ILLINOIS GEOMETRY · UNIT 2 · 25 QUESTIONS

Circles and Coordinate Geometry — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A central angle intercepts an arc of 120°. The central angle measures**

- A 60°
- B 120°
- C 240°
- D 30°

Understand It with Pulse | Flag a mistake

2 **An inscribed angle intercepts an arc of 80°. The inscribed angle measures**

- A 20°
- B 80°
- C 40°
- D 160°

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3 **An angle inscribed in a semicircle measures**

- A 45°
- B 180°
- C 90°
- D 60°

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4 **In a quadrilateral inscribed in a circle, one angle measures 75°. The opposite angle measures**

A 75°

B 105°

C 180°

D 90°

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5 **A radius drawn to a point of tangency makes an angle with the tangent of**

A 45°

B 180°

C 60°

D 90°

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6 **Two tangent segments are drawn to a circle from the same outside point. One tangent segment has length 7. The other tangent segment has length**

- A 7
- B 14
- C 3.5
- D 49

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7 **Two chords intersect inside a circle. The segments of one chord are 3 and 8, and one segment of the other chord is 4. The other segment is**

- A 12
- B 6
- C 24
- D 2

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8 **A tangent segment and a secant meet outside a circle. The secant has an outside segment of 4 and a whole length of 9. The tangent segment has length**

- **A** 3
- **B** 9
- **C** 6
- **D** 12

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9 **Two secants meet outside a circle. One has an outside segment of 4 and a whole length of 18. The other has an outside segment of 6. The whole length of the second secant is**

- **A** 18
- **B** 6
- **C** 9
- **D** 12

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10 **A circle has radius 5. Its circumference, to one decimal place, is about**

- A 15.7
- B 31.4
- C 78.5
- D 10

Understand It with Pulse | Flag a mistake

11 **A circle has radius 4. Its area, to one decimal place, is about**

- A 25.1
- B 12.6
- C 50.3
- D 100.5

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12 **A circle has radius 5. An arc with central angle 72° has length, to one decimal place, about**

- A 31.4
- B 3.1
- C 12.6
- D 6.3

Understand It with Pulse | Flag a mistake

13 **A circle has radius 6. A sector with central angle 90° has area, to one decimal place, about**

- A 28.3
- B 113.1
- C 9.4
- D 18.8

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14 The equation of the circle with center (2, -3) and radius 5 is

- A $(x + 2)^2 + (y - 3)^2 = 25$
- B $(x - 2)^2 + (y + 3)^2 = 25$
- C $(x - 2)^2 + (y - 3)^2 = 5$
- D $(x + 2)^2 + (y + 3)^2 = 25$

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15 The circle $(x + 1)^2 + (y - 4)^2 = 36$ has radius

- A 3
- B 36
- C 6
- D 12

Understand It with Pulse | Flag a mistake

16 **The distance between (0, 0) and (3, 4) is**

A 7

B 25

C 5

D 1

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17 **The midpoint of the segment joining (2, 6) and (8, 2) is**

A (5, 4)

B (3, 2)

C (10, 8)

D (5, 2)

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18 **The slope of the line through (1, 2) and (5, 6) is**

- A 2
- B 0.5
- C 1
- D 4

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19 **A line parallel to y = 2x + 3 has slope**

- A -2
- B -0.5
- C 0.5
- D 2

Understand It with Pulse | Flag a mistake

20 **A line perpendicular to a line of slope 3 has slope**

- **A** $-\frac{1}{3}$
- **B** 3
- **C** $\frac{1}{3}$
- **D** -3

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21 **The center of a circle with diameter endpoints (2, 3) and (10, 7) is**

- **A** (4, 2)
- **B** (6, 5)
- **C** (12, 10)
- **D** (5, 6)

Understand It with Pulse | Flag a mistake

22 **An angle formed by a tangent and a chord intercepts an arc of 100°. The angle measures**

- A 100°
- B 25°
- C 50°
- D 200°

Understand It with Pulse | Flag a mistake

23 **A circle has radius 9. An arc with central angle 40° has length, to one decimal place, about ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A circle has radius 10. A sector with central angle 36° has area, to one decimal place, about ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **The distance between (-2, 5) and (4, -3) is ____**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. C
3. C
4. B
5. D
6. A
7. B
8. C
9. D
10. B
11. C
12. D
13. A
14. B
15. C
16. C
17. A
18. C
19. D
20. A
21. B
22. C
23. 6.3
24. 31.4
25. 10

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