



Profit, Loss, Discount, Value Added Tax (VAT) Ex 13.1 Q11

Answer :

Let the cost price of one orange be Rs. C, and its selling price be Rs. S

Therefore, $16C = 18S$

$$C = \frac{18}{16} S$$

As cost price is more than the selling price,

$$S.P. = \left(\frac{100 - \text{loss \%}}{100} \right) C.P$$

$$S = \left(\frac{100 - \text{loss \%}}{100} \right) C$$

$$\frac{S}{C} = \left(\frac{100 - \text{loss \%}}{100} \right)$$

$$\frac{16}{18} = \left(\frac{100 - \text{loss \%}}{100} \right)$$

$$\frac{1600}{18} = 100 - \text{loss \%}$$

$$\text{Loss \%} = 100 - \frac{1600}{18}$$

$$\text{Loss \%} = \frac{1800 - 1600}{18}$$

$$= \frac{200}{18} = \frac{100}{9}$$

$$= 11 \frac{1}{9}$$

Therefore, the loss percent is $11 \frac{1}{9} \%$.

Profit, Loss, Discount, Value Added Tax (VAT) Ex 13.1 Q12

Answer :

Let the cost price of the motorcycle for Ravish be Rs. x.

Loss % = 28%

$$\text{Therefore, SP} = \text{CP} \left(\frac{100 - \text{Loss \%}}{100} \right)$$

$$\text{SP} = \text{Rs. } x \left(\frac{72}{100} \right)$$

Selling price of the motorcycle for Ravish = Cost price of the motorcycle for Vineet

Money spent on repairs = Rs. 1680

Therefore, total cost price of the motorcycle for Vineet = Rs. $\left(x \left(\frac{72}{100} \right) + 1680 \right)$

Selling price of the motorcycle for Vineet = Rs. 35910

Profit % = 12.5%

$$\text{SP} = \text{CP} \left(\frac{\text{Profit \%} + 100}{100} \right)$$

$$\Rightarrow 35910 = \left(\frac{72x}{100} + 1680 \right) \left(\frac{12.5 + 100}{100} \right)$$

$$\Rightarrow 35910 \times 100 \times 100 = (72x + 168000) (112.5)$$

$$\Rightarrow 359100000 = 8100x + 18900000$$

$$\Rightarrow 340200000 = 8100x$$

$$\Rightarrow x = \text{Rs. } 42000$$

Therefore, Ravish bought the motorcycle for Rs. 42000

***** END *****