ILLINOIS PRECALCULUS · UNIT 3 · 10 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 For $\frac{x^2}{16} + \frac{y^2}{25} = 1$, the major vertices are

- **A** $(\pm 4, 0)$
- **B** $(0, \pm 4)$
- **C** $(0, \pm 5)$
- **D** $(\pm 5, 0)$

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2 For $\frac{x^2}{16} + \frac{y^2}{25} = 1$, the foci are

- **A** (± 3, 0)
- **B** (0, ± 3)
- **C** (0, ± 4)
- **D** (± 4, 0)

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3 The asymptotes of $\frac{y^2}{9} - \frac{x^2}{4} = 1$ are

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

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

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

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

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

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6 **The equation $\frac{x^2}{9} - \frac{y^2}{4} = 1$ represents a**

A circle

B parabola

C ellipse

D hyperbola

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

A (3, -1)

B (-1, 3)

C (3, 1)

D (-3, -1)

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8 For $\frac{x^2}{25} + \frac{y^2}{16} = 1$, the major axis length is ____.

ANSWER _____

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

ANSWER _____

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

ANSWER _____

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ANSWER KEY

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

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