Grade 7 Math, Explained

Unit 7 · Profit and Loss

HARDER PRACTICE QUESTIONS

Full marks 33

Write your answers on separate paper. Show your working, and say whether each answer is a profit or a loss. Unless a question says otherwise, a profit or loss percent is of the cost price. The prices on this sheet are made up for the problems.

1 Spot the error [3]

A cycle was sold for Rs 8,800 at a profit of 10%. Aayush wrote: "The profit is 10% of 8,800, which is Rs 880, so the cost price was 8,800 − 880 = Rs 7,920."

i. What is wrong?
ii. Find the right cost price.
iii. Check your answer.

2 Copy and complete [4]

Copy and complete the table.

Cost price (Rs)	Selling price (Rs)	Profit or loss
2,400	……	profit 15%
……	3,060	loss 15%
750	……	loss 12%
……	5,750	profit 15%

3 Apples from Jumla [4]

Sana buys 40 kg of apples in Jumla at Rs 180 a kilogram and pays Rs 800 to bring them to her shop in Surkhet. She sells them all at Rs 230 a kilogram.

i. What is her real cost price?
ii. What is her profit percent?
iii. At what price a kilogram should she have sold them to make a profit of 20%?

4 From the factory to you [4]

A factory sells a school bag to a shopkeeper at a profit of 20%. The shopkeeper sells it at a profit of 25%. A student pays Rs 1,500 for it.

i. What did the shopkeeper pay for the bag?
ii. What did the bag cost the factory to make?
iii. The student says, "I paid 20% + 25% = 45% more than it cost to make." Is she right? Find the real percent.

5 One radio, two prices [3]

Selling a radio for Rs 3,450 gives a profit of 15%. What would be the profit or loss percent if it were sold for Rs 2,850?

6 Two ways to say it [4]

Diksha and Dawa each sell a jacket for Rs 4,000. Diksha says her profit is 20% of her selling price. Dawa says his profit is 25% of his cost price.

i. What was Diksha's profit, and her cost price?
ii. What was Dawa's cost price, and his profit?
iii. Who made more profit?
iv. What is Diksha's profit percent, worked out the usual way?

7 Two phones [4]

Rishav buys two phones for Rs 15,000 each. He sells one at a profit of 20% and the other at a loss of 12%.

i. Find the selling price of each phone.
ii. Did he make a profit or a loss on the two together, and how much?
iii. Find it as a percent. Is it $20\% - 12\% = 8\%$?

8 Make your own [3]

i. Choose a cost price over Rs 1,000. Find the selling price for a profit of 12%, and for a loss of 8%.
ii. Make up a question about a sale whose answer is "a loss of 20%", and show that the answer is right.

9 Think: counted in pens [4]

i. By selling 12 pens, a shopkeeper makes a profit equal to the cost price of 3 pens. What is the profit percent?
ii. By selling 12 pens, another shopkeeper makes a loss equal to the **selling** price of 2 pens. The cost price of the 12 pens is the selling price of how many pens?
iii. What is the second shopkeeper's loss percent?