

Exercise 10A

Hence, the selling price to obtain the desired gain must be Rs 350.

Q29.

Answer:

Let the original price be $m{x}$.

$$\Rightarrow 3120 = \mathbf{x} - \frac{4}{\frac{100}{\mathbf{x}}}$$
$$\Rightarrow 3120 = \mathbf{x} - \frac{\mathbf{x}}{25}$$

$$\Rightarrow 3120 = x - \frac{x}{26}$$

$$\Rightarrow 3120 = \frac{24x}{25}$$

$$\Rightarrow \frac{3120 \times 25}{24} = a$$

$$\Rightarrow x = 3250$$

So, the cost price is Rs 3250.

If it is sold for Rs 3445, then its a gain because SP > CP.

Now, gain = SP - CP
= Rs (3445 - 3250)
= Rs 195
:. Gain percentage =
$$\left(\frac{gain}{CP} \times 100\right)\%$$

= $\left(\frac{195}{3250} \times 100\right)\%$
= 6%

Q30.

Answer:

SP of one saree = Rs 2185 Gain percentage = 15%

CP of one saree =
$$\left\{ \frac{100}{100 + \text{gain \%}} \times \text{SP} \right\}$$

= $\text{Rs} \left\{ \frac{100}{100 + 15} \times 2185 \right\}$
= $\text{Rs} \left\{ \frac{100}{115} \times 2185 \right\}$
= $\text{Rs} 1900$

SP of the other saree = Rs 2185 Loss percentage = 5%

CP of the other aree =
$$\left\{ \frac{100}{100-loss\%} \times SP \right\}$$

= $\left\{ \frac{100}{100-5} \times 2185 \right\}$
= $\left\{ \frac{100}{95} \times 2185 \right\}$
= Rs 2300

Total SP of the two sarees = Rs (2185×2)= Rs 4370 Total CP of the two sarees = Rs (1900 + 2300) = Rs 4200 Since SP > CP, there is a gain in the whole transaction.

Now, gain = Rs (4370 - 4200) = Rs 170

∴ Gain percentage =
$$\left\{\frac{\text{gain}}{\text{total CP}} \times 100\right\}\%$$

= $\left\{\frac{170}{4200} \times 100\right\}\%$
= $4\frac{200}{4200}\%$
= $4\frac{1}{21}\%$

Hence, Luxmi gains $4\frac{1}{21}$ % in the whole transaction.

Answer:

SP of one fan = Rs 990

Gain percentage = 10%

CP of one fan =
$$\left\{ \frac{100}{100 + \text{gain }\%} \times \text{SP} \right\}$$

= $\left\{ \frac{100}{100 + 10} \times 990 \right\}$
= $\left\{ \frac{100}{110} \times 990 \right\}$
= Rs. 900

SP of the other fan =Rs 900

Loss percentage = 10%

Its
$$CP = \left\{ \frac{100}{100 - loss \%} \times SP \right\}$$

= $\left\{ \frac{100}{100 - 10} \times 990 \right\}$
= $\left\{ \frac{100}{90} \times 990 \right\}$
= $Rs \ 1100$

Total CP of the two fans = Rs (900 + 1100) = Rs Total SP of the two fans = Rs (990 + 990) = Rs Since CP >SP, there is a loss in the whole transaction. Now, loss = Rs (2000 - 1980) = Rs

$$\therefore Loss \ percentage = \left\{ \frac{loss}{total \ CP} \times 100 \right\} \%$$
$$= \left\{ \frac{20}{2000} \times 100 \right\} \%$$
$$= 1\%$$

Hence, the shopkeeper incurs a loss of 1% in the whole transaction.

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