Mathematics

Practice Test Paper 1

(Ganita Prakash Part 2 | Chapter 2: The Baudhāyana-Pythagoras Theorem)

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 graphs carefully before answering the related questions.

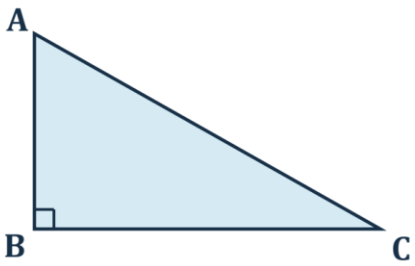
SECTION A

(5 questions × 1 mark = 5 marks)

1. If the side of a square is doubled, its area becomes:

(A) Twice as large
(B) Three times as large
(C) Four times as large
(D) Half as large

2. Which side is the hypotenuse of the triangle shown?



(A) AB
(B) BC
(C) AC
(D) None of these

3. Between which two numbers does $\sqrt{2}$ lie?

(A) 0.4 and 0.5
(B) 1.4 and 1.5
(C) 2.4 and 2.5
(D) 3.4 and 3.5

4. Which is a primitive Baudhāyana triple?

(A) (6, 8, 10)
(B) (9, 12, 15)
(C) (10, 24, 26)
(D) (5, 12, 13)

5. In a right triangle, c is the hypotenuse. Which relation is correct?

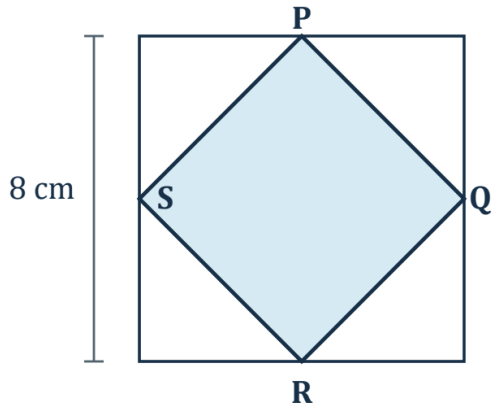
(A) $a^2 + b^2 = c^2$
(B) $a + b = c$
(C) $a^2 = b^2 + c^2$
(D) $a^2 + c^2 = b^2$

SECTION B

(4 questions × 2 marks = 8 marks)

6. The perpendicular sides of a right triangle are 9 cm and 12 cm. Find its hypotenuse.

7. The outer square has side 8 cm. P, Q, R and S are the midpoints of its sides. Find the area and side length of the shaded square.



8. A right triangle has hypotenuse 13 cm and one perpendicular side 5 cm. Find the other perpendicular side and its area.

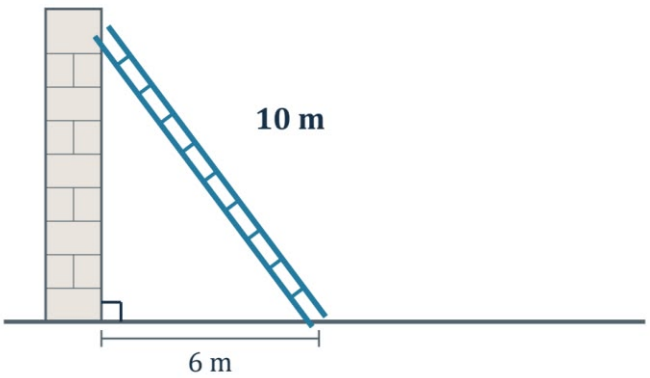
9. Show that (6, 8, 10) is a Baudhāyana triple. Is it primitive? Give its simplest scaled-down triple.

SECTION C

(3 questions × 3 marks = 9 marks)

10. Two squares have sides 7 cm and 12 cm. A new square has their combined area. Find its area and exact side length, and give consecutive whole-number bounds for its side.

11. A 10 m ladder rests against a vertical wall as shown. Find the height reached. If its foot is moved to 8 m from the wall, how far does the top move down?



12. Use the odd square 49 to form a Baudhāyana triple with two consecutive numbers. Verify the triple and say whether it is primitive.

SECTION D

(Application Based Question - 3 marks)

13. A rectangular field is 9 m wide and 40 m long. A person may cross it along the diagonal or walk along the two adjacent sides.

(i) Find the diagonal length.

(ii) Find the length of the route along the two sides.

(iii) How much distance does the diagonal route save?