# Mathematics

## Practice Test Paper 8

### (Ganita Prakash Part 2 | Chapter 3: Proportional Reasoning–2)

### Class VIII | 2026–27

Time Allowed: 45 Minutes | Maximum Marks: 25

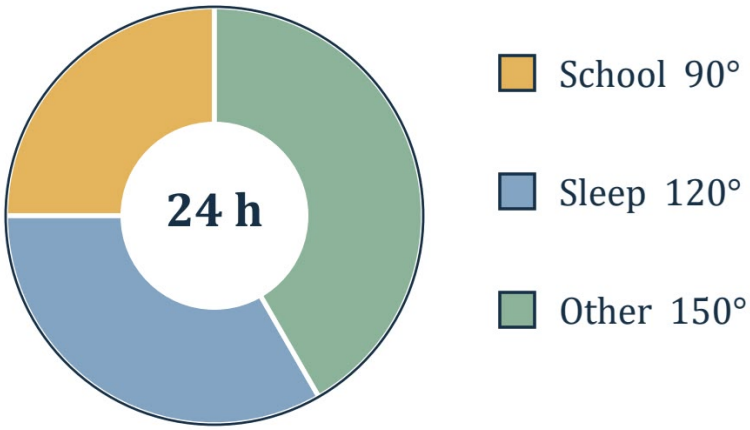
**General Instructions**

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary working in Sections B, C and D.
4. Study the images and tables carefully before answering the related questions.

## SECTION A

(5 questions × 1 mark = 5 marks)

**1.** The circular chart represents one 24-hour day. How many hours does the School sector represent?




(A) 4 hours
(B) 6 hours
(C) 8 hours
(D) 10 hours

**2.** Which RF makes a fixed ground distance appear longest on the map?

(A) 1 : 10000
(B) 1 : 50000
(C) 1 : 100000
(D) 1 : 200000

**3.** One quantity increases while another decreases. Which statement is always justified?

(A) They must be in inverse proportion
(B) They must have a constant sum
(C) More information is needed to test inverse proportion
(D) Their product must decrease

**4.** Which is the simplest form of 15 : 25 : 35 : 45?

(A) 3 : 5 : 7 : 9 (B) 5 : 5 : 7 : 9

(C) 1 : 2 : 3 : 4 (D) 15 : 5 : 7 : 9

**5.** If a pie chart shows 25 out of 100 votes for a category, doubling all category counts makes that sector angle:

(A) Double (B) Half

(C) Unchanged (D) 360°

## SECTION B

(4 questions × 2 marks = 8 marks)

**6.** Two shares are in the ratio 3 : 5, and the larger share exceeds the smaller by ₹40. Find both shares.

**7.** Does the table show inverse proportion? Check all products and explain why opposite changes do not settle the question.

| x | 2 | 4 | 6 |
|---|---|---|---|
| y | 12 | 10 | 8 |

**8.** Half a job remains. Two workers would take 6 hours and 3 hours respectively to do the whole job alone. How long will they take together to finish the remaining half? Assume constant rates.

**9.** A school keeps its opening and closing times unchanged but lengthens its lunch break. Can the old teaching time be used as a constant when calculating new period lengths? Explain.

## SECTION C

(3 questions × 3 marks = 9 marks)

**10.** A rectangular field is 200 m wide and 300 m long. It is drawn at RF 1 : 25000. Find both drawing dimensions and the drawing's perimeter.

**11.** Twenty-five pupils are asked for their favourite subject, but some choose two subjects, giving 40 votes. Explain why the counts cannot show shares of these 25 pupils in one pie chart. State a correction. If 5 pupils then choose science, find its sector angle.

**12.** A 72 L mixture has three components in the ratio 1 : 2 : 3. After dividing it correctly, 6 L of the first component is added. Find the original amounts and the new ratio. Does the mixture keep the same proportions?

## SECTION D

(Application Based Question - 3 marks)

**13.** Identical pumps fill one tank at steady rates. The table shows the times, with no leakage.

| Pumps | 1 | 2 | 3 |
|---|---|---|---|
| Time for one tank (h) | 18 | 9 | 6 |

(i) Find the constant product of pump count and hours.

(ii) Find the time for six pumps to fill one tank.

(iii) How long would the same six pumps take to fill two identical tanks one after the other?