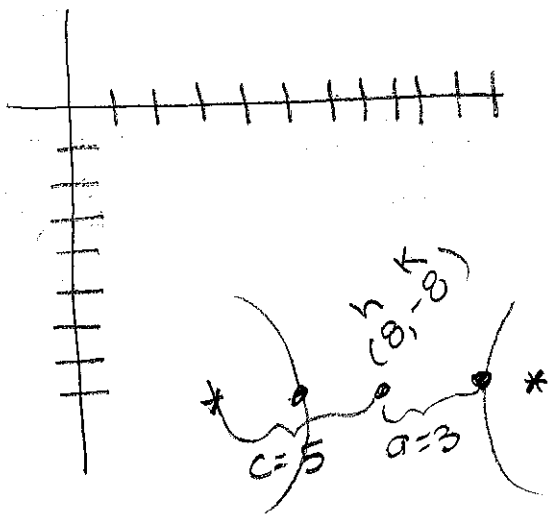


## Warm-up 9: Hyperbola

Write the standard form of the equation of the hyperbola with vertices  $(11, -8)$  &  $(5, -8)$  and the distance from the center to the focus is 5.



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

$$\frac{(x-8)^2}{9} - \frac{(y+8)^2}{16} = 1$$

$$c^2 = a^2 + b^2$$

$$25 = 9 + b^2$$

$$16 = b^2$$