ALASKA 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 $\frac{x^2}{36} + \frac{y^2}{20} = 1$, the foci are

- **A** (± 6, 0)
- **B** (± 4, 0)
- **C** (0, ± 4)
- **D** (± 5, 0)

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2 For $\frac{x^2}{36} + \frac{y^2}{20} = 1$, the eccentricity is

- **A** $\frac{4}{6}$
- **B** $\frac{5}{6}$
- **C** $\frac{2}{3}$
- **D** $\frac{20}{36}$

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3 The asymptotes of $\frac{y^2}{16} - \frac{x^2}{4} = 1$ are

- **A** $y = \pm 2x$
- **B** $y = \pm \frac{1}{2}x$
- **C** $y = \pm 4x$
- **D** $y = \pm \frac{1}{4}x$

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4 The conjugate axis length of $\frac{x^2}{16} - \frac{y^2}{9} = 1$ is

A 8

B 4

C 3

D 6

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5 The distance between (-1, 2) and (2, 6) is

A 3

B 4

C 7

D 5

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6 The midpoint of (0, 4) and (6, 10) is

- A (3, 7)
- B (6, 6)
- C (3, 14)
- D (6, 14)

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7 The length of the latus rectum of $y^2 = 16x$ equals

ANSWER _____

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8 For $\frac{x^2}{25} + \frac{y^2}{9} = 1$, the major axis length equals

ANSWER _____

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9 **The equation $x^2 + y^2 - 6x + 4y - 12 = 0$ represents a**

- A parabola
- B ellipse
- C hyperbola
- D circle

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

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

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ANSWER KEY

1.	B	**5.**	D	**9.**	D
2.	C	**6.**	A	**10.**	C
3.	A	**7.**	16		
4.	D	**8.**	10		

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