SOUTH DAKOTA PRECALCULUS · UNIT 3

Analytic Geometry and Conics — Practice Test

South Dakota Precalculus • 10 questions

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 For $x^2/16 + y^2/25 = 1$, the major vertices are

- A (± 4, 0)
- B (0, ± 4)
- C (0, ± 5)
- D (± 5, 0)

Understand It with Pulse | Flag a mistake

2 For $x^2/16 + y^2/25 = 1$, the foci are

- **A** $(\pm 3, 0)$
- **B** $(0, \pm 3)$
- **C** $(0, \pm 4)$
- **D** $(\pm 4, 0)$

Understand It with Pulse | Flag a mistake

3 The asymptotes of $y^2/9 - x^2/4 = 1$ are

- **A** $y = \pm \frac{2}{3x}$
- **B** $y = \pm \frac{3}{2x}$
- **C** $y = \pm \frac{9}{4x}$
- **D** $y = \pm \frac{4}{9x}$

Understand It with Pulse | Flag a mistake

4 The distance between (0, 0) and (6, 8) is

- A 10
- B 14
- C 48
- D 100

Understand It with Pulse | Flag a mistake

5 The midpoint of (-2, 5) and (4, 1) is

- A (1, 3)
- B (3, 1)
- C (1, 2)
- D (2, 3)

Understand It with Pulse | Flag a mistake

6 **The equation $x^2/9 - y^2/4 = 1$ represents a**

A circle

B parabola

C ellipse

D hyperbola

Understand It with Pulse | Flag a mistake

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

A (3, -1)

B (-1, 3)

C (3, 1)

D (-3, -1)

Understand It with Pulse | Flag a mistake

8 **For $x^2/25 + y^2/16 = 1$, the major axis length is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **The value of p for $x^2 = 12y$ is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **The distance between (3, 4) and (3, 9) is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	C	**5.**	A	**9.**	3
2.	B	**6.**	D	**10.**	5
3.	B	**7.**	A		
4.	A	**8.**	10		

© 2026 Brett Robbins. All Rights Reserved.