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 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) $\frac{(x+2)^2}{25}+\frac{(y+4)^2}{16}=1$

If $[a, b]$ is the domain and $[c, d]$ is the range of the equation $4x = \sqrt{1 - \frac{y^2}{9}}$,

then $a + b + c + d =$

A) $\frac{1}{4}$

B) $-\frac{1}{4}$

C) 0

D) 3

E) -3

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) $\frac{(x-2)^2}{4} + \frac{(y+1)^2}{9} = 1$

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

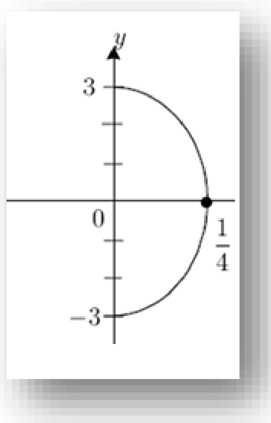
(a) $4x = \sqrt{1 - \frac{y^2}{9}}$

(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 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

An ellipse has its center at $(3,-2)$. If its major axis is borizontal 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 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 $(7 - \sqrt{3}, 5)$