



Profit, Loss, Discount, Value Added Tax (VAT) Ex 13.1 Q21

Answer :

Let the S.P of the tricycle be Rs. x and C.P be Rs. y

$$\text{Gain \%} = 16\%$$

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

Then we have,

$$x = y + \left(\frac{y \times 16}{100} \right)$$

$$x = y + 0.16y$$

$$x = 1.16y$$

When S.P increases by Rs. 100, we get

$$\Rightarrow x + 100 = y + \left(\frac{y \times 20}{100} \right)$$

Putting $x = 1.16y$, we get

$$\Rightarrow 1.16y + 100 = y + 0.2y$$

$$1.16y + 100 = 1.2y$$

$$0.04y = 100$$

$$y = \frac{100}{0.04}$$

$$= 2500$$

Thus, C.P of the tricycle is Rs. 2500.

Profit, Loss, Discount, Value Added Tax (VAT) Ex 13.1 Q22

Answer :

$$(i) \text{ Number of pens bought } = 16 \times 12 = 192$$

Let the S.P of one pen be Rs. x .

Therefore, S.P of 192 pens = Rs. $192x$

S.P of 8 pens = Rs. $8x$

It is given that S.P of 8 pens is equal to the loss on selling 192 pens.

Therefore, loss = Rs. $8x$

C.P of 192 pens = Rs. 576

So, loss = C.P - S.P

$$8x = 576 - 192x$$

$$200x = 576$$

$$x = \frac{576}{200} = 2.88$$

Therefore, loss = $8(2.88) = \text{Rs. } 23.04$

$$\text{Loss \%} = \frac{\text{loss} \times 100}{\text{C.P}}$$

$$= \frac{23.04 \times 100}{576}$$

$$= 4\%$$

$$(ii) \text{ S.P of 1 pen } = \text{Rs. } 2.88$$

Therefore, S.P of 1 dozen pens = $12x = 12 \times 2.88$

$$= \text{Rs. } 34.56$$

***** END *****