COLORADO PRECALCULUS · COLORADO

Colorado Precalculus

Practice Test

Unit 3: Analytic Geometry and Conics

10 Questions

Original practice test based on the Colorado curriculum. Work through each question, then check your answers at the end.

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.

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Question 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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Question 2

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

A) $(\pm 3, 0)$

B) $(0, \pm 3)$

C) $(0, \pm 4)$

D) $(\pm 4, 0)$

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Question 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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Question 4

The distance between $(0,\ 0)$ and $(6,\ 8)$ is

A) 10

B) 14

C) 48

D) 100

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Question 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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Question 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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Question 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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Question 8

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

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Question 9

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

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Question 10

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

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ANSWER KEY

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

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