Circles and Coordinate Geometry, 25-question test — 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**

Question 1

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

A) 60°

B) 120°

C) 240°

D) 30°

- **A** 60°
- **B** 120°
- **C** 240°
- **D** 30°

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

Question 2

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

A) 20°

B) 80°

C) 40°

D) 160°

A 20°

B 80°

C 40°

D 160°

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3 An angle inscribed in a semicircle measures

Question 3

An angle inscribed in a semicircle measures

A) 45°

B) 180°

C) 90°

D) 60°

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

Question 4

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

A) 75°

B) 105°

C) 180°

D) 90°

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

Question 5

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

A) 45˚

B) 180˚

C) 60˚

D) 90˚

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

Question 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

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

Question 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

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

Question 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

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

Question 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

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

Question 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

A 15.7

B 31.4

C 78.5

D 10

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

Question 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

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

Question 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

A 31.4

B 3.1

C 12.6

D 6.3

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13

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

Question 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

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

Question 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) $(x + 2)^2 + (y + 3)^2 = 25$

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

Question 15

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

A) 3

B) 36

C) 6

D) 12

A 3

B 36

C 6

D 12

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16

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

Question 16

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

A) 7

B) 25

C) 5

D) 1

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

Question 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)

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

Question 18

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

A) 2

B) 0.5

C) 1

D) 4

A 2

B 0.5

C 1

D 4

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

Question 19

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

A) −2

B) −0.5

C) 0.5

D) 2

A -2

B -0.5

C 0.5

D 2

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

Question 20

A line perpendicular to a line of slope 3 has slope

A) $-\frac{1}{3}$

B) 3

C) $\frac{1}{3}$

D) -3

A -1/3

B 3

C 1/3

D -3

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

Question 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)

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

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

Question 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°

- **A** 100°
- **B** 25°
- **C** 50°
- **D** 200°

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

Question 23

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

ANSWER _____

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

Question 24

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

ANSWER _____

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

Question 25

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

ANSWER _____

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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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