Exercise 11A

Given:

Retail price = Rs. 37950

$$\therefore \left(\frac{11}{10}x \times \frac{23}{20} \times \frac{5}{4}\right) = 37950$$

$$\Rightarrow x = \frac{37950 \times 10 \times 20 \times 4}{11 \times 23 \times 5}$$

$$\Rightarrow x = \frac{30360000}{1265} = 24000$$

∴ Production cost of a washing machine = Rs. 24000

Q20

Answer :

Mr. Mehta purchased a video at the cost of Rs. 20000.

Mr. Mehta purchased a television at the cost of Rs. 30000.

Total cost = Rs. (20000 + 30000) = Rs. 50000

He lost 5% on the video.

$$\text{SP} = \frac{(100 - \text{Loss \%})}{100} \times \text{CP}$$

$$= \frac{100-5}{100} \times 20000$$

$$= \frac{95}{100} \times 20000$$

$$= \text{Rs. } 19000$$

He gained 8% on the television.

$$\text{SP} = \frac{(100+\text{Gain \%})}{100} \times \text{CP}$$
$$= \frac{100+8}{100} \times 30000$$
$$= \frac{108}{100} \times 30000$$
$$= \textbf{Rs. } 32400$$

Total SP = $\textbf{Rs. } (\ 190000 + 32400\ ) = \textbf{Rs. } 51400$

Total CP = Rs. 50000

Total Gain = SP - CP = $\textbf{Rs. } (\ 51400 - 50000\ ) = \textbf{Rs. } 1400$

$$\text{Gain\%} = \left(\frac{\text{Gain}}{\text{CP}} \times 100\right)\%$$
$$= \left(\frac{1400}{50000} \times 100\right)\%$$
$$= 2.8\%$$

Q21

Answer :

Let the CP of 1 orange be Rs. *x*.

∴ CP of 36 oranges = Rs. 36*x*

Let SP of orange be Rs. *y*.

∴ SP of 36 oranges = Rs. 36*y*

Loss = SP of 4 oranges = $4y$ (given)

We know:

Loss = CP - SP

$$\Rightarrow \quad 4y = 36x - 36y$$
$$\Rightarrow \quad 4y + 36y = 36x$$
$$\Rightarrow \quad 40y = 36x$$
$$\Rightarrow \quad 10y = 9x$$
$$\Rightarrow \quad y = \frac{9}{10}x$$

$$\text{Loss}\% = \left(\frac{\text{Loss}}{\text{CP}} \times 100\right)\%$$

$$= \left(\frac{4y}{36x} \times 100\right)\%$$

$$= \left(\frac{4 \times 9x}{36x \times 10} \times 100\right)\%$$
$$= 10\%$$

Loss% = 10%

Q22

Answer :

Let the CP of one pencil be Rs. x.
Therefore, the CP of 96 pencils will be Rs. $96x$.
Let SP of one pencil be Rs. y.
∴ SP of 96 pencils = Rs. $96y$
Gain= SP of one dozen pencil = Rs.$12y$ (given)

Gain = SP - CP

⇒12y=96y-96x⇒96x=96y-12y⇒96x=84y⇒x=84y96

Gain% = GainCP×100 %=12y96x×100%=12y×9696×84y×100%=14.28%

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