

Percentage, Profit and Loss Practice Set (40 Questions with Answers)

40 multiple-choice questions on percentages, successive changes, profit and loss, discounts and mixed word problems, in the style of placement aptitude tests, with a worked answer for each. Every answer was checked by code.

Free Free PDF Beginner By wins.solutions team Updated 3 Oct 2026

Short answer

Percentages, profit and loss and discounts appear in almost every numerical section of placement aptitude tests. This set has 40 practice questions on percentage basics, successive changes, profit and loss, marked price and discount, and mixed word problems, with a worked answer for each at the end. Every answer was checked by code. Aim for 40 questions in 40 minutes, then revise the topics where you guessed.

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Percentage, Profit and Loss Practice Set (40 Questions with Answers)

These are practice questions written in the style of company aptitude tests. They are not actual questions from any company's test. Time yourself: aim for **40 questions in 40 minutes**, then check the answers and explanations at the end.

Every answer was computed by code before publishing. For the formulas behind them, use the **quantitative aptitude formulas** guide or the one-page **formula sheet**. For reasoning questions, use the **logical reasoning practice set**.

How to use this set

Do one section at a time without the answers. Mark every question you guessed, even if you got it right. Those are the topics to revise first. Most mistakes in this topic come from taking a percentage of the wrong base, so before each calculation, say out loud what the 100% is.

A. Percentages

1. What is 18% of 650?

(a) 117 (b) 107 (c) 113 (d) 121

2. 45 is what percent of 180?

(a) 20% (b) 30% (c) 25% (d) 35%

3. A number increased by 20% becomes 540. What is the number?

(a) 432 (b) 468 (c) 480 (d) 450

4. A salary of ₹48,000 is cut by 12.5%. What is the new salary?

(a) ₹41,500 (b) ₹42,000 (c) ₹42,500 (d) ₹43,200

5. A's income is 25% more than B's. By what percent is B's income less than A's?

(a) 15% (b) 22.5% (c) 20% (d) 25%

6. A town's population of 50,000 grows by 10% a year. What is it after 2 years?

(a) 60,500 (b) 60,000 (c) 61,000 (d) 61,500

7. A student needs 40% to pass. She scores 178 marks and fails by 22 marks. What are the maximum marks?

(a) 450 (b) 500 (c) 480 (d) 550

8. In an election between two candidates, the winner gets 58% of the valid votes and wins by 4,800 votes. How many valid votes were cast?

(a) 24,000 (b) 28,000 (c) 32,000 (d) 30,000

B. Successive changes

9. A price is increased by 20% and then decreased by 20%. What is the net change?

(a) No change (b) 4% decrease (c) 4% increase (d) 2% decrease

10. Two successive discounts of 10% and 20% are equal to a single discount of:

(a) 28% (b) 26% (c) 27% (d) 30%

11. The price of petrol rises by 25%. By what percent must a family cut its consumption to keep spending the same?

(a) 15% (b) 16% (c) 20% (d) 25%

12. A rectangle's length increases by 10% and its breadth decreases by 10%. What happens to its area?

(a) No change (b) 1% decrease (c) 1% increase (d) 2% decrease

13. A number is increased by 30%, and the result is then increased by 10%. What is the overall increase?

(a) 40% (b) 43% (c) 41% (d) 44%

14. The price of sugar falls by 20%, so a person can buy 5 kg more for ₹600. What was the original price per kg?

(a) ₹24 (b) ₹28 (c) ₹32 (d) ₹30

C. Profit and loss

15. An article bought for ₹800 is sold for ₹920. What is the profit percent?

(a) 15% (b) 12% (c) 18% (d) 20%

16. An article is sold for ₹1,140 at a loss of 5%. What was its cost price?

(a) ₹1,180 (b) ₹1,197 (c) ₹1,200 (d) ₹1,220

17. An article costs ₹2,500. At what price must it be sold to gain 12%?

(a) ₹2,800 (b) ₹2,750 (c) ₹2,850 (d) ₹2,900

18. The selling price of 12 articles equals the cost price of 15 articles. What is the profit percent?

(a) 20% (b) 30% (c) 25% (d) 33.33%

19. A shopkeeper sells two items at ₹1,200 each, gaining 20% on one and losing 20% on the other. What is the overall result?
(a) No profit, no loss (b) 4% loss (c) 4% gain (d) 2% loss
20. Selling an article for ₹720 means a 10% loss. At what price must it be sold to gain 15%?
(a) ₹880 (b) ₹920 (c) ₹900 (d) ₹940
21. A trader marks goods 40% above cost and then gives a 25% discount. What is the profit percent?
(a) 7.5% (b) 10% (c) 5% (d) 15%
22. A dealer sells at cost price but uses a 900 g weight for 1 kg. What is his gain percent?
(a) 11.11% (b) 9.09% (c) 10% (d) 12.5%
23. A man buys oranges at 4 for ₹10 and sells them at 5 for ₹15. What is his profit percent?
(a) 15% (b) 20% (c) 25% (d) 50%
24. The profit on an article is 20% of its selling price. What is the profit as a percent of the cost price?
(a) 16.67% (b) 20% (c) 22.5% (d) 25%

