Mathematics

Practice Test Paper 3

(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. Batch B must have the same proportions as Batch A. Which ingredient has the wrong quantity?

Ingredient	Batch A (cups)	Batch B (cups)
Rice	4	6
Dal	2	3
Water	6	8

(A) Rice
(B) Dal
(C) Water
(D) None

2. The sector angles in a complete pie chart must add to:

(A) 90°
(B) 180°
(C) 270°
(D) 360°

3. A map scale compares which two quantities?

(A) Map distance and travel time
(B) Map distance and geographical distance
(C) Road distance and fuel
(D) Population and area

4. If x and y are inversely proportional and x becomes four times as large, y becomes:

(A) Four times as large
(B) Twice as large
(C) One-fourth as large
(D) Unchanged

5. A whole is divided in the ratio 5 : 7 : 8. The middle share is what fraction of the whole?

(A) $\frac{7}{8}$ (B) $\frac{7}{13}$

(C) $\frac{7}{20}$ (D) $\frac{7}{15}$

SECTION B

(4 questions × 2 marks = 8 marks)

6. Write 0.5 : 1.5 : 2 as a ratio of whole numbers in simplest form. Explain your first step.

7. Can the side lengths of a triangle be in the ratio 2 : 3 : 6? Give a reason that applies to every scale factor.

8. Machine A completes a batch in 4 hours and Machine B in 12 hours. What fraction of a batch does each complete in one hour, and how many times as fast is A? Assume steady rates.

9. Complete the two blank entries, given that x and y are inversely proportional.

x	4	6	?
y	15	?	5

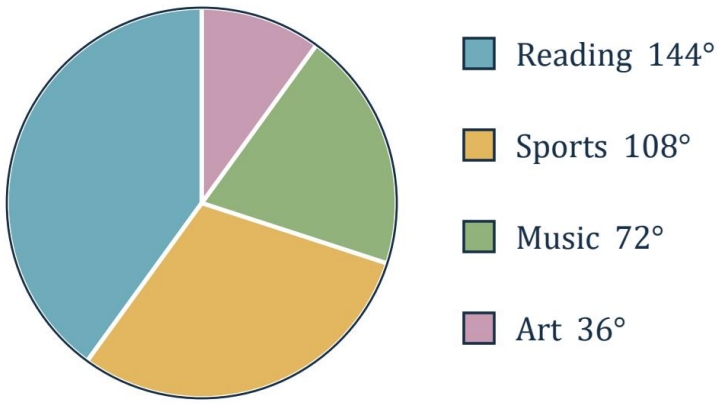
SECTION C

(3 questions × 3 marks = 9 marks)

10. On a map with RF 1 : 50000, a 6 cm line is said to represent 300 km. Correct the claim, showing the conversion of units.

11. Divide 90 m of ribbon in the ratio 2 : 3 : 4. Find each length and the difference between the longest and shortest pieces.

12. The pie chart represents the hobbies of 200 pupils. Find the numbers choosing reading and art, then give the ratio of the numbers choosing sports and music.



SECTION D

(Application Based Question - 3 marks)

13. Fifteen workers can build a wall in 12 days. The same wall is now required in 9 days. All workers have the same steady daily output.

(i) Find the total worker-days needed.

(ii) Find the number of workers required for 9 days.

(iii) How many extra workers must be added to the original team?