Determining the Equation of an Ellipse

Name _____

Date _____ Period _____

Equation of an Ellipse
with center (h,k)

Foci

$$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$$

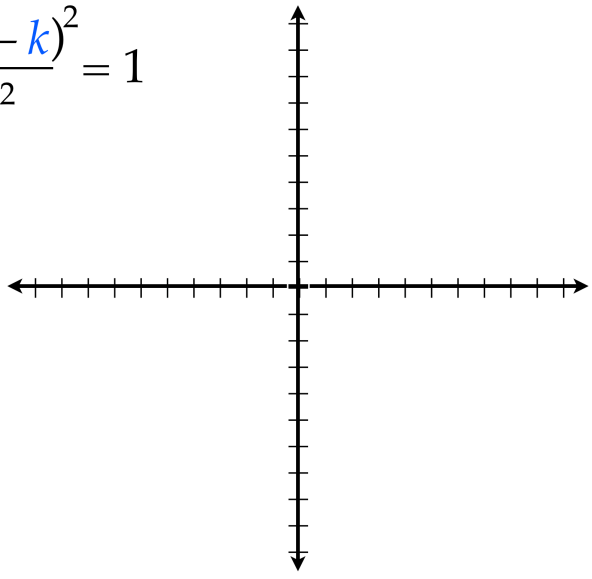
Write the equation of an ellipse with the following characteristics

$$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$$

Center: (0,0)

Vertex: (5,0)

Focus: (4,0)

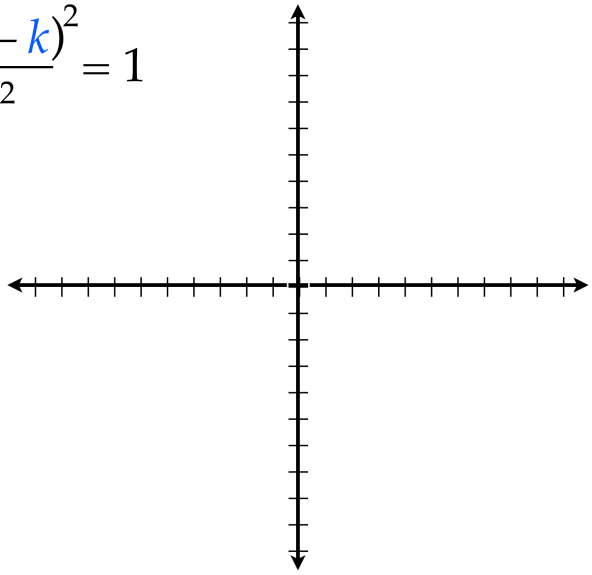


Write the equation of an ellipse with the following characteristics

$$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$$

Major Axis Length: 8

Foci: (0,±2)



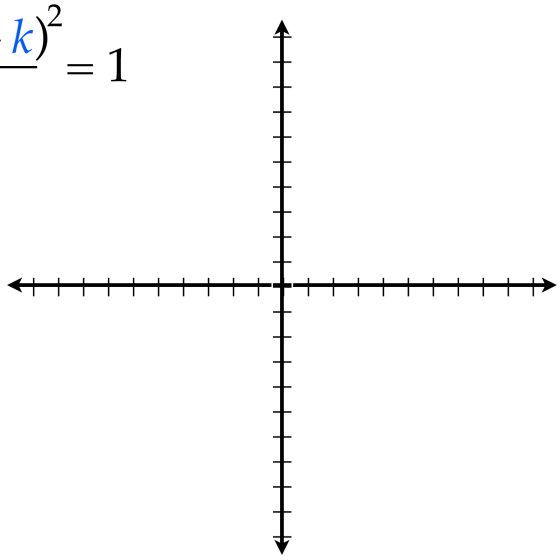
Write the equation of an ellipse with the following characteristics

$$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$$

Center: (2,-5)

Vertex: (6,-5)

Point: (2,-3)



Write the equation of an ellipse with the following characteristics

$$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$$

Vertices: (-2,0) and (-2,-10)
focus at (-2,-2)