

Important points of profit and loss

- The price at which we buy the goods is known as **cost price (C.P) .**
- The price at which we sell the goods is known as **selling price (S.P) .**
- The expenses on transporting goods, labour charges, salaries etc are known as **overhead expenses .**
- Overhead expenses are added to the cost price .
- When selling price of an item is more than the cost price , it is a profit or gain .
S.P > C.P , there is a profit
Profit = S.P - C .P
- When the cost price of an item is more than the selling price , it is a loss.
C.P > S.P ,
there is a loss
Loss = C.P - S.P

Important formulas :

$$\mathbf{S.P = C.P + Profit}$$

$$\mathbf{S.P = C.P - Loss}$$

$$\mathbf{C.P = S.P - Profit}$$

$$\mathbf{C.P = S.P + Loss}$$

Exercise - 4

1. Find the profit or loss in each of the following

Cases:

(a) $C.P = ₹ 170, S.P = ₹ 230$

$$S.P > C.P$$

$$\begin{aligned} \text{Profit} &= S.P - C.P \\ &= ₹ 230 - ₹ 170 \\ &= ₹ 60 \end{aligned}$$

(b) $C.P = ₹ 425, S.P = ₹ 391$

$$C.P > S.P$$

$$\begin{aligned} \text{Loss} &= C.P - S.P \\ &= ₹ 425 - ₹ 391 \\ &= ₹ 34 \end{aligned}$$

(c) $S.P = ₹ 975, C.P = ₹ 1025$

$$C.P > S.P$$

$$\begin{aligned} \text{Loss} &= C.P - S.P \\ &= ₹ 1025 - 975 \\ &= ₹ 50 \end{aligned}$$

(d) $S.P = ₹ 1,640, C.P = ₹ 1,460$

$$S.P > C.P$$

$$\begin{aligned} \text{Profit} &= S.P - C.P \\ &= ₹ 1640 - ₹ 1460 \\ &= ₹ 180 \end{aligned}$$

2. Find the s.p if:

(a) $C.P = ₹ 185$, Profit = ₹ 27

$$\begin{aligned} S.P &= C.P + \text{Profit} \\ &= ₹ 185 + ₹ 27 \\ &= ₹ 212 \end{aligned}$$

(b) $C.P = ₹ 670$, Loss = ₹ 40

$$\begin{aligned} S.P &= C.P - \text{Loss} \\ &= ₹ 670 - ₹ 40 \\ &= ₹ 630 \end{aligned}$$

3. Find the C.P if:

(a) $S.P = ₹ 994$, Loss = ₹ 51

$$\begin{aligned} C.P &= S.P + \text{Loss} \\ &= ₹ 994 + ₹ 51 \\ &= ₹ 1045 \end{aligned}$$

(b) $S.P = ₹ 1825$, profit = ₹ 75

$$\begin{aligned} C.P &= S.P - \text{Profit} \\ &= ₹ 1825 - ₹ 75 \\ &= ₹ 1750 \end{aligned}$$

4. Prince sold a water purifier for ₹ 1,530. He had bought it for ₹ 1,455. Find his profit or loss.

Sol. S.P of water purifier = ₹ 1,530
C.P of water purifier = ₹ 1,455

Now, S.P > C.P

$$\begin{aligned}\text{Profit} &= \text{S.P} - \text{C.P} \\ &= ₹ 1530 - ₹ 1455 \\ &= ₹ 75.\end{aligned}$$

∴ Prince had profit of ₹ 75.

5. A shopkeeper bought an almirah for ₹ 14,560 and sold it at a loss of ₹ 405. Find the selling price of the almirah.

Sol. C.P of the almirah = ₹ 14,560
Had loss of = ₹ 405

$$\begin{aligned}\text{Now, S.P} &= \text{C.P} - \text{Loss} \\ &= ₹ 14,560 - ₹ 405 \\ &= ₹ 14,155\end{aligned}$$

∴ The shopkeeper sold the almirah at ₹ 14,155.