

12.2: (Ellipses)

The eccentricity of the ellipse $8(x - 3)^2 + (y + 1)^2 = 2$, is

- A) $\frac{\sqrt{14}}{4}$
- B) $\frac{\sqrt{7}}{2}$
- C) $\frac{\sqrt{7}}{4}$
- D) $\frac{\sqrt{14}}{2}$
- E) $\frac{\sqrt{18}}{4}$

The equation of an Ellipse.

The equation of the ellipse with foci $(-2, 7)$ and $(-2, 1)$ and minor axis of length 8 is

- A) $\frac{(x + 2)^2}{16} + \frac{(y - 4)^2}{25} = 1$
- B) $\frac{(x - 2)^2}{16} + \frac{(y + 4)^2}{25} = 1$
- C) $\frac{(x - 2)^2}{25} + \frac{(y + 4)^2}{16} = 1$
- D) $\frac{(x + 2)^2}{25} + \frac{(y - 4)^2}{16} = 1$
- E) $\frac{(x + 2)^2}{25} + \frac{(y + 4)^2}{16} = 1$

The equation of an Ellipse.

If $[a, b]$ is the **domain** and $[c, d]$ is the **range** of the equation

$$4x = \sqrt{1 - \frac{y^2}{9}}, \text{ then } a + b + c + d =$$

- A) $\frac{1}{4}$
- B) $-\frac{1}{4}$
- C) 0
- D) 3
- E) -3

The equation of an Ellipse.

The equation of the ellipse in the standard form with vertices $(-2, 4)$ and $(-2, -2)$, and passing through $(0, 1)$ is

- (a) $\frac{(x+2)^2}{4} + \frac{(y-1)^2}{9} = 1$
- (b) $\frac{(x+2)^2}{4} + \frac{(y-1)^2}{25} = 1$
- (c) $\frac{(x-2)^2}{4} + \frac{(y-1)^2}{25} = 1$
- (d) $\frac{(x+2)^2}{3} + \frac{(y-2)^2}{12} = 1$
- (e) $\frac{(x-2)^2}{4} + \frac{(y+1)^2}{9} = 1$

The equation of an Ellipse.

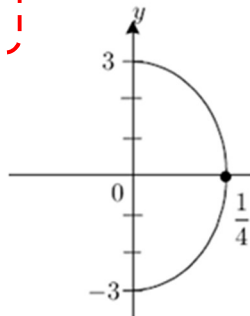
If (h, k) is the center of the ellipse $25x^2 + 16y^2 - 150x + 64y - 111 = 0$ and e is its eccentricity, then $h + k + e$ is equal to:

- A) $\frac{8}{5}$
- B) $-\frac{2}{5}$
- C) $-\frac{1}{5}$
- D) $\frac{3}{5}$
- E) $\frac{7}{5}$

The equation of an Ellipse.

The equation, whose graph is shown on the right, is equal to

- (a) $4x = \sqrt{1 - \frac{y^2}{9}}$
- (b) $2x = \sqrt{1 - \frac{y^2}{9}}$
- (c) $\frac{x}{4} = \sqrt{1 - \frac{y^2}{9}}$
- (d) $\frac{x}{4} = \sqrt{1 - 9y^2}$
- (e) $4x = \sqrt{1 - 9y^2}$



The equation of an Ellipse.

The length of the major axis of an ellipse with foci at $(-1, 2)$ and $(3, 2)$ that passes through the point $(3, 5)$ is

- A) 8
- B) 12
- C) 4
- D) 10
- E) 6

The equation of an Ellipse.

An ellipse has its center at $(3, -2)$. If its major axis is horizontal of length 10 and one of the end points of the minor axis is $(3, 1)$, then one of its foci is

- A) $(7, -2)$
- B) $(-1, 2)$
- C) $(3, 2)$
- D) $(-2, 3)$
- E) $(3, -6)$

The equation of an Ellipse.

The vertices of the ellipse $2x^2 + 3y^2 - 28x + 30y + 167 = 0$ are

- A) $(7 + \sqrt{3}, -5)$ and $(7 - \sqrt{3}, -5)$
- B) $(-7 + \sqrt{3}, -5)$ and $(-7 - \sqrt{3}, -5)$
- C) $(7, -5 + \sqrt{2})$ and $(7, -5 - \sqrt{2})$
- D) $(-7, -5 + \sqrt{2})$ and $(-7, -5 - \sqrt{2})$
- E) $(7 + \sqrt{3}, 5)$ and $(7 - \sqrt{3}, 5)$

The equation of an Ellipse.