chapte-12Profit and loss Exercise-12.1

Solution-01:-

(i) we have,

cost price = RS 1200,

Selling price = Rs 1350,

profit | Loss = ?.

clearly S.P > C.P so, there will be Profit

Given by

Profit = S.P - C.P

= RS 1350 - RS 1200

= RS. 150

(ii) we have,

cost price = RS 1270

Selling price = RS. 1250

clearly S.P < C.P so, there will be loss.

Given by

loss = C.P - S.P

= 1270 - 1250 = RS. 20.

(iii) we have,

cost price = RS 720.

Selling price = ?

Profit = RS 55.50

Profit = S.P - C.P [Pft = S.P - C.P]

Profit = S.P - C.P

C.P = 720 + 55.50 = 775.50

(iv) we have,

C.P = ?.

S.P = RS 1254.

Loss = RS 32

Loss = C.P - S.P

C.P = S.P + Loss

C.P = 1254 + 32

C.P = RS 1286

Solution-02:-

(i) we have,

C.P = RS 1265

S.P = RS 1253

Loss = C.P - S.P

= RS 1265 - RS 1253

= RS 12.

(ii) we have.

C.P = RS ....

S.P = Rs 450

Profit = Rs 150

profit = S.P - C.P

150 = S.P - C.P

C.P = 450 - 150

C.P = RS. 300.

(iii) we have

C.P = Rs 3355

S.P = Rs 7355

Clearly S.P > C.P, so there will be Profit given by.

Profit = S.P - C.P

= Rs 7355 - Rs 3355

= Rs. 4,000.

(iv) we have

C.P = Rs .....

S.P = Rs 2390

Loss = Rs 5.50

Loss = C.P - S.P

C.P = Loss + S.P

= 5.5 + 2390

= 2395.5

C.P = 2395.5

Solution-03 :-

(i) we have,

C.P = Rs 4560

S.P = Rs 5,000

clearly, S.P > C.P, So there will be Profit

Percentage is given by

Profit = S.P - C.P

Profit = Rs 5,000 - Rs 4,560

= Rs 440

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

$$= \frac{440}{4560} \times 100$$

$$= 9.65\%$$

(ii) we have

C.P = Rs 2600, S.P = 2470

clearly, S.P < C.P, so there will be loss% is given by

Loss = C.P - S.P

= 2600 - 2470 = Rs. 130

$$\text{Loss \%} = \frac{\text{loss}}{\text{C.P}} \times 100 = \frac{130}{2600} \times 100 = 5\%$$

Solution - 3 :-

(iii) we have.

C.P = RS 332 , S.P = 350

Here S.P > C.P , so there will be Profit %.

Profit = S.P - C.P

Profit + C.P = S.P

Profit = 350 - 332 = Rs. 18.

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

$$= \frac{18}{332} \times 100$$

$$= 5.42\%.$$

(v) we have.

C.P = RS 1500 , S.P = RS 1500

Here, Profit = S.P - C.P [∵ C.P = S.P]

= 1500 - C.P

= 1500 - 1500

= 0

Profit % = 0.

Solution - 4 :-

(i) C.P = RS 4,000

gain = RS 40.

gain = S.P - C.P

gain + C.P = S.P

S.P = 4,000 + 40

S.P = 4,040.

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

$$= \frac{40}{4000} \times 100$$

$$= 1\%.$$

(ii) we have

S.P = RS 1272, loss = 328

loss = C.P - S.P

C.P = loss + S.P

= 1272 + 328

= 1600

$$\text{loss \%} = \frac{328}{1600} \times 100$$

$$= 20.5\%.$$

4.(iii) S.P = Rs 1820

gain = Rs 420

C.P = S.P - gain

= 1820 - 420

= 1400

gain % = $\frac{420}{1400} \times 100$

= 30%

Solution-6:

We have,

Grain merchant sold = 600 quintals

Profit % = 7%

Quintal rice cost = Rs 250

C.P = 600 × quintal rice cost + Rs 1000

= 600 × 250 + Rs 1000

= 150000 + Rs 1,000

= 1,51,000.

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

$\frac{7 \times 1,51,000}{100}$ = Profit

⇒ Profit = 10,570

∴ Selling price = 1,51,000 + 10,570 = 1,61,570.

