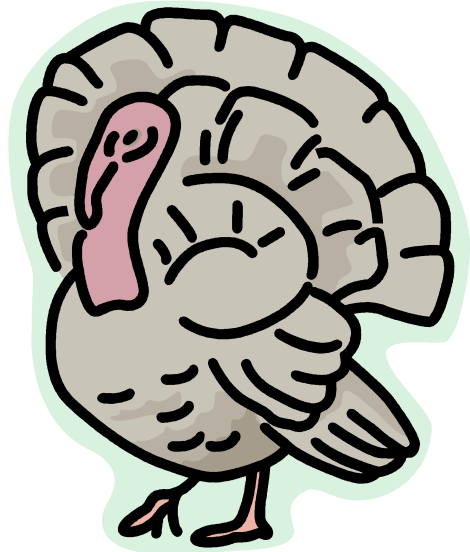


5



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

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

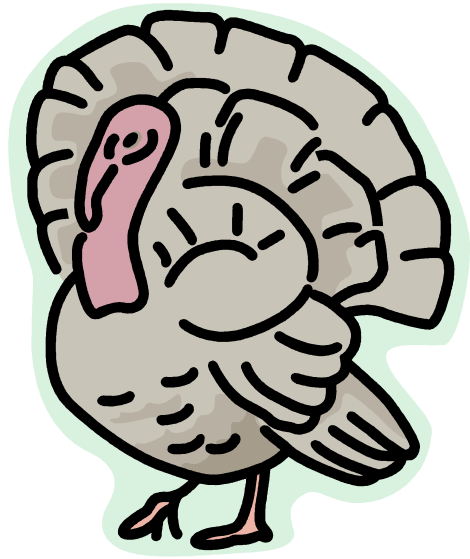
a.  $\frac{(x-1)^2}{9} - \frac{(y+3)^2}{16} = 1$  (go to #1)

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)

2



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

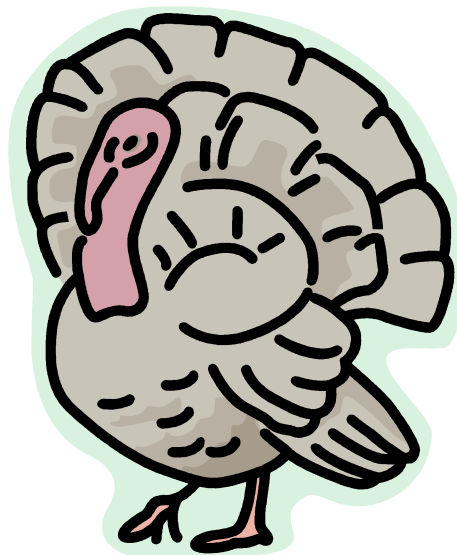
Vertices at  $(\pm 4, 0)$  and foci at  $(\pm 2, 0)$

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)

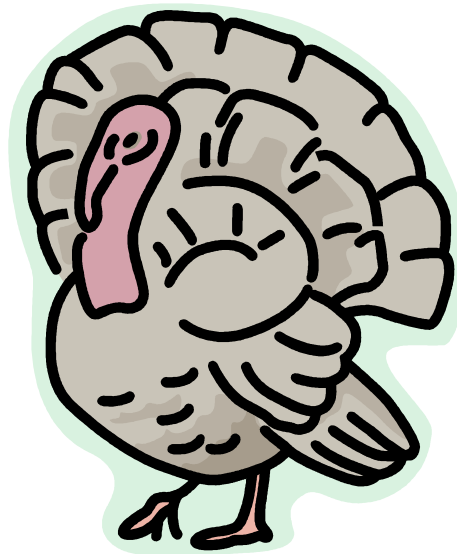
d.  $\frac{x^2}{4} + \frac{y^2}{12} = 1$  (go to #1)



**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.  $\pm \frac{2}{3}$  (go to #5)
- d.  $\pm \frac{1}{3}$  (go to #6)

3

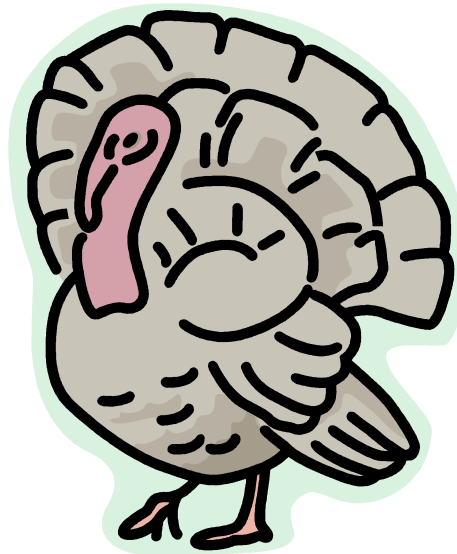


**Find the vertices & foci of the hyperbola.**

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

- 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)

6

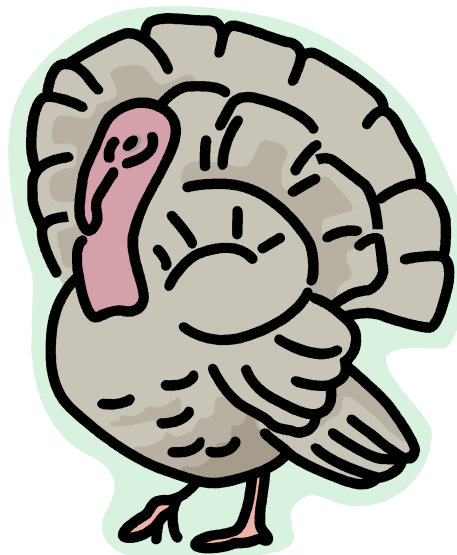


**Find the standard form of the equation of the parabola.**

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)

4

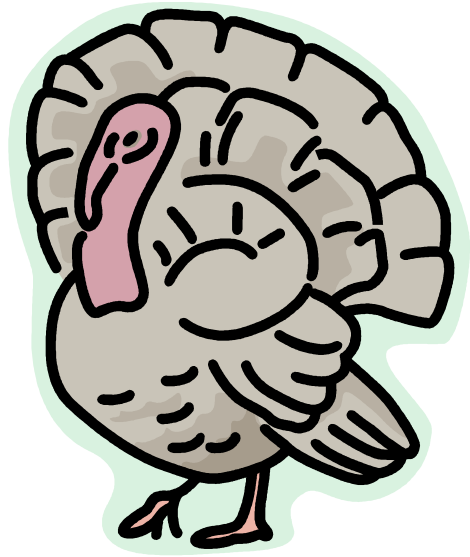


**Find the center, vertices, & foci of the ellipse with the given equation.**

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

- 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)

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)

**ORDER OF ANSWERS:**

- 1
- 6
- 4
- 2
- 3
- 5
- 7

