

6. Mohit sold a T.V. for Rs 3,600; gaining one-sixth of its selling price. Find:

- (i) the gain
- (ii) the cost price of the ~~goods~~ T.V
- (iii) the ~~total~~ gain as percent

ANS \rightarrow S.P OF T.V = Rs. 3,600

$$\text{Gain} = \frac{1}{6} \text{ OF } (3600) = \frac{1}{6} \times 3600 = \text{Rs. } 600$$

- (i) Thus gain = Rs. 600
- (ii) cost price = $3600 - 600 = \text{Rs. } 3000$
- (iii) Gain % = $\frac{600}{3000} \times 100 = \frac{60}{3} = 20\%$

15) A man sold a radio-set for Rs. 250 and gained one ninth of its cost price. Find;

(i) its cost price

(ii) the profit percent

Ans -> (i) Let C.P of the radio-set = Rs. x

$$\text{Gain} = \text{Rs. } \frac{x}{9}$$

$$\text{S.P} = \text{Rs. } \left[x + \frac{x}{9} \right] = \left[\frac{9x + x}{9} \right] \text{Rs.} = \text{Rs. } \frac{10x}{9}$$

But we are given S.P of the radio-set = Rs. 250

$$\therefore \frac{10x}{9} = 250$$

$$\Rightarrow x = 250 \times \frac{9}{10} \Rightarrow x = 25 \times 9 \Rightarrow x = 225$$

\therefore C.P of the radio set = Rs. 225

$$(iii) \text{ profit} = \text{Rs.} \frac{x}{4} = \text{Rs.} \frac{225}{4} = \text{Rs.} 25$$

(Substituting the value of x)

$$= \frac{\text{profit}}{\text{C.P}} \times 100$$

$$= \frac{25}{225} \times 100 = \frac{25 \times 100}{225} = \frac{100}{9} \% = 11\frac{1}{9} \%$$

11) Rajesh sold his scooter to Rahim at 8% loss and Rahim, in turn, sold the same scooter to Prem at 5% gain.

If Prem paid Rs. 14,490 for the scooter; find:

(i) the S.P and the C.P of the scooter for Rahim.

(ii) the S.P and the C.P of the scooter for Rajesh.

Ans → let C.P of the scooter for Rajesh = Rs. $100x$

$$\text{S.P for Rajesh} = \frac{100x \times 92}{100} = 92x$$

This will be C.P for Rahim = $92x$, Gain = 5%

$$\therefore \text{S.P for Rahim} = \frac{92x \times 105}{100}$$

$$= \frac{92x \times 21}{20} = \frac{46x \times 21}{10} = \frac{966x}{10}$$

This will be C.P for Prem = Rs. 14,490

$$\frac{966x}{10} = 14,490$$

$$\Rightarrow x = \frac{14490}{966} \times 10 = \frac{14490}{483} \times 5 = 30 \times 5 = 150$$

(ii) C.P of scooter for Rahim = $92x = 92 \times 150 = \text{RS. } 13800$

S.P of scooter for Rahim = $\frac{966x}{10} = \frac{966}{10} \times 150$
 = $\text{RS. } 966 \times 15 = \text{RS. } 14490$

(iii) C.P of scooter for Rajesh = $100x = 100 \times 150 = \text{RS. } 15000$

S.P of scooter for Rajesh = $92x = \text{RS. } 92 \times 150 = \text{RS. } 13800$

12) John sold an article to peter at 20% profit and peter sold it to moham at 5% loss. If moham paid RS. 912 for the article; Find how much did John pay for it?

Ans \Rightarrow moham paid for the article = $\text{RS. } 912$

\therefore peter sold the article to moham

For peter:

S.P = $\text{RS. } 912$

LOSS = 5%

C.P = $\frac{100}{(100 - \text{LOSS}\%)} \times \text{S.P}$

= $\frac{100}{(100 - 5)} \times \text{RS. } 912 = \text{RS. } \frac{100 \times 912}{95}$

= $20 \times 48 = \text{RS. } 960$

John sold the same article to peter

\therefore For John:

S.P = $\text{RS. } 960$

profit = 20%

C.P = $\frac{100}{(100 + \text{profit}\%)} \times \text{S.P}$

= $\frac{100}{(100 + 20)} \times \text{RS. } 960 = \text{RS. } \frac{100}{120} \times 960$

= $\text{RS. } 100 \times 8 = \text{RS. } 800$