ARKANSAS 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 **The distance between (0, 0) and (6, 8) is**

- A 14
- B 48
- C 12
- D 10

Understand It with Pulse | Flag a mistake

2 The midpoint of the segment joining (2, 4) and (10, 6) is

- A (8, 2)
- B (6, 10)
- C (6, 5)
- D (12, 10)

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3 The slope of the line through (1, 2) and (5, 14) is

- A 4
- B 3
- C $\frac{1}{3}$
- D 12

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4 **A line has slope 4. A line parallel to it has slope**

- **A** -4
- **B** $\frac{1}{4}$
- **C** 4
- **D** $-\frac{1}{4}$

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5 **A line has slope 3. A line perpendicular to it has slope**

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

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6 **The equation of the line through (0, 5) with slope 2 is**

A y = 2x + 5

B y = 5x + 2

C y = 2x - 5

D y = -2x + 5

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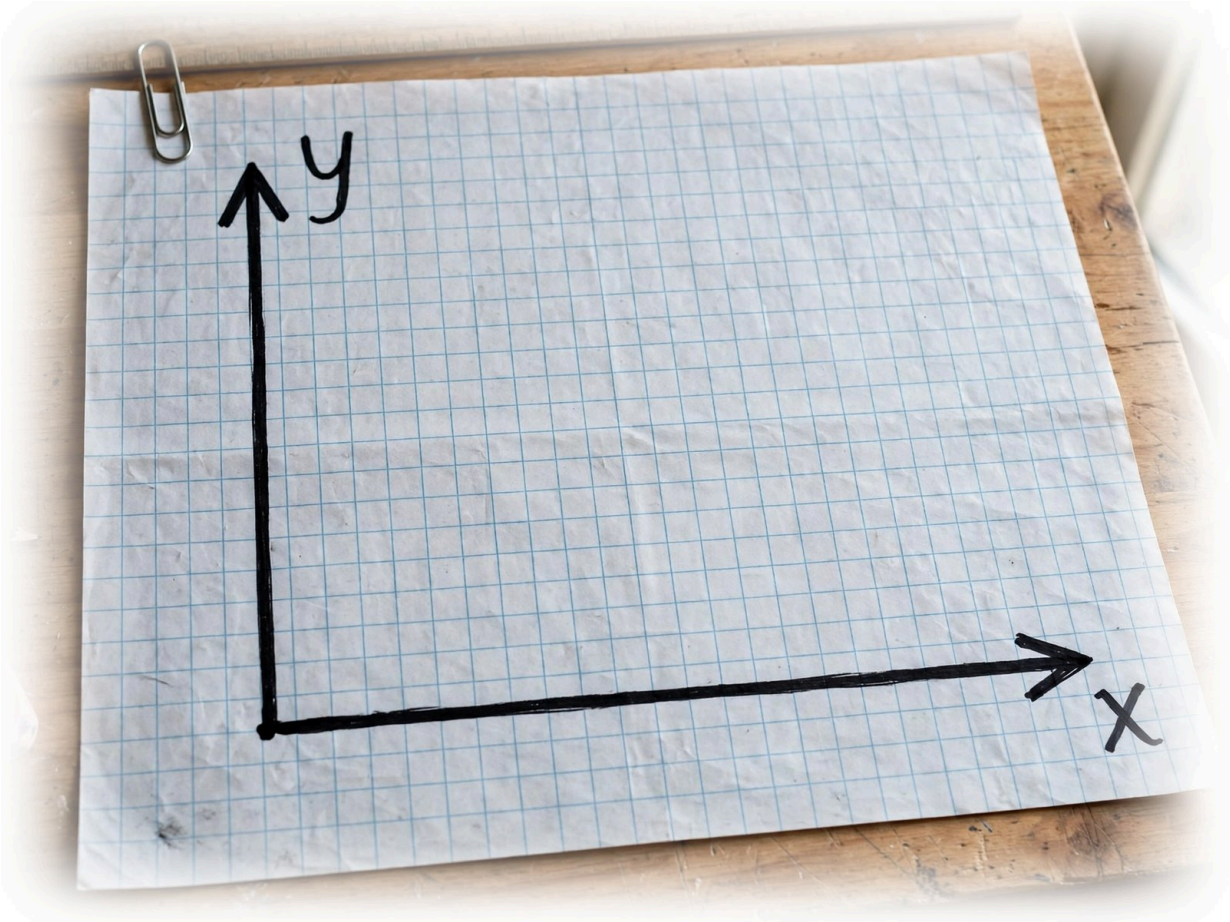
7 **The circle with center (3, -2) and radius 5 has equation**



A $(x - 3)^2 + (y + 2)^2 = 25$

B $(x + 3)^2 + (y - 2)^2 = 25$

C $(x - 3)^2 + (y + 2)^2 = 5$

D $(x - 3)^2 + (y - 2)^2 = 25$

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

- A (1, -4)
- B (-1, 4)
- C (1, 4)
- D (-1, -4)

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9 The circle $(x + 2)^2 + (y - 3)^2 = 49$ has radius

- A 49
- B 14
- C 7
- D 24.5

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10 **A circle has diameter 18. Its circumference, in terms of π, is**



A 9π

B 36π

C 81π

D 18π

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11 **A circle has radius 6. Its area, in terms of π, is**



A 12π

B 6π

C 36π

D 72π

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12 **A central angle of 90° in a circle of radius 8 cuts off an arc of length, in terms of π**

- A 2π
- B 4π
- C 8π
- D 16π

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13 **A sector with central angle 60° in a circle of radius 12**

- A 24π
- B 12π
- C 48π
- D 6π

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14 **An inscribed angle intercepts an arc of 100°. The angle measures**

A 100°

B 200°

C 25°

D 50°

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

A 45°

B 180°

C 90°

D 60°

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16 **Two chords intersect inside a circle One chord is cut into segments 3 and 12. The other chord is cut into segments 4 and x. The value of x is**

- A 6
- B 16
- C 36
- D 9

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17 **Two chords intersect inside a circle One chord is cut into segments 6 and 8. The other chord is cut into segments 4 and x. The value of x is**

- A 12
- B 10
- C 14
- D 24

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18 **A tangent to a circle is perpendicular to the radius at the point of tangency. A radius of length 5 and a tangent segment of length 12**

- A 17
- B 13
- C 7
- D 60

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19 **Two tangent segments drawn from the same exterior point to a circle are**

- A Perpendicular
- B Parallel
- C Unequal
- D Congruent

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20 **The point (5, 12) lies on a circle centered at the origin The radius of the circle is**

- A 17
- B 7
- C 13
- D 60

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21 **A regular hexagon is inscribed in a circle of radius 10. Each side of the hexagon has length**

- A 5
- B 20
- C $10\sqrt{3}$
- D 10

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22 **The measure of an arc formed by two points on a circle that are the endpoints of a diameter is**

A 90°

B 180°

C 360°

D 45°

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23 **A circle has center (0, 0) and passes through (9, 0). Its equation is**

A $x^2 + y^2 = 9$

B $x^2 + y^2 = 18$

C $x^2 + y^2 = 81$

D $(x - 9)^2 + y^2 = 81$

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24 **The distance between (-3, 7) and (5, 1) is**



A 14

B 8

C 100

D 10

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25 **A sector has area 20π in a circle of radius 10. Its central angle, in degrees, is ____**

ANSWER

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ANSWER KEY

1. D
2. C
3. B
4. C
5. B
6. A
7. A
8. A
9. C
10. D
11. C
12. B
13. A
14. D
15. C
16. D
17. A
18. B
19. D
20. C
21. D
22. B
23. C
24. D
25. 72

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