



Exercise 10A

Now, gain = Rs (872 - 800) = Rs 72

$$\begin{aligned}\therefore \text{Gain percentage} &= \left\{ \frac{\text{gain}}{\text{total CP}} \times 100 \right\} \% \\ &= \left\{ \frac{72}{800} \times 100 \right\} \% \\ &= 9\%\end{aligned}$$

Wasim gains 9% on the whole transaction.

Q23.

Answer :

CP of one jeans = Rs 725

Gain percentage = 8%

$$\begin{aligned}\text{SP of one jeans} &= \text{Rs} \left\{ \frac{100 + \text{gain \%}}{100} \times \text{CP} \right\} \\ &= \text{Rs} \left\{ \frac{100 + 8}{100} \times 725 \right\} \\ &= \text{Rs} \left\{ \frac{108}{100} \times 725 \right\} \\ &= \text{Rs } 783\end{aligned}$$

CP of the other jeans = Rs 725

Loss percentage = 4%

$$\begin{aligned}\text{SP of the other jeans} &= \left\{ \frac{100 - \text{loss \%}}{100} \times \text{CP} \right\} \\ &= \left\{ \frac{100 - 4}{100} \times 725 \right\} \\ &= \left\{ \frac{96}{100} \times 725 \right\} \\ &= \text{Rs } 696\end{aligned}$$

Total CP of the two pairs of jeans = Rs (725 × 2) = Rs 1450

Total SP of the two pairs of jeans = Rs (696 + 783) = Rs 1479

Since SP > CP, there is a gain in the whole transaction.

Now, gain = Rs (1479 - 1450) = Rs 29

$$\begin{aligned}\therefore \text{Gain percentage} &= \left\{ \frac{\text{gain}}{\text{total CP}} \times 100 \right\} \% \\ &= \left\{ \frac{29}{1450} \times 100 \right\} \% \\ &= 2\%\end{aligned}$$

Hence, Hema gains 2% on the whole transaction.

Q24.

CP of 1 kg of sugar = Rs 25

C.P of 200 kg sugar = **Rs** (200 × 25) = **Rs** 5000

CP of 80 kg of sugar = **Rs** (25 × 80) = **Rs** 2000

CP of 40 kg of sugar = Rs $(25 \times 40) = \text{Rs } 1000$

$$\begin{aligned}\text{SP of 80 kg of sugar} &= \frac{100 + \text{gain \%}}{100} \times \text{CP} \\ &= \text{Rs } \frac{110}{100} \times 2000 \\ &= \text{Rs } 2200\end{aligned}$$

$$\begin{aligned}\text{SP of 40 kg sugar} &= \frac{100 - \text{loss \%}}{100} \times \text{CP} \\ &= \text{Rs } \frac{96}{100} \times 1000 \\ &= \text{Rs } 960\end{aligned}$$

$$\begin{aligned}\text{SP of 200 kg sugar} &= \frac{100 + \text{gain \%}}{100} \times \text{CP} \\ &= \text{Rs } \frac{108}{100} \times 5000 \\ &= \text{Rs } 5400\end{aligned}$$

Remaining quantity of sugar = $(200 - 80 + 40) \text{ kg} = 80 \text{ kg}$

$$\begin{aligned}\text{SP of the remaining sugar (80 kg)} &= \text{Rs } (5400 - 2200 - 960) \\ &= \text{Rs } 2240\end{aligned}$$

Q25.

Answer :

Let Rs x be the CP.

Then, SP = Rs $\frac{4x}{3}$

Since $\text{SP} > \text{CP}$, there is a gain.

$$\begin{aligned}\text{Now, gain} &= \text{SP} - \text{CP} \\ &= \frac{4}{3}x - x \\ &= \text{Rs } \frac{x}{3}\end{aligned}$$

$$\begin{aligned}\therefore \text{Gain percentage} &= \left(\frac{\text{gain}}{\text{CP}} \times 100 \right) \% \\ &= \left(\frac{100 \times x}{3x} \right) \% \\ &= 33.33\%\end{aligned}$$

Q26.

Answer :

Let CP be Rs x .

Then, SP = Rs $\frac{4x}{5}$

Since CP > SP, there is a loss.

$$\text{Loss} = \text{CP} - \text{SP}$$

$$= x - \frac{4x}{5} = \text{Rs } \frac{x}{5}$$

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

$$= \left(\frac{\frac{x}{5}}{x} \times 100 \right) \%$$

$$= 20\%$$

Thus, there is a loss of 20%.

Q27.

Answer :

SP of the umbrella = Rs 115.20

Loss = 10%

$$\text{CP of the umbrella} = \frac{100}{100 - \text{loss}} \times \text{SP}$$

$$= \text{Rs } \frac{100}{100 - 10} \times 115.20$$

$$= \text{Rs } \frac{100}{90} \times 115.20$$

$$= \text{Rs } 128$$

Now, CP = Rs 128 and desired gain = 5%

$$\begin{aligned}\therefore \text{Desired SP} &= \frac{100 + \text{gain \%}}{100} \times \text{CP} \\ &= \text{Rs } \frac{105}{100} \times 128 \\ &= \text{Rs } 134.4\end{aligned}$$

Hence, the desired selling price is Rs 134.4

Q28.

Answer :

SP of the bouquet = Rs 322

Gain percentage = 15%

$$\begin{aligned}\text{CP of the umbrella} &= \left(\frac{100}{100 + \text{gain \%}} \right) \times \text{SP} \\ &= \text{Rs } \left(\frac{100}{100 + 15} \right) \times 322 \\ &= \text{Rs } \frac{100}{115} \times 322 \\ &= \text{Rs } 280\end{aligned}$$

Now, CP = Rs 128 and desired gain percentage = 25%

$$\begin{aligned}\therefore \text{Desired SP} &= \left(\frac{100 + \text{gain \%}}{100} \right) \times \text{CP} \\ &= \text{Rs } \frac{125}{100} \times 280 \\ &= \text{Rs } 350\end{aligned}$$

***** END *****