

1. What is an equation in standard form of an ellipse centered at the origin with vertices $(\pm 7, 0)$ and foci $(\pm 5, 0)$?

2. Write an equation of an ellipse in standard form with the center at the origin and the given vertex and co-vertex listed respectively.

$(8, 0), (0, -7)$

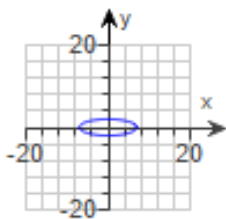
3. Find the vertices and the foci of the ellipse with the given equation. Then choose the correct graph of the ellipse. Write ordered pairs.

$$\frac{x^2}{4} + \frac{y^2}{49} = 1$$

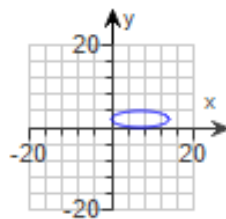
Vertices: _____

Foci: _____

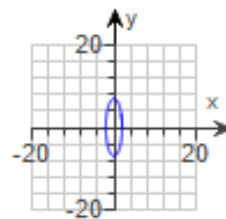
A.



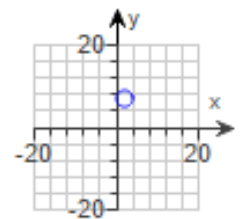
B.



C.



D.

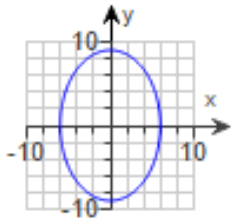


4. Find the foci for the equation of the ellipse. Write ordered pairs. Then choose the correct graph.

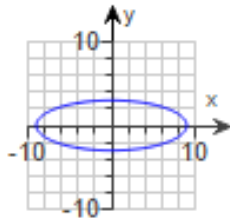
$$81x^2 + 9y^2 = 729$$

Foci: _____

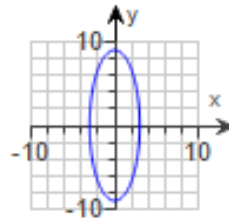
A.



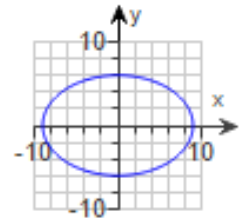
B.



C.



D.



5. Find the distance between the foci of an ellipse. The lengths of the major and minor axes are listed respectively.

50 and 48

The foci are _____ unit(s) apart.

6. Write an equation of an ellipse in standard form for the given foci and co-vertices. Write ordered pairs.

Foci $(0, \pm 4)$, co-vertices $(\pm 8, 0)$

7. Find the standard form of the equation of a hyperbola with the given values. Assume that the transverse axis is horizontal

$a = -20$, $c = 152$

8. Find the standard form of the equation of a hyperbola with the given foci and vertices. Write ordered pairs.

Foci $(\pm 7, 0)$, vertices $(\pm 3, 0)$

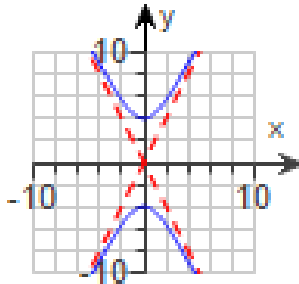
9. Find the vertices and foci of the hyperbola. Write ordered pairs. Then choose the correct graph.

$$\frac{y^2}{16} - \frac{x^2}{4} = 1$$

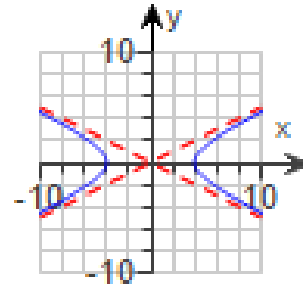
Vertices: _____

Foci: _____

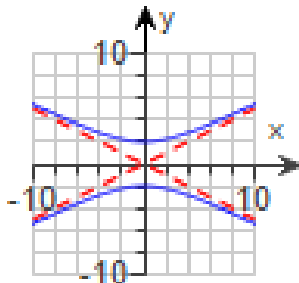
A.



B.



C.



D.

