

# Basic Geometry Fundamentals

Mathematics · Answer Key · 10 Questions

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**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