Sudhir bought an almirah for Rs 13600 and spent Rs 400 on its transportation. He sold it for Rs 16800. Find his gain per cent.

ANSWER:

Cost price of an almirah = Rs. 13600
Transportation cost = Rs. 400
Total cost price = Rs. (13600 + 400) = Rs. 14000
Selling price = Rs. 16800
Now, SP > CP

$\text{Gain} = \text{SP} - \text{CP}$ = (16800 - 14000) = Rs. 2800

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

$$= \left(\frac{2800}{14000} \times 100\right)\%$$

$$= \frac{2800}{140}\%$$

$$= 20\%$$

Ravi purchased an old house for Rs 765000 and spent Rs 115000 on its repairs. Then, he sold it at a gain of 5%. How much did he get?

ANSWER:

Cost price of the house = Rs. 765000
Cost of repairing the house = Rs. 115000
Total Cost price = (765000 + 115000) = Rs. 880000
Ravi sold it at a gain of 5%.

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

$$= \left\{\frac{(100 + 5)}{100} \times 880000\right\}$$

$$= \frac{105}{100} \times 880000$$

$$= \text{Rs. } 924000$$

He gets Rs. 924000.

A vendor busy lemons at Rs 25 per dozen and sells them at the rate of 5 for Rs 12. Find his gain or loss per cent.

ANSWER:

CP of 12 lemons (dozen) = Rs. 25

CP of one lemon = Rs. $\frac{25}{12}$

CP of five lemons = 5 × $\frac{25}{12}$ = $\frac{125}{12} = \text{Rs. } 10.42$

SP of five lemons = Rs. 12 (given)

Gain = SP - CP = (12 - 10.42) = Rs 1.58

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

$$= \left(\frac{1.58}{10.42} \times 100\right)\%$$

= 15.2%

The selling price of 12 pens is equal to the cost price of 15 pens. Find the gain per cent.

ANSWER:

Let the cost price of the pen be Re 1.
Cost price of 12 pens = Rs 12
SP of 12 pens = CP of 15 pens = Rs 15
Gain = SP - CP = Rs (15 - 12) = Rs 3

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

$$= \left(\frac{3}{12} \times 100\right)\%$$

$$= 25\%$$

Gain% = 25%

The selling price of 16 spoons is equal to the cost price of 15 spoons. Find the loss per cent.

ANSWER:

Let the cost price of one spoon be Re 1.
CP of 16 spoons = Rs 16
SP of 16 spoons = CP of 15 spoons = Rs 15
Loss = CP - SP = (16 - 15) = Re 1

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

$$= \left(\frac{1}{16} \times 100\right)\%$$

$$= 6.25\%$$

Loss% = 6.25%

Manoj purchased a video for Rs 12000. He sold it to Rahul at a gain of 10%. If Rahul sells it to Rakesh at a loss of 5%, what did Rakesh pay for it?

ANSWER:

Cost price of a video = Rs. 12000
SP of a video at a gain of 10% =

$$\left\{\frac{(100+\text{ Gain }\%)}{100}\times\text{ CP}\right\}$$

$$=\left\{\frac{(100+10)}{100}\times 12000\right\}$$

$$=\left\{\frac{110}{100}\times 12000\right\}$$

$$=\text{ Rs. }13200$$

So, Rahul purchased at a cost price of Rs. 13200.

Rahul sells it at a loss of 5%.

SP of a video at loss of 5% =

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

$$=\left\{\frac{(100-5)}{100}\times 13200\right\}$$

$$= \frac{95}{100} \times 13200$$

$$= \text{Rs. } 12540$$

$\therefore$ Rakesh pays = Rs. 12540

On selling a sofa-set for Rs 21600, a dealer gains 8%. For how much did he purchase it?

ANSWER:

SP of the sofa set = Rs. 21600
Gain% = 8

$$\begin{aligned}
&\text{CP of the sofa set} \\
&= \left\{ \frac{100}{(100 + \text{Gain}\%)} \times \text{SP} \right\} \\
&= \left\{ \frac{100}{(100 + 8)} \times 21600 \right\} \\
&= \frac{2160000}{108} \\
&= \text{Rs. } 20000
\end{aligned}$$

He purchased it at the cost of Rs. 20000.

On selling a watch for Rs 11400, a shopkeeper loss 5%. For how much did the purchase it?

ANSWER:

SP of the watch = Rs 11400
Loss% = 5

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

$$= \left\{ \frac{100}{(100 - 5)} \times 11400 \right\}$$

$$= \frac{11400}{95}$$

$$= \text{Rs. } 12000$$

He purchased it at the cost of Rs. 12000.

On selling a calculator for Rs 1325, a man gains 6%. For how much should he sell it to gain 12%?

ANSWER:

SP of the calculator = Rs. 1325
Gain % = 6

CP of the calculator =

$$\left\{\frac{100}{(100+\text{ Gain }\%)}\times\text{ SP}\right\}$$

$$=\left\{\frac{100}{(100+6)}\times 1325\right\}$$

$$=\frac{132500}{106}$$

$$=\text{ Rs. }1250$$

$$\text{SP of the calculator}=\left\{\frac{(100+\text{ Gain }\%)}{100}\times\text{ CP}\right\}$$

$$=\left\{\frac{(100+12)}{100}\times 1250\right\}$$

$$=\frac{140000}{100}$$

$$=\text{Rs. }1400$$