Simple Interest Ex 12.1 Q17

Answer :

Cost of 1 dozen roses = Rs. 2
Number of roses bought by the florist = 100 dozens
Thus, cost price of 100 dozen roses = 2 × 100 = Rs. 200

Roses left after discarding the mutilated ones = 80 dozens

Calculating the price at which the florist should sell the 80 dozen roses in order to make a profit of 20%, we have

$$\frac{\text{Profit \%}}{100} = \frac{SP - CP}{CP}$$
$$\frac{20}{100} = \frac{SP - 200}{200}$$
$$SP = Rs.\ 240$$

Therefore, the SP of the roses should be Rs. 240/80 = Rs. 3 per dozen.

Simple Interest Ex 12.1 Q18

Answer :

Let CP = Rs. x
SP = Rs. 240
Let profit be Rs. P.

Now, profit % = 20%
Since
Profit % = (Profit/CP) × 100
$\Rightarrow$ 20 = (P/x) × 100
$\Rightarrow$ P = 20x/100 = x/5

Profit = SP - CP = 240 - x
$\Rightarrow$ P = 240 - x
$\Rightarrow$ x/5 = 240 - x
$\Rightarrow$ 240 = x + x/5
$\Rightarrow$ 240 = 6x/5
$\Rightarrow$ x = 1200/6 = 200
So, CP = Rs. 200

New SP = Rs. 275 and CP = Rs. 200
Profit % = {(SP - CP)/CP} × 100 = {(275 - 200)/200} × 100 = (75/200) × 100
= 7500/200 = 37.5%

*********** END *********