



Compound Interest Ex 14.2 Q2

Answer :

Given :

$P = \text{Rs } 2,400$

$R = 20\% \text{ p.a.}$

$n = 3 \text{ years}$

We know that amount A at the end of n years at the rate $R\%$ per annum when the interest is

compounded annually is given by $A = P \left(1 + \frac{R}{100} \right)^n$.

$$\begin{aligned}\therefore A &= 2,400 \left(1 + \frac{20}{100} \right)^3 \\ &= 2,400(1.2)^3 \\ &= 4,147.20\end{aligned}$$

Thus, the required amount is Rs 4,147.20.

Compound Interest Ex 14.2 Q3

Answer :

Given :

$P = \text{Rs } 16,000$

$R = 12.5\% \text{ p.a.}$

$n = 3 \text{ years}$

We know that amount A at the end of n years at the rate $R\%$ per annum when the interest is

compounded annually is given by $A = P \left(1 + \frac{R}{100} \right)^n$.

$$\begin{aligned}\therefore A &= 16,000 \left(1 + \frac{12.5}{100} \right)^3 \\ &= 16,000(1.125)^3 \\ &= 22,781.25\end{aligned}$$

Thus, the required amount is Rs 22,781.25.

Compound Interest Ex 14.2 Q4

Answer :

Given :

$P = \text{Rs } 1,000$

$R = 10\% \text{ p.a.}$

$n = 2 \text{ years}$

We know that amount A at the end of n years at the rate $R\%$ per annum when the interest is

compounded annually is given by $A = P \left(1 + \frac{R}{100} \right)^n$.

$$\begin{aligned}\therefore A &= 1,000 \left(1 + \frac{10}{100} \right)^2 \\ &= 1,000(1.1)^2 \\ &= 1,210\end{aligned}$$

Thus, the required amount is Rs 1,210.

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