# Analytic Geometry and Conics, 10-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** **For $x^2/16 + y^2/25 = 1$, the major vertices are**

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) $(\pm 5, 0)$

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

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

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) $(\pm 4, 0)$

A (± 3, 0)

B (0, ± 3)

C (0, ± 4)

D (± 4, 0)

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

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) $y = \pm \frac{4}{9}x$

A y = ± 2/3x

B y = ± 3/2x

C y = ± 9/4x

D y = ± 4/9x

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

Question 4

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

A) 10

B) 14

C) 48

D) 100

A 10

B 14

C 48

D 100

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

Question 5

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

A) $(1,\ 3)$

B) $(3,\ 1)$

C) $(1,\ 2)$

D) $(2,\ 3)$

A (1, 3)

B (3, 1)

C (1, 2)

D (2, 3)

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

Question 6

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

A) circle

B) parabola

C) ellipse

D) hyperbola

A circle

B parabola

C ellipse

D hyperbola

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

Question 7

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

A) $(3, -1)$

B) $(-1, 3)$

C) $(3, 1)$

D) $(-3, -1)$

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

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

Question 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 ____.**

Question 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 ____.**

Question 10

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

ANSWER

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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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