}{25}$$

(ii) 220%

$$= \frac{220}{100}$$

$$= \frac{11}{5}$$

(iii) 2.5%

$$= \frac{2.5}{100}$$

$$= \frac{25}{1000}$$

$$= \frac{1}{40}$$

Q2

Answer :

$$(i) \quad 6\% = \frac{6}{100} = 0.06$$

$$(ii) \quad 72\% = \frac{72}{100} = 0.72$$

$$(iii) \quad 125\% = \frac{125}{100} = 1.25$$

Q3

Answer :

$$\begin{aligned}(i) \quad & \frac{9}{25} \\ &= \left(\frac{9}{25} \times 100 \right) \% \\ &= (9 \times 4) \% \\ &= 36\%\end{aligned}$$

$$(ii) \quad \frac{3}{125}$$

$$\begin{aligned} &= \left(\frac{3}{125} \times 100 \right) \% \\ &= 2.4\% \end{aligned}$$

$$\begin{aligned} \text{(iii)} \quad &\frac{12}{5} \\ &= \left(\frac{12}{5} \times 100 \right) \% \\ &= 240\% \end{aligned}$$

Q4

Answer :

$$\begin{aligned} 4 : 5 &= \frac{4}{5} = \left(\frac{4}{5} \times 100 \right) \% \\ &= 80\% \end{aligned}$$

Q5

Answer :

$$\begin{aligned} & 125\% \\ &= \frac{125}{100} \\ &= \frac{5}{4} = 5 : 4 \end{aligned}$$

Q6

Answer :

We have :

$$\begin{aligned} 6\frac{2}{3}\% &= \frac{20}{3}\% \\ &= \left(\frac{20}{3} \times \frac{1}{100}\right) \\ &= \frac{1}{15} \\ &= 0.06 \end{aligned}$$

$$\text{Also, } \frac{3}{20} = 0.15$$

The third number is 0.14.

Clearly, 0.15 is the largest.

Hence, $\frac{3}{20}$ is the largest.

Q7

Answer :

$$(i) \text{ Required percentage} = \left(\frac{96}{150} \times 100\right)\% = 64\%$$

$$(ii) \text{ Required percentage} = \left(\frac{200}{5 \times 1000} \times 100\right)\% = 4\%$$

(iii) Required percentage = $\left(\frac{250}{2 \times 1000} \times 100\right)\% = 12.5\%$

Q8

Answer :

$$4\frac{1}{2}\% = \frac{9}{2 \times 100}$$

$$\therefore \frac{9}{200} \text{ of Rs } 3600 = \frac{9}{200} \times 3600 = \text{Rs } 162$$

Q9

Answer :

Let the number be x .

16% of x is 72.

$$\Rightarrow \frac{16}{100} \times x = 72$$

$$\Rightarrow 16x = 72 \times 100$$

$$\Rightarrow 16x = 7200$$

$$\Rightarrow x = \frac{7200}{16} = 450$$

\therefore The required number is 450.

Q10

Answer :

Let Rs x be his monthly income.

His savings = 18% of Rs x

$$= \text{Rs} \left(x \times \frac{18}{100} \right)$$

$$= \text{Rs} \frac{9x}{50}$$

$$\text{Now, } \frac{9x}{50} = 1890$$

$$\Rightarrow x = \text{Rs} \left(1890 \times \frac{50}{9} \right)$$

$$\Rightarrow x = \text{Rs } 10500$$

\therefore His monthly income is Rs. 10500.

Q11

Answer :

Let x be the total number of games played.

Percentage of games won = 35% of x

$$\begin{aligned} &= \left(x \times \frac{35}{100} \right) \\ &= \frac{35x}{100} \end{aligned}$$

Now, $\frac{35x}{100} = 7$

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

$$\Rightarrow x = 20$$

\therefore The total number games played is 20.

Q12

Answer :

Let Rs x be Amit's old salary.

His salary after increment will be Rs $\left(x + \frac{20}{100} x \right)$

According to the question, we have :

$$\Rightarrow x + \frac{20}{100} x = 15300$$

$$\Rightarrow \frac{100x + 20x}{100} = 15300 \quad (\text{LCM} = 100)$$

$$\Rightarrow \frac{120x}{100} = 15300$$

$$\Rightarrow 120x = 15300 \times 100$$

$$\Rightarrow x = \frac{15300 \times 100}{120}$$

$$\Rightarrow x = 12750$$

\therefore The old salary is Rs 12,750.

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