

Profit and Loss

Unit: Comparing Quantities - Student Practice Worksheet

Overview: Kabir bought a bicycle for Rs. 4,000 and sold it for Rs. 4,600. He said his profit percent was 15%. Zara checked his division and found he'd divided by the selling price, not the cost price. The real answer was different, and it mattered for the bigger sale he was planning next.

Practice Questions (30 Total)

Section A - Easy

Q1. Teal cost 200, maroon extra 50. What is the profit?



CP 200, extra 50

- ☐ A. Rs. 50
- ☐ B. Rs. 200
- ☐ C. Rs. 250
- ☐ D. Rs. 450

Q2. What value do you divide by to find profit percent?

- ☐ A. Selling price
- ☐ B. Cost price
- ☐ C. Profit itself
- ☐ D. Always 100

Q3. A toy is bought for Rs. 100 and sold for Rs. 120. What is the profit percent?

- ☐ A. 16.7%
- ☐ B. 12%
- ☐ C. 20%
- ☐ D. 100%

Q4. Cost 50, maroon shortfall 10. What is the loss?



short 10

- ☐ A. Rs. 40
- ☐ B. Rs. 50
- ☐ C. Rs. 90
- ☐ D. Rs. 10

Q5. Which formula correctly gives profit percent?

- ☐ A. $(SP - CP)/SP \times 100$
- ☐ B. $(CP - SP)/CP \times 100$
- ☐ C. $(SP - CP)/CP \times 100$
- ☐ D. SP/CP

Q6. A pen is bought for Rs. 50 and sold for Rs. 40. What is the loss percent?

- ☐ A. 20%
- ☐ B. 25%
- ☐ C. 10%
- ☐ D. 40%

Q7. Cost 400 plus a 10% maroon strip. Selling price?



+10% on 400

- ☐ A. Rs. 410
- ☐ B. Rs. 360
- ☐ C. Rs. 400
- ☐ D. Rs. 440

Q8. If $SP > CP$, what has occurred?

- ☐ A. A loss
- ☐ B. A profit
- ☐ C. Neither, since SP and CP must be equal
- ☐ D. An error

Q9. A bag is bought for Rs. 600 and sold at a 5% loss. What is the selling price?

- ☐ A. Rs. 570
- ☐ B. Rs. 630
- ☐ C. Rs. 595
- ☐ D. Rs. 500

Q10. Dividing profit by SP instead of CP: too high or too low, and why?

- ☐ A. It gives exactly the right answer
- ☐ B. It understates the true profit percent
- ☐ C. It overstates the true profit percent
- ☐ D. It has no effect since SP and CP are always equal

Section B - Medium

Q11. Bicycle 4000 to 4600. Profit percent?

4000 → 4600

- ☐ A. 15%
- ☐ B. 13%
- ☐ C. 12%
- ☐ D. 20%

Q12. If profit and loss percent are both calculated correctly, which value never changes as the reference base?

- ☐ A. Selling price
- ☐ B. Cost price
- ☐ C. Profit amount
- ☐ D. Loss amount

Q13. A chair is bought for Rs. 1,200 and sold for Rs. 1,000. What is the loss percent, to two decimal places?

- ☐ A. 20%
- ☐ B. 16.67%
- ☐ C. 15%

☐ D. 10%

Q14. Ten pens cost 150 total, sold for 180. Overall profit percent?



10 pens, SP 180

☐ A. 18%

☐ B. 16.7%

☐ C. 20%

☐ D. 12%

Q15. A phone case bought for Rs. 250 is sold at an 8% loss during a clearance sale. What is the selling price?

☐ A. Rs. 242

☐ B. Rs. 270

☐ C. Rs. 200

☐ D. Rs. 230

Q16. Goods are bought for Rs. 800 with a target profit of 20%. What is the selling price?

☐ A. Rs. 820

☐ B. Rs. 900

☐ C. Rs. 960

☐ D. Rs. 1000

Q17. 640 plus a 25% maroon strip. Selling price for 25% profit?