D. Discounts and marked price

25. An item marked ₹1,500 is sold at a 12% discount. What is the selling price?
(a) ₹1,300 (b) ₹1,340 (c) ₹1,380 (d) ₹1,320
26. After a 15% discount, an item sells for ₹1,700. What was the marked price?
(a) ₹2,000 (b) ₹1,955 (c) ₹2,040 (d) ₹2,100
27. Goods are marked 30% above cost and sold at a 10% discount. What is the profit percent?
(a) 13% (b) 15% (c) 17% (d) 20%
28. A shopkeeper wants a 20% profit after giving a 20% discount. How far above cost must he mark the price?
(a) 40% (b) 50% (c) 44% (d) 60%
29. A "buy 3, get 1 free" offer is the same as what discount on the price of all 4 items?
(a) 20% (b) 25% (c) 30% (d) 33.33%
30. An item costs ₹600, is marked ₹800 and sold at a 10% discount. What is the profit percent?
(a) 15% (b) 18% (c) 25% (d) 20%
31. An item marked ₹2,000 gets successive discounts of 20% and 5%. What is the selling price?
(a) ₹1,520 (b) ₹1,500 (c) ₹1,540 (d) ₹1,560
32. An item marked ₹1,000 is sold for ₹850 at a profit of 6.25%. What was its cost price?
(a) ₹780 (b) ₹820 (c) ₹800 (d) ₹840

E. Mixed problems

33. A person spends 75% of her income. Her income rises by 20% and her spending by 10%. By what percent do her savings rise?
(a) 50% (b) 30% (c) 40% (d) 60%
34. 30% of A equals 45% of B. What is the ratio A : B?
(a) 2 : 3 (b) 3 : 2 (c) 3 : 4 (d) 4 : 3
35. Of 1,200 students, 35% play cricket, 25% play football and 10% play both. How many play neither?
(a) 480 (b) 540 (c) 660 (d) 600

36. Fresh fruit is 68% water and dried fruit is 20% water. How many kg of dried fruit do you get from 100 kg of fresh fruit?
(a) 32 (b) 40 (c) 36 (d) 45
37. A phone bought for ₹25,000 loses 20% of its value each year. What is it worth after 2 years?
(a) ₹15,000 (b) ₹17,000 (c) ₹16,000 (d) ₹18,000
38. A sells a cycle to B at a 10% profit, and B sells it to C at a 20% profit. C pays ₹2,640. What did the cycle cost A?
(a) ₹2,000 (b) ₹1,800 (c) ₹2,100 (d) ₹2,200
39. Ravi's marks are 20% less than Priya's. By what percent are Priya's marks more than Ravi's?
(a) 20% (b) 25% (c) 22% (d) 30%
40. A shopkeeper mixes 50 kg of rice bought at ₹40 a kg with 30 kg bought at ₹48 a kg, and sells the mixture at ₹50 a kg. What is his profit percent, to one decimal place?
(a) 14.5% (b) 18.2% (c) 20.0% (d) 16.3%

Answers and explanations

Percentages

- (a) 117. $18\% \text{ of } 650 = 0.18 \times 650 = 117$.
- (c) 25%. $45 \div 180 \times 100 = 25\%$.
- (d) 450. The number $\times 1.2 = 540$, so the number is $540 \div 1.2 = 450$.
- (b) ₹42,000. 12.5% of 48,000 is 6,000, so the new salary is ₹42,000.
- (c) 20%. If B earns 100, A earns 125. B's 100 is 25 less than A's 125, and $25 \div 125 = 20\%$.
- (a) 60,500. $50,000 \times 1.1 \times 1.1 = 60,500$. The second year's 10% is on 55,000, not on 50,000.
- (b) 500. The pass mark is $178 + 22 = 200$, which is 40% of the maximum, so the maximum is $200 \div 0.4 = 500$.
- (d) 30,000. The loser gets 42%, so the margin is $58\% - 42\% = 16\%$ of the votes. $16\% = 4,800$, so $100\% = 30,000$.

