Home work

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Exercise - 8(A)

6) Mohit sold a T.V. for ₹ 3,600; gaining one sixth of its selling price. Find:
i) the gain (ii) the cost price of the T.V.
iii) the gain percent.

Ans) S.P of T.V. = ₹ 3,600

Gain = $\frac{1}{6}$ of (3600 = $\frac{1}{6} \times 3600 = ₹600$

i) Thus gain = ₹600

ii) Cost price = 3600 - 600 = ₹3000

iii) Gain % = $\frac{600}{3000} \times 100 = \frac{60}{3} = 20\%$

15) A man sold a radio-set for ₹ 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

profit = Rs $\frac{x}{9}$

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

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

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

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

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

ii) Profit = Rs $\frac{x}{9}$ = Rs $\frac{225}{9}$ = Rs 25

Profit % = $\frac{\text{Profit}}{CP} \times 100 = \frac{25}{225} \times 100 = \frac{25 \times 100}{225} = \frac{100}{9}\%$

$= 11\frac{1}{9}\%$

Exercise-8(B)

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 ₹14,490 for the scooter; find:

i) the SP and the CP of the scooter for Rahim.

ii) the SP and the CP of the scooter for Rajesh.

Ans) Let CP of the scooter for Rajesh = ₹100x

SP of for Rajesh = $\frac{100x \times 92}{100} = 92x$

CP for Rahim = 92x, Gain = 5%

$\therefore$ SP for Rahim = $\frac{92x \times 105}{100} = \frac{92x \times 21}{20} = \frac{46x \times 21}{10}$

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

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

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

i) CP of scooter for Rahim = $92x = 92 \times 150$

= ₹13800

SP of scooter for Rahim $= \frac{966x}{10} = \frac{966}{10} \times 150$

$= 966 \times 15 = 14490$

ii) $\therefore$ CP of scooter for Rajesh $= 100x = 100 \times 150$

$= ₹15000$

SP of scooter of Rajesh $= 92x = 92 \times 150 = 13800$

12) John sold an article to Peter at 20% profit and Peter sold it to Mohan at 5% loss. If Mohan paid ₹912 for the article; find how much did John pay for it?

Ans: Mohan paid for the article = ₹912

$\therefore$ Peter sold the article to Mohan

$\therefore$ For Peter: SP = ₹912

@ L% = 5%

$CP = \frac{100}{100 - L\%} \times SP = \frac{100}{95} \times 912$

$= 20 \times 48 = 960$

John sold the same article to Peter

$\therefore$ For John: SP = 960

P% = 20%

$CP = \frac{100}{100 + P\%} \times SP = \frac{100}{120} \times 960$

$= 100 \times 8 = ₹800$

Hence, John paid for the article = ₹800