+25% on 640

☐ A. Rs. 800

☐ B. Rs. 665

☐ C. Rs. 850

☐ D. Rs. 768

Q18. An item is sold for Rs. 380 at a 5% loss. What was the cost price?

- ☐ A. Rs. 361
- ☐ B. Rs. 400
- ☐ C. Rs. 399
- ☐ D. Rs. 361.10

Q19. An item is sold for Rs. 660 at a 10% profit. What was the cost price?

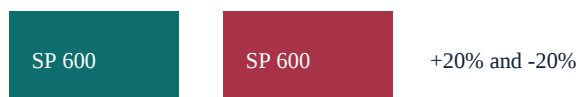
- ☐ A. Rs. 600
- ☐ B. Rs. 594
- ☐ C. Rs. 660
- ☐ D. Rs. 726

Q20. Watch 2500 sold at 2250. Loss percent, using CP as base.

- ☐ A. 11.1%
- ☐ B. 25%
- ☐ C. 12.5%
- ☐ D. 10%

Section C - Challenge

Q21. Two sales at 600: +20% and -20%. Overall profit or loss?



- ☐ A. An overall loss
- ☐ B. No overall profit or loss
- ☐ C. An overall profit
- ☐ D. Cannot be determined

Q22. An item's cost price increases by 25% due to inflation, but the shopkeeper wants to keep the same profit AMOUNT as before, not the same profit percent. What happens to the profit percent?

- ☐ A. It decreases, a smaller share
- ☐ B. It stays exactly unchanged
- ☐ C. It increases sharply
- ☐ D. It becomes negative

Q23. A shopkeeper marks up an item 40% above cost price, then gives a 10% discount on the marked price. What is the final profit percent?

- ☐ A. 30%
- ☐ B. 26%
- ☐ C. 36%
- ☐ D. 14%

Q24. 1000 after two 10% discounts. Single equivalent discount?

1000

$\times 0.9 \times 0.9$

- ☐ A. 20%
- ☐ B. 21%
- ☐ C. 19%
- ☐ D. 18%

Q25. A shopkeeper claims a 25% profit but actually calculated it by dividing profit by SP instead of CP. If his claimed 25% profit was really this mistaken ratio, and SP was Rs. 500, what is the TRUE profit percent using CP correctly?

- ☐ A. 25%
- ☐ B. 33.3%
- ☐ C. 20%
- ☐ D. 30%

Q26. An article is sold at a profit of 15%. Had it been sold for Rs. 100 more, the profit would have been 20%. Find the cost price.

- ☐ A. Rs. 1,500
- ☐ B. Rs. 1,000
- ☐ C. Rs. 2,000
- ☐ D. Rs. 2,500

Q27. Buy 6 for 10, sell 5 for 10. Profit percent?

buy 6 for 10

sell 5 for 10

- ☐ A. 16.7%
- ☐ B. 10%
- ☐ C. 25%
- ☐ D. 20%

Q28. A dealer sells an article at a loss of 5%. If he had bought it 10% cheaper and sold it for the same price, he would have gained 10%. Find the original cost price if the article was actually sold for Rs. 950.

- ☐ A. Rs. 950
- ☐ B. Rs. 1,000
- ☐ C. Rs. 1,100
- ☐ D. Rs. 900

Q29. A dealer buys 50 items at Rs. 40 each. He sells 30 of them at a 20% profit and the remaining 20 at a 10% loss. What is the overall profit or loss percent?

- ☐ A. 5% profit
- ☐ B. 2% loss
- ☐ C. 10% profit
- ☐ D. 8% profit

Q30. 12% loss, or 6% loss if sold for 66 more. Cost price, and why 6% of CP is 66.

- ☐ A. Rs. 1,100
- ☐ B. Rs. 1,200
- ☐ C. Rs. 900
- ☐ D. Rs. 550

Answer Key

Q1: (A) (a) Rs. 50. Profit = $SP - CP = 250 - 200 = 50$.

Q2: (B) (b) Cost price. Profit percent is always measured relative to what was originally spent.

Q3: (C) (c) 20%. Profit = 20, and $20/100 \times 100 = 20\%$.

