

## Circles Quiz Answer Key PDF

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#### What is the formula for the area of a circle?

- A.  $\pi d$
- B.  $2\pi r$
- C.  $\pi r^2$  ✓**
- D.  $\pi r^2/2$

#### What is the term for the distance around a circle?

- A. Radius
- B. Diameter
- C. Circumference ✓**
- D. Area

#### What is the value of $\pi$ approximately?

- A. 2.14
- B. 3.14 ✓**
- C. 4.14
- D. 5.14

#### If the radius of a circle is 5 units, what is the diameter?

- A. 5 units
- B. 10 units ✓**
- C. 15 units
- D. 20 units

#### Which angle is formed by two radii of a circle?

- A. Inscribed Angle
- B. Central Angle ✓**
- C. External Angle
- D. Interior Angle

**What is the significance of  $\pi$  in the context of circles, and how is it used in calculations?**

- A.  $\pi$  is a variable
- B.  $\pi$  is the ratio of circumference to diameter ✓**
- C.  $\pi$  is only used in geometry
- D.  $\pi$  is equal to 3

**How does the concept of a tangent differ from that of a chord in a circle?**

- A. A tangent intersects the circle at two points
- B. A tangent touches the circle at one point ✓**
- C. A chord is a line that touches the circle
- D. A chord has one endpoint on the circle

**What are the characteristics of a tangent to a circle? (Select all that apply)**

- A. It intersects the circle at two points
- B. It is perpendicular to the radius at the point of contact ✓**
- C. It is a type of chord
- D. It touches the circle at exactly one point ✓**

**Which of the following statements are true about a cyclic quadrilateral? (Select all that apply)**

- A. All its vertices lie on a circle ✓**
- B. Opposite angles are supplementary ✓**
- C. It has a tangent at each vertex
- D. Its diagonals are equal

**Explain how you would construct a circle given a fixed radius using a compass and straightedge.**

- A. Draw a line and connect two points
- B. Use a compass to draw a circle ✓**

- C. Use a ruler to measure the radius
- D. Draw a square and round the corners

**Explain the relationship between the radius and the diameter of a circle.**

- A. The diameter is half the radius
- B. The diameter is equal to the radius
- C. The diameter is twice the radius ✓**
- D. The radius is equal to the diameter

**Describe how to calculate the area of a sector given the radius and the central angle.**

- A. Area =  $\pi r^2$
- B. Area =  $(\theta/360^\circ) \times \pi r^2$  ✓**
- C. Area =  $2\pi r$
- D. Area =  $\pi r$

**What is the term for a line that touches a circle at exactly one point?**

- A. Chord
- B. Secant
- C. Tangent ✓**
- D. Radius

**Which of the following are parts of a circle? (Select all that apply)**

- A. Radius ✓**
- B. Tangent ✓**
- C. Arc ✓**
- D. Ellipse

**Which of the following formulas can be used to calculate the circumference of a circle? (Select all that apply)**

- A.  $\pi d$  ✓**
- B.  $2\pi r$  ✓**
- C.  $\pi r^2$

D.  $\pi d/2$

**Which of the following is a segment of a circle bounded by a chord and the arc it subtends?**

- A. Sector
- B. Segment ✓**
- C. Annulus
- D. Quadrant

**Which of the following are properties of a circle? (Select all that apply)**

- A. All radii are equal ✓**
- B. It has exactly two diameters
- C. It is a closed curve ✓**
- D. The sum of angles in a circle is 360 degrees

**Which of the following are true about the diameter of a circle? (Select all that apply)**

- A. It is twice the radius ✓**
- B. It is the longest chord ✓**
- C. It is equal to the circumference
- D. It divides the circle into two equal parts ✓**

**Which of the following is a line segment that passes through the center of a circle and has its endpoints on the circle?**

- A. Radius
- B. Diameter ✓**
- C. Chord
- D. tangent

**Provide a real-world example where understanding the properties of circles is essential.**

- A. Design of wheels and gears ✓**
- B. Construction of buildings
- C. Painting a wall

D. Writing a book