PROFIT, LOSS AND DISCOUNT Ch-8

Exercise 8A

14 CP of 10 notebooks = ₹40

SP of 10 notebook @ ₹4.75 per note book

$= 4.75 \times 10 = ₹47.50$

Gain = S.P − C.P

$= ₹47.50 - ₹40 = ₹7.50$

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

$= \frac{7.50}{40} \times 100 = \frac{750}{40} = \frac{75}{4} = 18\frac{3}{4}\%$

24 Let number of oranges bought = 12 (LCM of 4, 3 = 12)

C.P of oranges $= ₹\frac{3}{4} \times 12^{3} = ₹9$

S.P of oranges $= ₹\frac{4}{3} \times 12^{4} = ₹16$

Profit = ₹16 − 9

Profit % = $\frac{7}{9} \times 100 = \frac{700}{9} = 77\frac{7}{9}\%$

3) Let the number of articles bought = 60 (LCM of 15, 12 = 60)

∴ C.P of the articles = ₹ $\frac{112.50}{15} \times 60$

= ₹ $\frac{112.50 \times 60^{4}}{15_{1}}$ = 112.50 × 4

= ₹ 450

and S.P of the articles = ₹ $\frac{108}{12} \times 60^{5}$ = ₹ 540

(i) Gain = S.P − C.P = ₹540 − ₹450 = ₹90

∴ Gain % = $\frac{\text{Gain}}{\text{C.P}} \times 100 = \frac{90}{450} \times 100^{20} = 20\%$.

(ii) To make a profit of ₹90, the number of articles needed to be sold = 60

To make a profit of Re ₹1, the number of articles needed to be sold = $\frac{60}{90}$

To make a profit of ₹75, the number of articles needed to be sold = $\frac{60}{90} \times 75^{25} = 25 \times 2 = 50$