Mathematics

Practice Test Paper 7

(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. Which test checks whether a : b and c : d are proportional?

(A) $a + b = c + d$ (B) $a \times d = b \times c$

(C) $a \times b = c \times d$ (D) $a - b = c - d$

2. For a mixture in the ratio 4 : 1 : 5, the first two components together form:

(A) $\frac{1}{4}$ (B) $\frac{1}{2}$

(C) $\frac{4}{5}$ (D) The whole mixture

3. At fixed speed, distance and travel time are:

(A) In inverse proportion (B) In direct proportion

(C) Always equal (D) Never proportional

4. Which row contains a ratio that is not equivalent to 2 : 3 : 4?

Row	First	Second	Third
P	4	6	8
Q	6	9	12
R	8	12	18
S	1	1.5	2

(A) Row P (B) Row Q

(C) Row R (D) Row S

5. Equal sector angles in the same pie chart represent:

(A) Equal category counts (B) Equal label lengths

(C) Equal prices (D) Different fractions

SECTION B

(4 questions × 2 marks = 8 marks)

6. A map shows 7.2 cm between two villages. If 1 cm represents 5 km, find their geographical distance and write the RF.

7. Can triangles with side ratio 3 : 4 : 5 have different sizes? Give two sets of lengths and explain why the ratio alone does not ensure congruence.

8. Eight identical taps fill a tank in 45 minutes. Find the time for six taps. State what must remain unchanged.

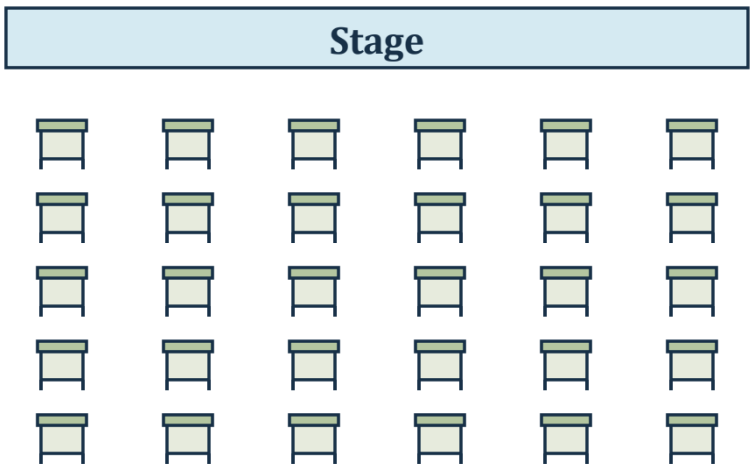
9. The cyclist keeps a steady speed. Find that speed from the table and predict the distance covered in 8 hours.

Time (h)	2	3	5
Distance (km)	10	15	25

SECTION C

(3 questions × 3 marks = 9 marks)

10. The seating plan has five rows of six chairs. Find the total number of chairs and the new number of rows if ten chairs are placed in each row. Explain why the two arrangements form an inverse-proportion example.



11. A worker completes one job in 5 hours. Another worker is twice as fast. Find the second worker's hourly rate and their combined time for one job. Assume they can work together without interference.

12. A survey of 120 children gives 36 votes for mango, 30 for apple, 24 for banana and the rest for orange. Find the missing count and the mango and orange sector angles.

SECTION D

(Application Based Question - 3 marks)

13. A snack mixture contains peanuts, roasted gram and raisins in the ratio 5 : 3 : 2. A packet has total mass 250 g.

(i) Find the mass of peanuts.

(ii) Find the mass of raisins.

(iii) How much roasted gram is needed for a 600 g packet of the same mixture?