

How to use this worksheet. Sixteen questions, about 20 minutes, with the answer key at the end. Never assume opposite percentage changes cancel out — always recompute. The cost price is the anchor: find it first, always.

Formula sheet

Percentage increase and decrease of the same size never cancel — a 20% cut then a 20% rise ends 4% below the start

To compare A vs B: "A is x% more than B" is not the same as "B is x% less than A"

In profit and loss, always work back to the cost price before applying any new percentage

Marked price → discount → selling price → compare with cost price for real profit or loss

Section A · Percentages — Basic percentage calculations and comparisons

Eight questions. Percentage increase and decrease never simply cancel.

- 1.** If 20% of a number is 50, the number is:
(1) 100 (2) 200 (3) 250 (4) 300
- 2.** What is 15% of 800?
(1) 100 (2) 110 (3) 120 (4) 130
- 3.** A number is increased by 25% and becomes 100. The original number was:
(1) 70 (2) 75 (3) 80 (4) 85
- 4.** If A's income is 20% more than B's, then B's income is what percent less than A's?
(1) 20% (2) 16.67% (3) 25% (4) 15%
- 5.** The price of an item is reduced by 20% and then increased by 20%. Compared to the original price, the final price is:
(1) Unchanged (2) 4% lower (3) 4% higher (4) 20% lower
- 6.** In an election between two candidates, the winner got 60% of the votes and won by 200 votes. The total number of votes cast was:
(1) 800 (2) 1000 (3) 1200 (4) 1600
- 7.** A student needs 40% marks to pass. He scored 150 marks and failed by 30 marks. The maximum marks were:
(1) 360 (2) 420 (3) 450 (4) 480
- 8.** A number when increased by 40% gives 210. The number is:
(1) 140 (2) 150 (3) 160 (4) 170

Working space — Questions 1 to 8

Write the formula before you substitute.

Section B · Profit and Loss — Cost price, selling price and discount

Eight questions. One is a real previous year question.

- 9.** A shopkeeper buys an article for Rs. 400 and sells it for Rs. 460. His profit percentage is:
(1) 10% (2) 12% (3) 15% (4) 20%
- 10.** An article is sold at a loss of 10%. If it had been sold for Rs. 80 more, there would have been a gain of 10%. The cost price is:
(1) Rs. 300 (2) Rs. 350 (3) Rs. 400 (4) Rs. 450

11. A trader marks his goods 40% above the cost price and allows a discount of 10%. His actual profit percentage is:

(1) 26% (2) 28% (3) 30% (4) 32%

12. By selling a fan for Rs. 3,540, a shopkeeper gains 18 percent. Find the selling price when the profit is reduced to 12 percent. **[PYQ 2021 · Shift 3]**

(1) Rs. 2,900 (2) Rs. 3,360 (3) Rs. 2,640 (4) Rs. 3,000

13. A man buys two articles for Rs. 500 each. He sells one at a profit of 20% and the other at a loss of 20%. Overall, he:

(1) Makes no profit or loss (2) Makes a profit (3) Makes a loss (4) Cannot be determined

14. A man sells two horses for Rs. 1000 each, one at a gain of 20% and the other at a loss of 20%. Taking both transactions together, he:

(1) Makes no profit or loss (2) Gains Rs. 83.33 overall (3) Loses Rs. 83.33 overall (4) Loses Rs. 100 overall

15. A shopkeeper allows a discount of 10% on the marked price and still makes a profit of 8%. If the marked price is Rs. 220, the cost price is:

(1) Rs. 175 (2) Rs. 180 (3) Rs. 183.33 (4) Rs. 190

16. A retailer buys goods at a 20% discount on the marked price and sells at the marked price. His profit percentage is:

(1) 20% (2) 25% (3) 22% (4) 24%

Working space — Questions 9 to 16

Write the formula before you substitute.

Answer key

Check only after you have attempted every question. Full worked solutions for each one are on the worksheet page at aviatelearnings.com.

1. (2)	5. (2)	9. (3)	13. (1)	
2. (3)	6. (2)	10. (3)	14. (3)	
3. (3)	7. (3)	11. (2)	15. (3)	
4. (2)	8. (2)	12. (2)	16. (2)	

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