Successive changes

- (b) 4% decrease. $1.2 \times 0.8 = 0.96$, so the price ends 4% lower. The decrease is taken on the higher price.
- (a) 28%. $0.9 \times 0.8 = 0.72$ of the price is paid, so the single discount is 28%.
- (c) 20%. The new price is 1.25 times the old, so consumption must be $1 \div 1.25 = 0.8$ of before: a 20% cut.
- (b) 1% decrease. $1.1 \times 0.9 = 0.99$, so the area falls by 1%.
- (b) 43%. $1.3 \times 1.1 = 1.43$, an overall increase of 43%.
- (d) ₹30. The 20% saving on ₹600 is ₹120, which buys 5 kg at the new price, so the new price is ₹24 a kg. The original price is $24 \div 0.8 = ₹30$. Check: ₹600 buys 20 kg before and 25 kg after.

Profit and loss

- (a) 15%. Profit is ₹120 on a cost of ₹800: $120 \div 800 = 15\%$.
- (c) ₹1,200. The selling price is 95% of the cost, so the cost is $1,140 \div 0.95 = ₹1,200$.
- (a) ₹2,800. $2,500 \times 1.12 = ₹2,800$.
- (c) 25%. Selling 12 articles earns what 15 cost, a profit of 3 articles' cost on 12: $3 \div 12 = 25\%$.
- (b) 4% loss. The costs were $1,200 \div 1.2 = ₹1,000$ and $1,200 \div 0.8 = ₹1,500$, a total of ₹2,500. Sales were ₹2,400, a loss of ₹100, which is 4%.

20. (b) ₹920. The cost is $720 \div 0.9 = ₹800$, and $800 \times 1.15 = ₹920$.
21. (c) 5%. $1.4 \times 0.75 = 1.05$ of the cost, a 5% profit.
22. (a) 11.11%. He gives 900 g and is paid for 1,000 g, gaining 100 g on 900 g: $100 \div 900 = 11.11\%$.
23. (b) 20%. Each orange costs ₹2.50 and sells for ₹3: a profit of 0.50 on 2.50, which is 20%.
24. (d) 25%. If the selling price is 100, the profit is 20 and the cost is 80: $20 \div 80 = 25\%$.

Discounts and marked price

25. (d) ₹1,320. $1,500 \times 0.88 = ₹1,320$.
26. (a) ₹2,000. The selling price is 85% of the marked price: $1,700 \div 0.85 = ₹2,000$.
27. (c) 17%. $1.3 \times 0.9 = 1.17$ of the cost, a 17% profit.
28. (b) 50%. The selling price must be $1.2 \times$ cost, and it is $0.8 \times$ the marked price, so the marked price is $1.2 \div 0.8 = 1.5 \times$ cost: 50% above.
29. (b) 25%. You pay for 3 items and take 4, so you get 1 of every 4 free: 25%.
30. (d) 20%. The selling price is $800 \times 0.9 = ₹720$, a profit of ₹120 on ₹600: 20%.
31. (a) ₹1,520. $2,000 \times 0.8 \times 0.95 = ₹1,520$.
32. (c) ₹800. The selling price is 106.25% of the cost: $850 \div 1.0625 = ₹800$.

Mixed problems

33. (a) 50%. On an income of 100 she spends 75 and saves 25. Then she earns 120, spends 82.5 and saves 37.5: an increase of 12.5 on 25, which is 50%.
34. (b) 3 : 2. $0.3A = 0.45B$, so $A \div B = 0.45 \div 0.3 = 1.5$, which is 3 : 2.
35. (d) 600. Those who play at least one: $35\% + 25\% - 10\% = 50\%$. So 50% of 1,200 = 600 play neither.
36. (b) 40. The solid part, 32 kg, doesn't change. In dried fruit it is 80% of the weight, so the dried weight is $32 \div 0.8 = 40$ kg.
37. (c) ₹16,000. $25,000 \times 0.8 \times 0.8 = ₹16,000$. The second year's 20% is on ₹20,000, not on ₹25,000.
38. (a) ₹2,000. $2,640 \div (1.1 \times 1.2) = 2,640 \div 1.32 = ₹2,000$.
39. (b) 25%. If Priya scores 100, Ravi scores 80. Priya's 100 is 20 more than Ravi's 80: $20 \div 80 = 25\%$.
40. (d) 16.3%. Cost: $50 \times 40 + 30 \times 48 = ₹3,440$. Sales: $80 \times 50 = ₹4,000$. Profit ₹560 on ₹3,440 = 16.28%, which is 16.3% to one decimal place.

Score yourself

Score	What to do next
36–40	You are ready for the percentage questions in most aptitude rounds. Keep your speed up with one timed set a week.
28–35	Revise the sections where you lost marks, then redo those questions in half the time.
Below 28	Learn the method for each section from the explanations and the formulas guide , then attempt the set again in a week.

Preparing for a specific test? The **TCS NQT guide** shows what its numerical ability section covers and fits this set into a four-week plan.