DELAWARE PRECALCULUS · UNIT 3 · 25 QUESTIONS

Analytic Geometry and Conics — 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 vertex of $y = (x - -3)^2 + -2$ is**

- A (3, -2)
- B (-3, -2)
- C (-3, 2)
- D (0, 0)

Understand It with Pulse | Flag a mistake

2 **A circle has radius 3. Its area is**

A 6π

B 3π

C 9π

D 18π

Understand It with Pulse | Flag a mistake

3 **A circle has radius 8 and a central angle of 60°. The arc length is**

A 2.67π

B 8π

C 3.67π

D 1.33π

Understand It with Pulse | Flag a mistake

4 **A circle has center (4, 2) and radius 3. Its equation is**

- **A** $x^2 + y^2 = 9$
- **B** $(x - 4)^2 + (y - 2)^2 = 9$
- **C** $(x - 4)^2 + (y - 2)^2 = 3$
- **D** $x^2 + y^2 = 3$

Understand It with Pulse | Flag a mistake

5 **A circle has radius 6. Its area is**

- **A** 12π
- **B** 6π
- **C** 72π
- **D** 36π

Understand It with Pulse | Flag a mistake

6 **A circle has radius 8 and a central angle of 60°. The arc length is**

- **A** 8π
- **B** 2.67π
- **C** 3.67π
- **D** 1.33π

Understand It with Pulse | Flag a mistake

7 **A circle has center (4, -4) and radius 2. Its equation is**

- **A** $x^2 + y^2 = 4$
- **B** $(x - 4)^2 + (y + 4)^2 = 2$
- **C** $(x - 4)^2 + (y + 4)^2 = 4$
- **D** $x^2 + y^2 = 2$

Understand It with Pulse | Flag a mistake

8 **A circle has radius 3. Its area is**

A 9π

B 6π

C 3π

D 18π

Understand It with Pulse | Flag a mistake

9 **A circle has radius 5. Its circumference is**

A 5π

B 10π

C 25π

D 7π

Understand It with Pulse | Flag a mistake

10 **A circle has radius 8 and a central angle of 90°. The arc length is**

- **A** 8π
- **B** 5π
- **C** 4π
- **D** 2π

Understand It with Pulse | Flag a mistake

11 **A circle has center (2, 0) and radius 2. Its equation is**

- **A** $x^2 + y^2 = 4$
- **B** $(x - 2)^2 + y^2 = 2$
- **C** $x^2 + y^2 = 2$
- **D** $(x - 2)^2 + y^2 = 4$

Understand It with Pulse | Flag a mistake

12 **The vertex of $y = (x - -2)^2 + -2$ is**

- A (-2, -2)
- B (2, -2)
- C (-2, 2)
- D (0, 0)

Understand It with Pulse | Flag a mistake

13 **A circle has radius 4. Its area is**

- A 8π
- B 16π
- C 4π
- D 32π

Understand It with Pulse | Flag a mistake

14 **A circle has radius 3. Its circumference is**

- A 3π
- B 9π
- C 6π
- D 5π

Understand It with Pulse | Flag a mistake

15 **A circle has radius 6 and a central angle of 90°. The arc length is**

- A 6π
- B 4π
- C 1.5π
- D 3π

Understand It with Pulse | Flag a mistake

16 **A circle has center (0, -3) and radius 3. Its equation is**

A $x^2 + (y + 3)^2 = 9$

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

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

D $x^2 + y^2 = 3$

Understand It with Pulse | Flag a mistake

17 **The vertex of $y = (x - 3)^2 + 2$ is**

A (-3, 2)

B (3, 2)

C (3, -2)

D (0, 0)

Understand It with Pulse | Flag a mistake

18 **A circle has radius 6. Its area is**

A 12π

B 6π

C 36π

D 72π

Understand It with Pulse | Flag a mistake

19 **A circle has radius 7. Its circumference is**

A 7π

B 49π

C 9π

D 14π

Understand It with Pulse | Flag a mistake

20 **A circle has center (-1, -4) and radius 4. Its equation is**

- **A** $x^2 + y^2 = 16$
- **B** $(x + 1)^2 + (y + 4)^2 = 16$
- **C** $(x + 1)^2 + (y + 4)^2 = 4$
- **D** $x^2 + y^2 = 4$

Understand It with Pulse | Flag a mistake

21 **The vertex of $y = (x - 3)^2 + -1$ is**

- **A** (-3, -1)
- **B** (3, 1)
- **C** (3, -1)
- **D** (0, 0)

Understand It with Pulse | Flag a mistake

22 **A circle has radius 3. Its area is**

A 6π

B 3π

C 18π

D 9π

Understand It with Pulse | Flag a mistake

23 **A circle has radius 7. Its circumference is**

A 14π

B 7π

C 49π

D 9π

Understand It with Pulse | Flag a mistake

24 **A circle has radius 8 and a central angle of 90°. The arc length is**

- **A** 8π
- **B** 4π
- **C** 5π
- **D** 2π

Understand It with Pulse | Flag a mistake

25 **A circle has center (3, -2) and radius 4. Its equation is**

- **A** $x^2 + y^2 = 16$
- **B** $(x - 3)^2 + (y + 2)^2 = 4$
- **C** $(x - 3)^2 + (y + 2)^2 = 16$
- **D** $x^2 + y^2 = 4$

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.