

CHAPTER-2 | The Baudhāyana-pythagoras Theorem

QUIZ PART-01

1. Baudhayana stated that the square formed on the diagonal of a square has an area _____ the area of the original square.

A. half B. double
C. triple D. equal to (B)

Explanation : Baudhayana stated that the square constructed on the diagonal of a square has twice the area of the original square.

2. Which part of a square is used to construct a square with double the area?

A. Side B. Perimeter
C. Diagonal D. Vertex (C)

Explanation: The diagonal of the original square becomes the side of the new square.

3. The main topic discussed in Part-1 of this chapter is:

A. Halving a Square
B. Hypotenuse
C. Doubling a Square
D. Applications of the Theorem (C)

Explanation: Part-1 focuses on the concept of constructing a square with double the area.

4. The new dotted square shown in the figure has an area that is:

A. Half the original square
B. Equal to the original square
C. Double the original square
D. Triple the original square (C)

Explanation: The dotted square is constructed using the diagonal and has twice the area.

5. The diagonal of a square divides it into:

A. Two congruent triangles
B. Four equal squares
C. Three triangles
D. Two rectangles (A)

Explanation : A diagonal splits a square into two congruent right-angled triangles.

6. The small triangles formed around the dotted square are:

A. Similar only B. Congruent
C. Unequal D. Scalene (B)

Explanation : The chapter states that all the small triangles are congruent to one another.

7. Additional horizontal and vertical lines are drawn to make the _____ clearer.

A. Circles
B. Congruent triangles
C. Perimeter
D. Area formula (B)

Explanation : These lines help visualize that the triangles formed are equal in shape and size.

8. If the area of the original square is 25 sq units, the area of the new square will be:

A. 25 sq units B. 50 sq units
C. 75 sq units D. 100 sq units (B)

Explanation : The new square always has double the area of the original square.

9. The extension of the vertical and horizontal sides passes through the vertices of the dotted square to show:

A. Congruency and symmetry
B. Radius
C. Diameter
D. Circumference (A)

Explanation : The extensions help demonstrate equal parts and symmetry in the construction.

10. Which concept is the foundation of this activity?

A. Area of a circle
B. Doubling the area of a square using its diagonal
C. Volume of a cube
D. Surface area of a cuboid (B)

Explanation : The entire activity demonstrates how a square's diagonal can be used to create a square of double area.