

2.

CENTER:  $(0, 0)$ 

$$\begin{array}{c} \uparrow \quad \uparrow \\ \textcircled{h=0} \quad \textcircled{k=0} \end{array}$$

FOCUS  $(-5, 0)$ 

$$h-c = -5$$

$$0-c = -5$$

$$-c = -5$$

$$\textcircled{c=5}$$

VERTEX  $(4, 0)$ 

$$h+a = 4$$

$$0+a = 4$$

$$\textcircled{a=4}$$

LEFT

$$b^2 = c^2 - a^2$$

$$b^2 = 5^2 - 4^2$$

$$b^2 = 25 - 16$$

$$b^2 = 9$$

$$b = \sqrt{9}$$

$$b = 3$$

$$\underline{a=4 \quad b=3 \quad c=5 \quad h=0 \quad k=0}$$

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

$$\frac{(x-0)^2}{4^2} - \frac{(y-0)^2}{3^2} = 1$$

$$\textcircled{\frac{x^2}{16} - \frac{y^2}{9} = 1}$$

ASYMPTOTES

$$y-k = \pm \frac{b}{a}(x-h)$$

$$y-0 = \pm \frac{3}{4}(x-0)$$

$$y = \pm \frac{3}{4}x + 0$$

