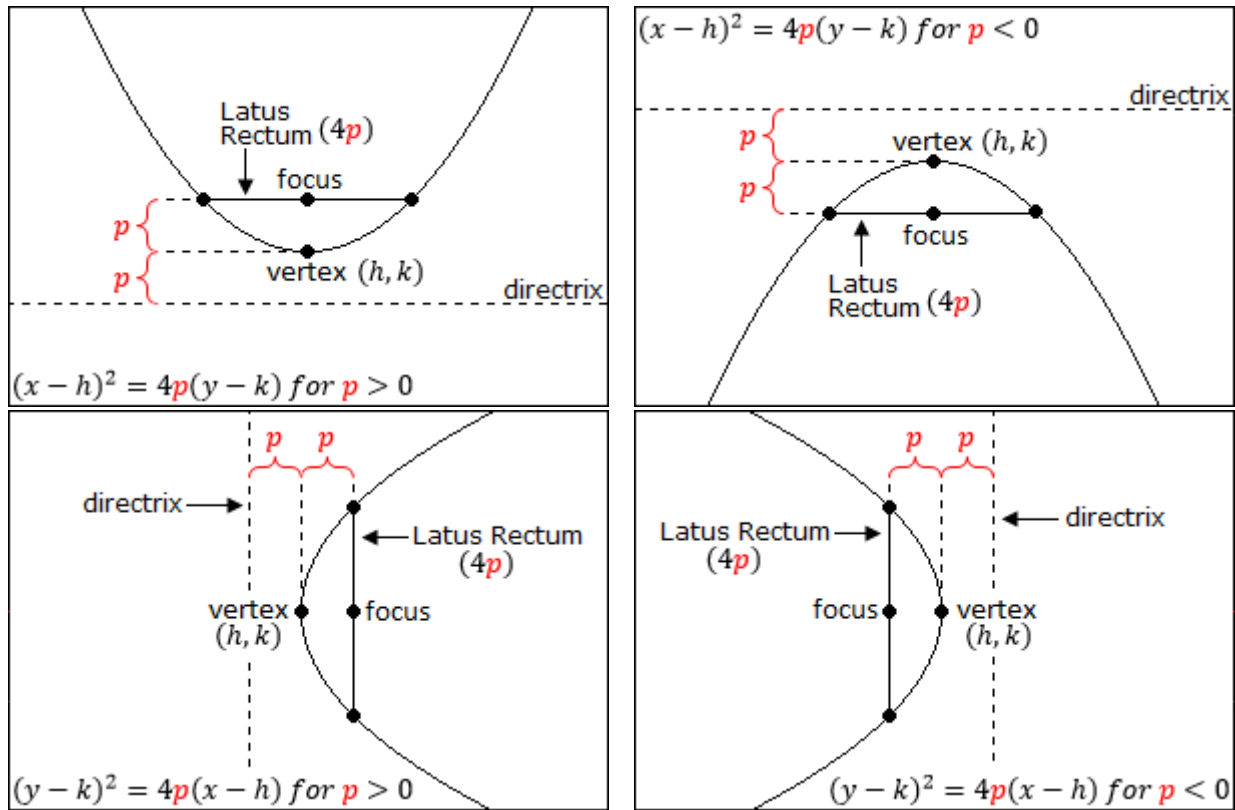


# Conic Sections

## The Parabola

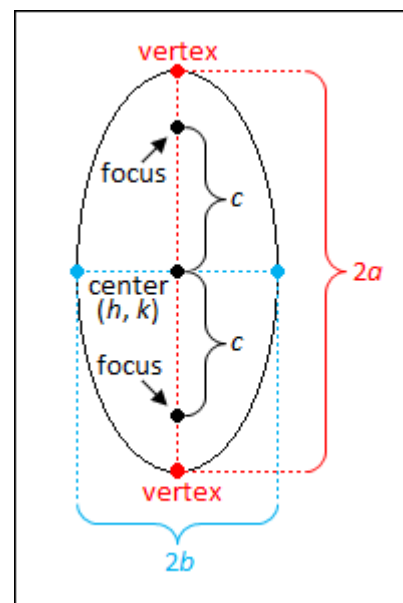
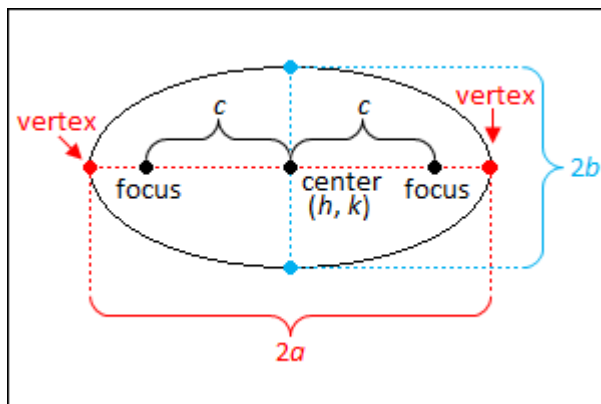


## The Ellipse

For an ellipse,  $a > b$  and  $c^2 = a^2 - b^2$   
 with eccentricity  $= \frac{c}{a}$ .

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

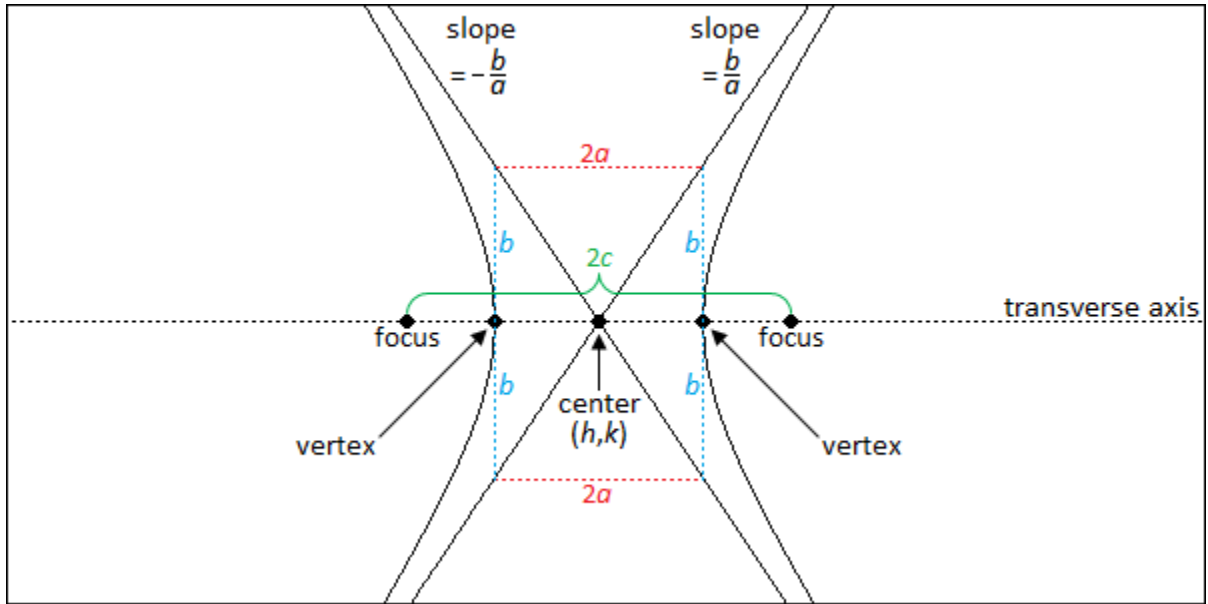
$$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$$



# Conic Sections

## The Hyperbola

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



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

