Exercise 7.3 — Solutions 1 to 16

Percentage and Its Applications

1. Calculator: C.P. ■760, S.P. ■874.

Profit = 874 – 760 = ■114. Profit% = (114/760)×100 = 15%.

Answer: Profit = ■114; Profit% = 15%.

2. Saree: C.P. ■2500, S.P. ■2300.

Loss = 2500 – 2300 = ■200. Loss% = (200/2500)×100 = 8%.

Answer: Loss = ■200; Loss% = 8%.

3. (i) Gardening shears: C.P. ■250, S.P. ■325.

Profit = ■75. Profit% = (75/250)×100 = 30%.

Answer: Profit = ■75; Profit% = 30%.

3. (ii) Shirt: C.P. ■750, S.P. ■450.

Loss = ■300. Loss% = (300/750)×100 = 40%.

Answer: Loss = ■300; Loss% = 40%.

4. Two chairs: C.P. ■4800 and ■3640.

First S.P. = 4800 + 13■% of 4800 = ■5440. Second S.P. = 3640 – 15% of 3640 = ■3094. Total C.P. = ■8440; total S.P. = ■8534.

Answer: Net gain = ■94.

5. 24 tables bought at ■4500 each; 16 sold at ■6000 each and 8 at ■4000 each.

Total C.P. = 24×4500 = ■108000. Total S.P. = 16×6000 + 8×4000 = ■128000. Gain = ■20000.

Answer: Gain% = (20000/108000)×100 = 18 14/27% ≈ 18.52%.

6. Fan sold for ■2970 at profit ■220.

C.P. = 2970 – 220 = ■2750. Profit% = (220/2750)×100 = 8%.

Answer: C.P. = ■2750; Profit% = 8%.

7. Earphones sold for ■3906 at loss ■294.

C.P. = 3906 + 294 = ■4200. Loss% = (294/4200)×100 = 7%.

Answer: C.P. = ■4200; Loss% = 7%.

8. Flower vase costs ■480; loss = 10%.

Loss = ■48. S.P. = 480 – 48 = ■432.

Answer: Selling price = ■432.

9. T.V. bought for ■80000; profit = 20%.

Profit = ■16000. S.P. = 80000 + 16000 = ■96000.

Answer: Selling price = ■96,000.

10. Article sold for ■300 at 20% profit.

S.P. = 120% of C.P. C.P. = 300×100/120 = ■250.

Answer: Cost price = ■250.

11. Article sold for ■320 at 20% loss.

S.P. = 80% of C.P. C.P. = 320×100/80 = ■400.

Answer: Cost price = ■400.

12. Chair sold for ■1566 at 16% profit.

S.P. = 116% of C.P. C.P. = 1566×100/116 = ■1350.

Answer: Cost price = ■1350.

13. Garments sold for ■7360 at 8% loss.

S.P. = 92% of C.P. C.P. = 7360×100/92 = ■8000.

Answer: Cost price = ■8000.

14. Table sold for ■3168 at 12% loss; find result if sold for ■3870.

C.P. = 3168×100/88 = ■3600. At ■3870, gain = ■270; gain% = (270/3600)×100 = 7.5%.

Answer: C.P. = ■3600; Gain% = 7.5%.

15. Article sold for ■4550 at 9% loss; find result if sold for ■4825.

C.P. = 4550×100/91 = ■5000. At ■4825, loss = ■175; loss% = (175/5000)×100 = 3.5%.

Answer: Loss% = 3.5%.

16. Car bought for ■80000; repairs = 12.5%; desired profit = 15%.

Repair cost = ■10000. Total C.P. = ■90000. Profit = 15% of ■90000 = ■13500.

Answer: Selling price = ■103,500.