



Compound Interest Ex 14.3 Q18

Answer :

Let the sum be P.

Thus, we have :

$$A = P \left(1 + \frac{R}{100} \right)^n$$

$$5,832 = P \left(1 + \frac{8}{100} \right)^2$$

$$5,832 = 1.1664P$$

$$P = \frac{5,832}{1.1664}$$

$$= 5,000$$

Thus, the required sum is Rs 5,000.

Compound Interest Ex 14.3 Q19

Answer :

Let the sum be P.

Thus, we have :

$$CI - SI = 360$$

$$\left[P \left(1 + \frac{R}{100} \right)^n - P \right] - \frac{P \times 7.5 \times 2}{100} = 360$$

$$P \left[\left(1 + \frac{7.5}{100} \right)^2 - 1 \right] - \frac{P \times 7.5 \times 2}{100} = 360$$

$$P[1.155625 - 1] - 0.15P = 360.155625P - 0.15P = 360.005625P = 360P = \frac{360}{0.005625} P$$

$$= 64000 \text{ Thus, the required sum is Rs } 64,000.$$

Compound Interest Ex 14.3 Q20

Answer :

Given :

$$CI - SI = 46$$

$$P \left[\left(1 + \frac{R}{100} \right)^n - 1 \right] - \frac{PRT}{100} = 46$$

$$P \left[\left(1 + \frac{20}{300} \right)^3 - 1 \right] - \frac{P \times 20 \times 3}{3 \times 100} = 46$$

$$\frac{4,096}{3,375} P - \frac{P}{5} - P = 46$$

$$\frac{(4,096 - 3,375 - 675)P}{3,375} = 46$$

$$P = 46 \times \frac{3,375}{46}$$
$$= 3,375$$

Thus, the required sum is Rs 3,375.

***** END *****