Profit – Loss

Solution 1:

C.P = Rs. 500, S.P = Rs. 500
Profit = S.P. – C.P.
But here, Profit = Loss
So, there is neither profit nor loss or there is a profit or loss of Rs. 0.

$$\text{Profit/Loss percentage} = \frac{\text{Profit/Loss}}{\text{C.P}} \times 100 = \frac{0}{500} \times 100 = 0\%$$

Jitubhai made neither profit nor loss.
Therefore, his profit or loss percent is 0%.

Solution 2:

C.P = Rs. 38000, S.P = Rs. 30400
S.P (Rs. 30400) < C.P (Rs. 38000)
Hence, Ramila suffered a loss.
Loss = C.P – S.P = Rs. (38000 – 30400)
So, loss = Rs. 7600

$$\text{Loss percentage} = \frac{\text{Loss}}{\text{C.P}} \times 100 = \frac{7600}{38000} \times 100 = 20\%$$

Thus, Ramila suffered a loss of 20%.

Solution 3:

C.P of 10 dresses = Rs. 6300
Extra expenses = Rs. 200
N.P of 10 dresses = Rs. (6300 + 200) = Rs. 6500
S.P of 10 dresses = Rs. (10 × 780) = Rs. 7800
S.P (Rs. 7800) > N.P (Rs. 6500)
So, Aarati has made a profit.
Profit = S.P. – N.P. = Rs. (7800 – 6500) = Rs. 1300

$$\text{Profit percentage} = \frac{\text{Profit}}{\text{C.P}} \times 100 = \frac{1300}{6500} \times 100 = 20\%$$

Thus, Aarati made 20% profit.

Solution 4:

C.P. of the refrigerator = Rs. 10,000
S.P. = Rs. 9000
S.P (Rs. 9,000) < C.P. (Rs. 10,000)
So, Aasifbhai was in loss.
Loss = C.P. – S.P. = Rs. (10,000 – 9,000) = Rs. 1000
Loss percentage = $\dfrac{\text{Loss}}{\text{C.P}} \times 100 = \dfrac{1000}{10000} \times 100 = 10\%$
Thus, Aasifbhai incurred a loss of 10%.

Solution 5:

C.P. of 20 sarees = Rs. (200 × 20) = Rs. 4000
S.P. of 20 sarees = Rs. 5000
S.P. (Rs. 5000) > C.P. (Rs. 4,000)
So, Namrataben was in profit.
Profit = S.P. – C.P. = Rs. (5,000 – 4,000) = Rs. 1000
Profit percentage = $\dfrac{\text{Profit}}{\text{C.P.}} \times 100 = \dfrac{1000}{4000} \times 100 = 25\%$
Thus, Namrataben made 25% profit.

Practice – 1

Solution 1:

No.	Cost price (in Rs.)	Expense (in Rs.)	Selling price (in Rs.)	Profit/loss (in Rs.)	Profit/loss (in %)
(1)	235	15	225	Loss Rs. 25	10 % Loss
(2)	930	70	850	Loss Rs. 150	15 % Loss
(3)	2300	—	2760	Profit Rs. 460	20 % Profit
(4)	3150	250	4250	Profit Rs. 850	25 % Profit
(5)	5350	150	5390	Loss Rs. 110	2 % Loss

Calculations :

(1) C.P.= Rs. 235, Expenses = Rs. 15, and S.P.= Rs. 225

N.P.= C.P.+ Expenses = Rs. (235 + 15)= Rs. 250

N.P. (Rs. 250) > S.P. (Rs. 225)

So, there is a loss.

Loss = N.P. – S.P. = (Rs. 250 – Rs. 225) = Rs. 25

Loss percentage = $\dfrac{Loss}{N.P.} \times 100 = \dfrac{25}{250} \times 100 = 10\%$

(2) C.P. = Rs. 930, Expenses = Rs. 70, and S.P. = Rs. 850

N.P. = C.P. + Expenses = Rs. (930 +70)= Rs. 1000

N.P. (Rs. 1000) > S.P. (Rs. 850)

So, there is a loss.

Loss = N.P. – S.P. = (Rs. 1000 – 850) = Rs. 150

Loss percentage = $\dfrac{Loss}{N.P} \times 100 = \dfrac{150}{1000} \times 100 = 15\,\%$

(3) C.P = Rs. 2300, S.P = Rs. 2760

S.P (Rs. 2760) > C.P (Rs. 2300)

So, there is a profit.

Profit = S.P – C.P.= (Rs. 2760 – Rs. 2300) = Rs. 460

Profit percentage = $\dfrac{Profit}{C.P} \times 100 = \dfrac{460}{2300} \times 100 = 20\,\%$

(4) C.P. = Rs. 3150, Expenses = Rs. 250, and S.P. = Rs. 4250

N.P. = Rs. C.P. + Expenses = Rs. (3150 + 250) = Rs. 3400

N.P (Rs. 3400) < S.P (Rs. 4250)

So, there is a profit.

Profit = S.P. – N.P.= (Rs. 4250 – Rs. 3400) = Rs. 850

Profit percentage = $\dfrac{Profit}{N.P} \times 100 = \dfrac{850}{3400} \times 100 = 25\,\%$

(5) C.P = Rs. 5350, Expenses = Rs. 150, and S.P = Rs. 5390

N.P = C.P + Expenses =(Rs. 5350 + Rs. 150) = Rs. 5500

N.P. (Rs. 5500) > S.P. (Rs. 5390)

So, there is a loss.

