



Exercise 12A

Q12

Answer :

$$P = \text{Rs } 6000, R = 12\%, T = 3 \text{ years } 8 \text{ months} = 3 \frac{8}{12} = \frac{44}{12} \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{6000 \times 12 \times 44}{100 \times 12} = \text{Rs } 2640$$

$$\begin{aligned} A &= P + \text{S.I.} \\ &= 6000 + 2640 \\ &= \text{Rs } 8640 \end{aligned}$$

Q13

Answer :

$$P = \text{Rs. } 12600 \quad R = 15\% \quad T = 3 \text{ years}$$

$$\begin{aligned} \text{S.I.} &= \frac{P \times R \times T}{100} = \frac{12600 \times 15 \times 3}{100} \\ &= \text{Rs. } 5670 \end{aligned}$$

$$A = \text{Rs. } 12600 + \text{Rs. } 5670 = \text{Rs. } 18270$$

Hari had to pay Rs. 18270 to the money lender, but he paid Rs. 7070 and a goat.

$$\begin{aligned} \therefore \text{Cost of the goat} &= \text{Rs. } 18270 - \text{Rs. } 7070 \\ &= \text{Rs. } 11200 \end{aligned}$$

Q14

Answer :

Let the sum be Rs. P.

S.I. = Rs. 829.50, T = 3 years, R = 10%

$$\begin{aligned}\text{Now, } P &= \frac{S.I \times 100}{R \times T} \\ &= \frac{829.50 \times 100}{10 \times 3} \\ &= \frac{8295}{3} \\ &= 2765\end{aligned}$$

Hence, the sum is Rs. 2765.

Q15

Answer :

Let the required sum be Rs. x .

A = Rs. 3920, R = $7\frac{1}{2}\%$, T = 3 years

Now,

$$\text{Now, S.I.} = \frac{P \times R \times T}{100} = \frac{x \times 15 \times 3}{2 \times 100} = \frac{9x}{40}$$

$$A = P + \text{S.I.}$$

$$= x + \frac{9x}{40} = \frac{40x + 9x}{40} = \frac{49x}{40}$$

But the amount is Rs. 3920.

$$\Rightarrow \frac{49x}{40} = 3920$$

$$\Rightarrow x = \frac{3920 \times 40}{49} = \frac{156800}{49} = 3200$$

Hence, the required sum is Rs. 3200.

Q16

Answer :

Given: $R=11\%$, $T=2$ years 3 months $= 2 + \frac{3}{12} = \frac{27}{12}$ years

Let the required sum be Rs. x .

$$S.I. = \frac{P \times R \times T}{100} = \frac{x \times 11 \times \frac{27}{12}}{100} = \frac{99x}{400}$$

$$A = P + S.I.$$

$$= x + \frac{99x}{400} = \frac{400x + 99x}{400} = \frac{499x}{400}$$

But the amount is Rs. 4491.

$$\Rightarrow \frac{499x}{400} = 4491$$

$$\Rightarrow x = \frac{4491 \times 400}{499} = \frac{1796400}{499} = 3600$$

Hence, the required sum is Rs. 3600.

$$\therefore S.I. = \frac{P \times R \times T}{100} = \frac{3600 \times 11 \times 3}{100} = \text{Rs. } 1188$$

$$\therefore \text{Amount} = P + S.I. = 3600 + 1188 \\ = \text{Rs. } 4788$$

Q17

Answer :

Let the required sum be Rs. x .

$$S.I. = \frac{P \times R \times T}{100} = \frac{x \times 8 \times 2}{100} = \frac{16x}{100}$$

$$A = P + S.I.$$

$$= x + \frac{16x}{100} = \frac{100x + 16x}{100} = \frac{116x}{100}$$

But the amount is Rs. 12122.

$$\Rightarrow \frac{116x}{100} = 12122$$

$$\Rightarrow x = \frac{12122 \times 100}{116} = 10450$$

***** END *****