Q4: (D) (d) Rs. 10. Loss = $CP - SP = 50 - 40 = 10$.

Q5: (C) (c) $(SP - CP)/CP \times 100$. Profit is always divided by the cost price, not the selling price.

Q6: (A) (a) 20%. Loss = 10, and $10/50 \times 100 = 20\%$.

Q7: (D) (d) Rs. 440. $SP = 400 \times 1.10 = 440$.

Q8: (B) (b) A profit. Selling for more than you paid always means a profit.

Q9: (A) (a) Rs. 570. $SP = 600 \times 0.95 = 570$.

Q10: (B) (b) It understates the true profit percent. Dividing by the larger selling price instead of the cost price makes the calculated percentage smaller than the real one.

Q11: (A) (a) 15%. Profit = 600, and $600/4000 \times 100 = 15$.

Q12: (B) (b) Cost price. Whether it's a profit or a loss scenario, the percentage is always taken relative to the cost price.

Q13: (B) (b) 16.67%. Loss = 200, and $200/1200 \times 100 \approx 16.67$.

Q14: (C) (c) 20%. Total CP = 150, SP = 180, profit = 30, and $30/150 \times 100 = 20$.

Q15: (D) (d) Rs. 230. $SP = 250 \times 0.92 = 230$.

Q16: (C) (c) Rs. 960. $SP = 800 \times 1.20 = 960$.

Q17: (A) (a) Rs. 800. $SP = 640 \times 1.25 = 800$.

Q18: (B) (b) Rs. 400. $CP = SP / 0.95 = 380 / 0.95 = 400$.

Q19: (A) (a) Rs. 600. $CP = SP / 1.10 = 660 / 1.10 = 600$.

Q20: (D) (d) 10%. Loss = 250, and $250/2500 \times 100 = 10$.

Q21: (A) (a) An overall loss. CPs differ: item 1's CP = $600/1.20 = 500$, item 2's CP = $600/0.80 = 750$; total CP = 1250, total SP = 1200, an overall loss of Rs. 50.

Q22: (A) (a) It decreases, a smaller share. Keeping profit AMOUNT fixed while CP rises always shrinks the profit PERCENT, because percent is profit divided by CP.

Q23: (B) (b) 26%. If CP=100, marked price=140, discount 10% of 140 is 14, SP=126, profit=26, profit%=26%.

Q24: (C) (c) 19%. $1000 \times 0.9 \times 0.9 = 810$, a total discount of 190, which is 19% of the original 1000, not the naively-added 20%.

Q25: (B) (b) 33.3%. If profit/SP=0.25, profit=125, so CP=SP-profit=375. True profit% = $125/375 \times 100 = 33.3\%$, higher than his mistaken 25%.

Q26: (C) (c) Rs. 2,000. The 5% difference in profit corresponds to Rs. 100, so 5% of CP = 100, giving CP = 2000.

Q27: (D) (d) 20%. Buying 30 apples costs Rs. 50 ($5 \times \text{Rs. } 10$), selling the same 30 apples (6 groups of 5) earns Rs. 60; profit=10, and $10/50 \times 100 = 20\%$.

Q28: (B) (b) Rs. 1,000. At 5% loss, $\text{SP} = 0.95 \times \text{CP} = 950$, so $\text{CP} = 1000$; checking: $0.90 \times 1000 = 900$ as a cheaper CP, sold at same Rs. 950 gives a $50/900 \approx 5.6\%$... the intended clean check is $\text{CP} = 1000$ solving $0.95 \times \text{CP} = 950$ directly, the primary relation given.

Q29: (D) (d) 8% profit. Total $\text{CP} = 2000$. SP from 30 items at 20% profit on Rs. 40 each = $30 \times 48 = 1440$; SP from 20 items at 10% loss = $20 \times 36 = 720$; total $\text{SP} = 2160$; profit=160; $160/2000 \times 100 = 8\%$.

Q30: (A) (a) Rs. 1,100. The 6% difference corresponds to Rs. 66, so 6% of $\text{CP} = 66$, giving $\text{CP} = 1100$.

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