

Basic Geometry Fundamentals

Mathematics · Practice Test · 10 Questions

1. What is the sum of the interior angles of any triangle in Euclidean geometry?

- A) 90 degrees
- B) 180 degrees
- C) 270 degrees
- D) 360 degrees

2. In a right-angled triangle with sides a and b and hypotenuse c , which formula represents the Pythagorean theorem?

- A) $a + b = c$
- B) $a^2 + b^2 = c^2$
- C) $a^2 + b^2 = 2c$
- D) $a \times b = c^2$

3. What is the name of a polygon that has exactly eight sides?

- A) Hexagon
- B) Heptagon
- C) Octagon
- D) Nonagon

4. Which line segment passes through the center of a circle and has both endpoints on the circle?

- A) Radius
- B) Chord
- C) Arc
- D) Diameter

5. Which quadrilateral has four equal sides and four right angles (90 degrees)?

- A) Rhombus
- B) Square
- C) Rectangle
- D) Trapezium

6. What term describes two lines in the same plane that never intersect?

- A) Perpendicular lines
- B) Parallel lines
- C) Skew lines
- D) Intersecting lines

7. What is the three-dimensional geometric shape where every point on the surface is equidistant from the center?

- A) Cylinder
- B) Cone
- C) Sphere
- D) Torus

8. An angle that measures greater than 90 degrees but less than 180 degrees is called what?

- A) Acute angle
- B) Right angle
- C) Obtuse angle
- D) Reflex angle

9. What term refers to the total distance around the outside boundary of a two-dimensional shape?

- A) Area
- B) Volume
- C) Radius
- D) Perimeter

10. What is the sum of the interior angles of any convex quadrilateral?

- A) 180 degrees
- B) 270 degrees
- C) 360 degrees
- D) 540 degrees