

1



Find the vertex, focus, directrix of the parabola.

$$(y-3)^2 = 4(x-7)$$

- a. $(7, 3); (11, 3); x=3$ (go to #2)
- b. $(7, 3); (8, 3); x=6$ (go to #6)
- c. $(3, 7); (3, 8); y=6$ (go to #3)
- d. $(3, 7); (3, 11); y=3$ (go to #5)

2



Find an equation in standard form for the ellipse that satisfies the given conditions.

Vertices at $(\pm 4, 0)$ and foci at $(\pm 2, 0)$

- a. $\frac{x^2}{16} + \frac{y^2}{4} = 1$ (go to #4)
- b. $\frac{x^2}{16} + \frac{y^2}{12} = 1$ (go to #3)
- c. $\frac{x^2}{144} + \frac{y^2}{4} = 1$ (go to #6)
- d. $\frac{x^2}{4} + \frac{y^2}{12} = 1$ (go to #1)

3



Find the vertices & foci of the hyperbola.

$$\frac{(x+3)^2}{16} - \frac{(y-1)^2}{9} = 1$$

- a. (1, 1) & (-7, 1); (-8, 1) & (2, 1) (go to #5)
- b. (1, 1) & (1, -7); (1, -8) & (1, 2) (go to #2)
- c. (1, 0) & (1, -6); (1, -6) & (1, 0) (go to #1)
- d. (0, 1) & (-6, 1); (-6, 1) & (0, 1) (go to #7)

4



Find the center, vertices, & foci of the ellipse with the given equation.

$$\frac{(x+5)^2}{9} + \frac{(y+2)^2}{25} = 1$$

- a. (-5, -2); (-5, -7) & (-5, 3); (-5, -6) & (-5, 2) (go to #2)
- b. (-5, -2); (-7, -2) & (3, -2); (-5, -5) & (-5, 1) (go to #7)
- c. (-5, -2); (-7, -2) & (3, -2); (-6, -5) & (2, -5) (go to #5)
- d. (-5, -2); (-5, -7) & (-5, 3); (-5, -2) & (1, -2) (go to #6)

5



Find an equation in standard form for the hyperbola that satisfies the given conditions.

Center (1, -3), focus (6, -3), & vertex (5, -3)

a. $\frac{(x-1)^2}{9} - \frac{(y+3)^2}{16} = 1$ (go to #1)

b. $\frac{(x+1)^2}{16} - \frac{(y+3)^2}{9} = 1$ (go to #2)

c. $\frac{(x-1)^2}{16} - \frac{(y+3)^2}{9} = 1$ (go to #7)

d. $\frac{(x-1)^2}{16} - \frac{(y+3)^2}{25} = 1$ (go to #3)



Find the standard form of the equation of the parabola.

Vertex at the origin, focus at $(0, 3)$

- a. $y^2 = 3x$ (go to #1)
- b. $y = \frac{1}{3}x^2$ (go to #5)
- c. $y^2 = 12x$ (go to #2)
- d. $y = \frac{1}{12}x^2$ (go to #4)



Find the slopes of the asymptotes for $\frac{(x-1)^2}{9} - \frac{(y+3)^2}{16} = 1$

- a. $\pm \frac{3}{4}$ (go to #2)
- b. $\pm \frac{4}{3}$ (go to #1)
- c. $\pm \frac{3}{4}$ (go to #5)
- d. $\pm \frac{4}{3}$ (go to #6)