Solution-07:

Cost price for 4 dozen pencils = Rs 10.80 × 4

Selling price = ?

= Rs 43.20

Selling price = 48 × 80 paise

[4 dozen = 4 × 12 = 48]

= Rs 38.40

Loss = C.P - S.P [C.P > S.P]

= 43.20 - 38.40

= 4.8

Loss % = $\frac{4.8}{43.20} \times 100$

= $\frac{100}{9}$ %.

Loss % = $\frac{100}{9}$ %.

Solution - 08:-

we have

oranges buys at 26 per dozen

Cost price one orange = $\frac{26}{12}$

[∵ dozen = 12]

Cost price for 5 oranges = $\frac{26}{12} \times 5$

selling price for 5 oranges = Rs. 13.

Gain = S.P − C.P [S.P > C.P]

$= -\frac{26 \times 5}{12} + 13$

$= \frac{156 - 130}{12}$

$= \frac{26}{12}$

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

$= \frac{\frac{26}{12}}{\frac{26 \times 5}{12}} \times 100$

$= \frac{100}{5}\% = 20\%$.

Solution - 09:-

we have

Purchased amount = 3,65,000

Repaired Price = 1,35,000

Cost Price = Purchased Price + Repair

= 3,65,000 + 1,35,000

= 5,00,000

Selling price = 5,50,000.

Gain = S.P − C.P [S.P > C.P]

= 5,50,000 − 5,00,000

Gain% = $\frac{50,000}{5,00,000} \times 100$

$= \frac{100}{10}\%$

$= 10\%$

Solution-10:-

we have,

Cost price = 840

Selling price = RS 910.

Gain = 910 - 840 [S.P > C.P]

= RS 70.

Gain% = $\frac{70}{840} \times 100$ [$\frac{\text{Gain}}{\text{C.P}} \times 100 = \text{Gain\%}$]

= $\frac{25}{3}$ %.

Solution - 11 :-

We have, C.P cost Price = RS 120.

Profit% = 10%.

$\frac{\text{Gain}}{\text{C.P}} \times 100 = 10$

Gain = $\frac{120 \times 10}{100}$

Gain = RS. 12

S.P = C.P + Gain

= 120 + 12

= 132.

Solution - 12 :-

we have,

cost price for 50 bananas = RS. 135

cost price for one banana = $\frac{135}{50}$.

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

20 = $\frac{\text{Profit}}{\frac{135}{50} \times 45} \times 100$

[$\because$ No of bananas sold = Total - rotten

= 50 - 5

= 45 dozen bananas

cost price for 45 dozen bananas = $\frac{135}{50} \times 45$]

Profit = $\frac{20 \times 135 \times 45}{50} \times 100$

= $\frac{270 \times 45}{500}$

= 24.3

Selling price = C.P + Gain

= 135 + 24.3 = 159.3

price per dozen = $\frac{159.3}{45}$ = 3.6.

Solution-13:-

Cost price = No. of dozen eggs × dozen cost

= 50 × 6.4

= Rs 320

Selling price = Total no of eggs cost - defective eggs cost

= 50 × 12 × 55 paise - 20 × 55 paise

[∵ 1 dozen = 12 eggs]

S.P = Rs $\frac{660 \times 55}{100}$ − Rs $\frac{20 \times 55}{100}$ [∵ 1 Paise = $\frac{1}{100}$ Rs]

= 330 - 11

= 319

C.P > S.P

∴ loss = C.P - S.P

= 320 - 319 = 1

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

= $\frac{100}{320} = \frac{5}{16}$ % loss.

Solution-14:-

we have.

400 eggs cost price = ?.

1 dozen eggs → 8.40.

$\frac{400}{12}$ dozen eggs → x [∵ 1 dozen = 12 eggs]

Let 400 eggs cost price say 'x'

$x = \frac{400 \times 8.40}{12}$

= Rs. 280.

cost price for one egg = $\frac{8.40}{12}$

= 70 paise.

cost price for 100 eggs = 100 × 70 paise

= Rs 70.

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

15 = $\frac{\text{Profit}}{70} \times 100$

⇒ Profit = $\frac{15 \times 70}{100}$ = Rs 10.5

Selling price for 100 eggs = 70 + 10.5 = Rs 80.5