CHAPTER-2 | The Baudhāyana-pythagoras Theorem

QUIZ PART-02

1. In this activity, students are asked to cut out how many identical squares of paper?
   A. One B. Two
   C. Three D. Four (B)

Explanation : The activity begins by cutting out two identical squares of paper.

2. The paper activity is mainly used for:
   A. Halving a square
   B. Drawing circles
   C. Doubling a square
   D. Finding perimeter (C)

Explanation: The activity demonstrates how to construct a square with double the area.

3. The two squares used in the activity are:
   A. Different in size
   B. Identical
   C. Rectangular
   D. Unequal (B)

Explanation: The chapter specifically mentions using two identical squares.

4. If a square has an area of 25 cm^2, the area of the square formed on its diagonal is:
   A. 5 cm^2
   B. 25 cm^2
   C. 50 cm^2
   D. 100 cm^2 (C)

Explanation: The new square has double the area of the original square. Double of 25 cm^2 is 50 cm^2.

5. The ratio of the area of the original square to the area of the square formed on its diagonal is:
   A. 2 : 1
   B. 1 : 3
   C. 1 : 2
   D. 2 : 3 (C)

Explanation : The diagonal square has twice the area, so the ratio is 1 : 2.

6. The square formed on the diagonal has an area that is:
   A. Half the original area
   B. Equal to the original area
   C. Double the original area
   D. Triple the original area (C)

Explanation : This is the key result demonstrated throughout the chapter.

7. The paper-cutting activity helps students understand the concept through:
   A. Experimentation B. Memorization
   C. Guesswork D. Calculation only(A)

Explanation : The activity provides a hands-on demonstration of the theorem.

8. The figures labeled 1, 2, 3, and 4 in Square 1 represent:
   A. Four equal triangular regions
   B. Four circles
   C. Four rectangles
   D. Four squares (A)

Explanation : The diagonals divide the square into four triangular regions.

9. Which mathematical idea is verified using the paper model?
   A. Area of a rectangle
   B. Area of a circle
   C. Doubling a square using its diagonal
   D. Volume of a cube (C)

Explanation : The paper model visually verifies the doubling-square concept.

10. If the original square has area 40 cm^2, the area of the square formed on its diagonal will be:
    A. 20 cm^2 B. 40 cm^2
    C. 60 cm^2 D. 80 cm^2 (D)

Explanation : The area of the new square is always twice the original area. Double of 40 cm^2 is 80 cm^2.