



Exercise 12A

Q1

**Answer :**

$$P = \text{Rs. } 6400, R = 6\%, T = 2 \text{ years}$$

$$\begin{aligned} \text{S.I.} &= \frac{P \times R \times T}{100} = \frac{6400 \times 6 \times 2}{100} \\ &= \text{Rs. } 768 \end{aligned}$$

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

$$= 6400 + 768$$

$$= \text{Rs. } 7168$$

Q2

**Answer :**

$$P = \text{Rs. } 2650, R = 8\%, T = 2\frac{1}{2} \text{ years} = \frac{5}{2} \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{2650 \times 8 \times 5}{100 \times 2}$$

$$= \text{Rs. } 530$$

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

$$= 2650 + 530$$

$$= \text{Rs. } 3180$$

Q3

**Answer :**

$$P = \text{Rs. } 1500, R = 12\%, T = 3 + \frac{3}{12} = \frac{13}{4} \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{1500 \times 12 \times 13}{100 \times 4}$$

$$= \text{Rs. } 585$$

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

$$= 1500 + 585$$

$$= \text{Rs. } 2085$$

Q4

**Answer :**

$$P = \text{Rs. } 9600$$

$$R = 7\frac{1}{2} \%$$

$$T = 5 \text{ months} = \frac{5}{12} \text{ years}$$

$$\begin{aligned} \text{S.I.} &= \frac{P \times R \times T}{100} \\ &= \frac{9600 \times 15 \times 5}{100 \times 2 \times 12} \\ &= \text{Rs. } 300 \end{aligned}$$

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

$$= 9600 + 300$$

$$= \text{Rs. } 9900$$

Q5

**Answer :**

$$P = \text{Rs. } 5000, R = 9\%, T = 146 \text{ days} = \frac{146}{365} \text{ years}$$

$$\begin{aligned} \text{S.I.} &= \frac{P \times R \times T}{100} = \frac{5000 \times 9 \times 146}{100 \times 365} \\ &= \text{Rs. } 180 \end{aligned}$$

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

$$= 5000 + 180$$

$$= \text{Rs. } 5180$$

Q6

**Answer :**

$$P = \text{Rs. } 6400, \text{S.I.} = \text{Rs. } 1152, R = 6\%$$

$$\begin{aligned}
 T &= \frac{S.I. \times 100}{P \times R} = \frac{1152 \times 100}{6400 \times 6} \\
 &= \frac{1152}{384} \\
 &= 3 \text{ years}
 \end{aligned}$$

Q7

**Answer :**

$$P = \text{Rs. } 9540, \text{ S.I.} = \text{Rs. } 1908, R = 8\%$$

$$\begin{aligned}
 T &= \frac{S.I. \times 100}{P \times R} = \frac{1908 \times 100}{9540 \times 8} \\
 &= \frac{10}{4} \\
 &= 2 \frac{1}{2} \text{ years}
 \end{aligned}$$

Q8

**Answer :**

$$P = \text{Rs. } 5000, A = \text{Rs. } 6450, R = 12\%$$

$$\begin{aligned}
 S.I. &= A - P \\
 &= 6450 - 5000 \\
 &= \text{Rs. } 1450
 \end{aligned}$$

$$\begin{aligned}
 T &= \frac{S.I. \times 100}{P \times R} = \frac{1450 \times 100}{5000 \times 12} \\
 &= \frac{29}{12} \\
 &= 2 \frac{5}{12} \\
 &= 2 \text{ years } 5 \text{ months}
 \end{aligned}$$

Q9

**Answer :**

$$P = \text{Rs. } 8250, \text{ S.I.} = \text{Rs. } 1100, T = 2 \text{ years}$$

$$R = \frac{\text{S.I.} \times 100}{P \times T} = \frac{1100 \times 100}{8250 \times 2}$$
$$= \frac{1100}{165} = 6.67\%$$

Q10

**Answer :**

$$P = \text{Rs. } 5200, \text{ S.I.} = \text{Rs. } 975 \quad [T = 2\frac{1}{2} \text{ years} = \frac{5}{2} \text{ years}]$$

$$R = \frac{\text{S.I.} \times 100}{P \times T} = \frac{975 \times 100 \times 2}{5200 \times 5}$$
$$= \frac{195}{26}$$

$$= 7.5\%$$

Q11

**Answer :**

$$P = \text{Rs. } 3560, A = \text{Rs. } 4521.20, T = 3 \text{ years}$$

$$\text{S.I.} = A - P = 4521.20 - 3560$$

$$= \text{Rs. } 961.20$$

$$R = \frac{\text{S.I.} \times 100}{P \times T} = \frac{961.20 \times 100}{3560 \times 3}$$

$$= \frac{96120 \times 100}{100 \times 3560 \times 3}$$

$$= 9\%$$

\*\*\*\*\* END \*\*\*\*\*