Mathematics

Practice Test Paper 4

(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)

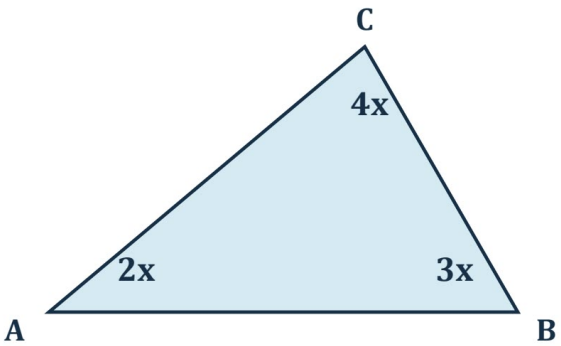
1. Which pair is directly proportional when the unit price is fixed?

(A) Items bought and total cost
(B) Workers and days for a fixed job
(C) Speed and time for a fixed journey
(D) Rows and chairs per row for a fixed total

2. Which set of three amounts is in the ratio 1 : 1.5 : 3?

(A) 2, 3, 6 (B) 2, 4, 6
(C) 3, 4, 9 (D) 1, 2, 3

3. The triangle's angles are labelled in the ratio 2 : 3 : 4. What is its smallest angle?



(A) 20° (B) 30°
(C) 40° (D) 80°

4. If positive x and y satisfy xy = 120, then they are:

(A) Directly proportional (B) Inversely proportional
(C) Always equal (D) Unrelated

5. A pie sector of 180° represents:

(A) One-tenth of the data (B) One-quarter of the data

(C) Half the data (D) All the data

SECTION B

(4 questions × 2 marks = 8 marks)

6. The same beds are arranged in different numbers of rooms. Show that the relationship is inverse and find the total number of beds.

Rooms	8	12	16
Beds per room	6	4	3

7. A 3 m desk is to be drawn at a scale of 1 : 50. Find its length in the drawing.

8. A four-part ratio is 6 : 9 : 12 : 15. Reduce it and find the fraction represented by the last part.

9. Three identical pumps fill a tank in 10 hours. Find the time for five such pumps. State one assumption about their use.

SECTION C

(3 questions × 3 marks = 9 marks)

10. Use the price table to find the cost of one pencil, the cost of 24 pencils, and the greatest number of pencils that can be bought for ₹150.

Pencils	12	18	30
Cost (₹)	72	108	180

11. A student adds 2 to both terms of 5 : 7 and claims that 7 : 9 is equivalent. Check the claim by cross multiplication and explain how an equivalent ratio should be formed.

12. A class survey has 45% choosing science, 30% choosing mathematics and 25% choosing languages. Find the three pie-chart angles and check their sum.

SECTION D

(Application Based Question - 3 marks)

13. A school has 8 teaching periods of 45 minutes each. It changes to 9 equal teaching periods while keeping the total teaching time fixed.

(i) Find the daily teaching time.

(ii) Find the new period length.

(iii) How many minutes shorter is each new period?