CLASS 8 · MATHEMATICS

Fractions in Disguise

Sample paper · 15 questions · 22 marks

10 objective questions × 1 mark. Five written-response questions: 12 marks. Write your working where needed. Suggested time: 45 minutes. Answers and marking guidance follow the questions.

Original Evater practice material aligned with these school topics. Not an official NCERT paper or marking scheme. No automatic grading is implied.

Section A · Objective questions (10 marks)

1. Which percentage is the same as the fraction 3/5?

A. 75%

B. 35%

C. 6%

D. 60%

2. What is 25% of 240?

A. 120

B. 80

C. 60

D. 24

3. A water bottle costs Rs 500. Its price rises by 10%. The new price is:

A. Rs 550

B. Rs 490

C. Rs 510

D. Rs 600

4. Meena scores 36 marks out of 50 in a quiz. Her score as a percentage is:

A. 72%

B. 36%

C. 86%

D. 64%

EVATER

5. A shop offers a 15% discount on a bag marked Rs 800. The selling price is:

A. Rs 120

B. Rs 720

C. Rs 680

D. Rs 785

6. A trader buys a lamp for Rs 200 and sells it for Rs 250. His profit percentage is:

A. 50%

B. 20%

C. 55%

D. 25%

7. Which of these numbers is the largest?

A. 0.45

B. 7/20

C. 41%

D. 2/5

8. A town has 2000 students. The number grows by 10% of the original count every year, with no compounding. After 2 years the count is:

A. 4000

B. 2400

C. 2420

D. 2200

9. 30% of a number is 45. The number is:

A. 135

B. 150

C. 13.5

D. 75

10. A shopkeeper's sales are Rs 50,000. The goods cost him Rs 30,000 and his other expenses are Rs 5,000. His net profit is:

A. Rs 25,000

B. Rs 20,000

C. Rs 45,000

D. Rs 15,000

EVATER

Section B · Written responses (12 marks)

Attempt all five. Use a separate sheet if you need more space. The marks for each question are shown.

11. Riya scores 27 out of 30 in a Maths test and 40 out of 50 in a Science test. Use percentages to decide in which test she did better. [2 marks]

12. A shirt is marked Rs 1200 and is sold at a 25% discount. Find the discount amount and the selling price. [2 marks]

13. A price of Rs 100 is first increased by 50% and the new price is then decreased by 50%. Show that the final price is not Rs 100, and explain why. [2 marks]

14. Asha deposits Rs 10,000 in a scheme that pays 8% of the original deposit every year, without compounding. Find the interest earned in 3 years and the total amount after 3 years. [3 marks]

15. A shopkeeper buys a toy for Rs 350 and sells it for Rs 420. Find his profit and profit percentage. At what price should he sell it to make a 30% profit? [3 marks]

EVATER

Answers & marking guidance

Use these after attempting the paper. Accept equivalent correct reasoning and sensible units. These are Evater model answers, not an official marking scheme.

Section A · 1 mark each

1. D — 3/5 = 3/5 x 100% = 60%.

2. C — 25% of 240 = (25/100) x 240 = 60.

3. A — Increase = 10% of 500 = Rs 50, so the new price is Rs 550.

4. A — 36/50 x 100 = 72%.

5. C — Discount = 15% of 800 = Rs 120, so the selling price is 800 - 120 = Rs 680.

6. D — Profit = Rs 50 on a cost price of Rs 200, so profit% = 50/200 x 100 = 25%.

7. A — 41% = 0.41, 2/5 = 0.40, 7/20 = 0.35, and 0.45 is greater than all three.

8. B — Each year adds 10% of 2000 = 200, so after 2 years it is 2000 + 400 = 2400.

9. B — If 30% of N = 45, then N = 45 x 100/30 = 150.

10. D — Gross profit = 50,000 - 30,000 = Rs 20,000; net profit = 20,000 - 5,000 = Rs 15,000.

Section B · Model answers

11. Maths: 27/30 x 100 = 90%. Science: 40/50 x 100 = 80%. Since 90% > 80%, Riya did better in the Maths test, even though she scored more raw marks in Science.

Marking: 1 mark for both correct percentages; 1 mark for the correct comparison and conclusion.

12. Discount = 25% of 1200 = Rs 300. Selling price = 1200 - 300 = Rs 900.

Marking: 1 mark for the discount of Rs 300; 1 mark for the selling price of Rs 900.

13. After a 50% increase the price is Rs 150. A 50% decrease on Rs 150 removes Rs 75, giving Rs 75. The second change acts on a larger base (Rs 150), so the decrease is bigger than the earlier increase and the final price is lower.

Marking: 1 mark for the final price of Rs 75; 1 mark for explaining that the two 50% changes act on different bases.

14. Interest each year = 8% of 10,000 = Rs 800. Over 3 years, interest = 3 x 800 = Rs 2400. Total amount = 10,000 + 2400 = Rs 12,400.

Marking: 1 mark for Rs 800 per year; 1 mark for total interest Rs 2400; 1 mark for the final amount Rs 12,400.

15. Profit = 420 - 350 = Rs 70. Profit% = 70/350 x 100 = 20%. For a 30% profit, profit = 30% of 350 = Rs 105, so the selling price should be 350 + 105 = Rs 455.

Marking: 1 mark for profit Rs 70; 1 mark for 20%; 1 mark for the selling price Rs 455.

EVATER

Topic references

NCERT Class 8 Mathematics, Ganita Prakash, Chapter 8: Fractions in Disguise.

https://ncert.nic.in/textbook/pdf/hegp201.pdf

Concept reference only. Questions and model answers are original Evater practice material, not an official NCERT paper.

Questions, contexts, values, options and model answers in this edition were written for Evater. Source references support the concepts; textbook exercises, illustrations and third-party question-bank wording are not reproduced. Edition: 16 November 2026.

EVATER