Loss = N.P. – S.P=(Rs. 5500 – Rs. 5390) = Rs. 110

Loss percentage = $\dfrac{Loss}{N.P} \times 100 = \dfrac{110}{5500} \times 100 = 2\,\%$

Practice – 2

Solution 1:

C.P. of the buffalo = Rs. 25000, S.P. of the buffalo = Rs. 22500

S.P. (Rs. 22500) < C.P. (Rs. 25000)

So, Pankajbhai incurred a loss.

Loss = C.P. – S.P. = (Rs. 25000 – Rs. 22500) = Rs. 2500

Loss percentage = $\dfrac{Loss}{C.P.} \times 100 = \dfrac{2500}{25000} \times 100 = 10\,\%$

Thus, Pankajbhai incurred a loss of Rs. 2500 and the loss percent is 10%.

Solution 2:

C.P of jaggery = Rs. 1225
Expense = Rs. 25
S.P. of jaggery= Rs. 1325
N.P = C.P + Expenses = Rs. (1225 + 25) = Rs. 1250
S.P (Rs. 1325) > N.P (Rs. 1250)
So, there is a profit.
Profit = S.P.-N.P. = Rs. (1325- 1250) =Rs. 75
Profit percentage $= \frac{Profit}{N.P} \times 100 = \frac{75}{1250} \times 100 = 6\%$
Thus, the merchant made a profit of Rs. 75 and the loss percent is 6%.

Solution 3:

C.P. of the camera = Rs. 6000
S.P. of the camera = Rs. 5580
S.P. (Rs. 5580) < C.P. (Rs. 6000)
So, Rubi suffered a loss
Loss = C.P-S.P = Rs. (6000- 5580)= Rs. 420
Loss percentage $= \frac{loss}{C.P} \times 100 = \frac{420}{6000} \times 100 = 7\%$
Thus, Rubi incurred a loss of Rs. 420 and the loss percent is 7%.

Solution 4:

C.P of the cloth = Rs. 225
Expenses = Rs. 75
S.P of pant = Rs. 285
N.P = C.P + Expenses = Rs. (225 + 75) = Rs. 300
S.P (Rs. 285) > N.P (Rs. 300)
Hence, John suffered a loss.
Loss = N.P- S.P = Rs. (300-285) = Rs. 15
Loss percentage $= \frac{Loss}{N.P} \times 100 = \frac{15}{300} \times 100 = 5\%$
Thus, Jhon incurred a loss of Rs. 15 and the loss percent is 5%.

Solution 5:

C.P of the old mobile = Rs. 1575
Expense on repairing = Rs. 225
S.P of the mobile = Rs. 2160
N.P = C.P + Expenses = Rs. (1575 + 225) = Rs. 1800
S.P (Rs. 2160) > N.P (Rs. 1800)
So, there is a profit.
Profit = S.P.-N.P. = Rs. (2160-1800)= Rs. 360
Profit percentage $= \frac{Profit}{N.P.} \times 10 = \frac{360}{1800} \times 100 = 20\%$
Thus, the mobile repairer made a profit of Rs. 360 and the profit percent is 20%.

Solution 6:

C.P. of the water tank = Rs. 1200,
Expense on the metal sheet = Rs. 300
S.P. of the tank = Rs. 1200
N.P. = C.P. + Expenses = (1200 + 300) = Rs. 1500
S.P. (1200) < N.P. (1500)
So, Nasim incurs a loss.
Loss = N.P. – S.P. = (1500 – 1200) = Rs. 300

Loss percentage $= \dfrac{\text{Loss}}{\text{N.P.}} \times 100 = \dfrac{300}{1500} \times 100 = 20\%$

Thus, Nasim incurred a loss of Rs. 300 and the loss percent is 20%.

Solution 7:

C.P. of kites = Rs. 640
Expense on rickshaw = Rs. 60
S.P. of kites = Rs. 770
N.P. = C.P. + Expenses = Rs. (640 + 60) = Rs. 700
S.P. (Rs. 770) > N.P. (Rs. 700)
Hence there is profit.
Profit = S.P. – N.P. = Rs. (770 – 700) = Rs. 70

Profit percentage $= \dfrac{\text{Profit}}{\text{N.P}} \times 100 = \dfrac{70}{700} \times 100 = 10\%$

Thus, Mayur made a profit of Rs. 70 and the profit percent is 10%.

Solution 8:

C.P of bicycle = Rs. 3000
S.P of bicycle = Rs. 2550
S.P (Rs. 2550) < C.P (Rs. 3000)
Hence, Rakesh suffers a loss.
Loss = C.P – S.P = Rs. (3000 – 2550) = Rs. 450

Loss percentage $= \dfrac{\text{Loss}}{\text{C.P}} \times 100 = \dfrac{450}{3000} \times 100 = 15\%$

Thus, Rakesh incurred a loss of Rs. 450 and the loss percent is 15%.

Solution 9:

C.P. of the packet of sarees = Rs. 60000
S.P. of the packet of sarees = Rs. 7200
S.P. (Rs. 7200) > C.P. (Rs. 6000)
Hence, Bhupendrabhai made profit.
Profit = S.P. – C.P. = Rs. (7200 – 6000) = Rs. 1200

Profit percentage $= \dfrac{\text{Profit}}{\text{C.P.}} \times 100 = \dfrac{1200}{6000} \times 100 = 20\%$

Thus, Bhupendrabhai made a profit of Rs. 1200 and the profit percent is 20%.