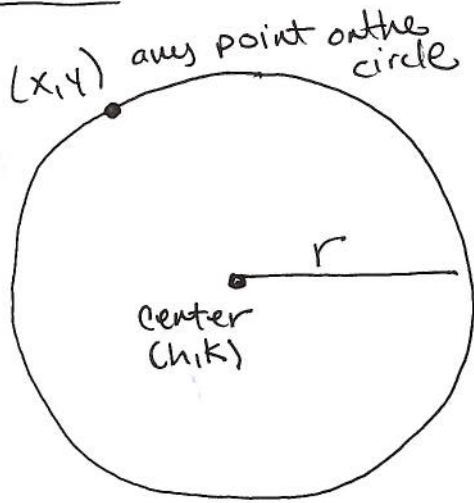
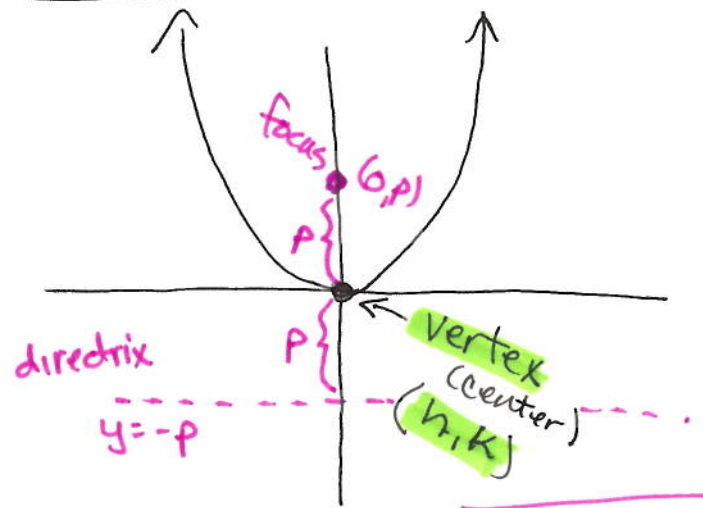


Circle



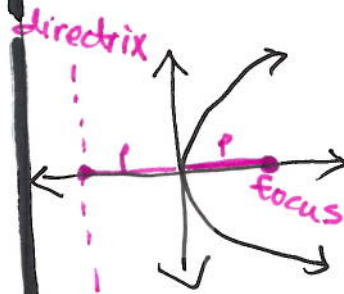
$$x^2 + y^2 = r^2$$

Parabola



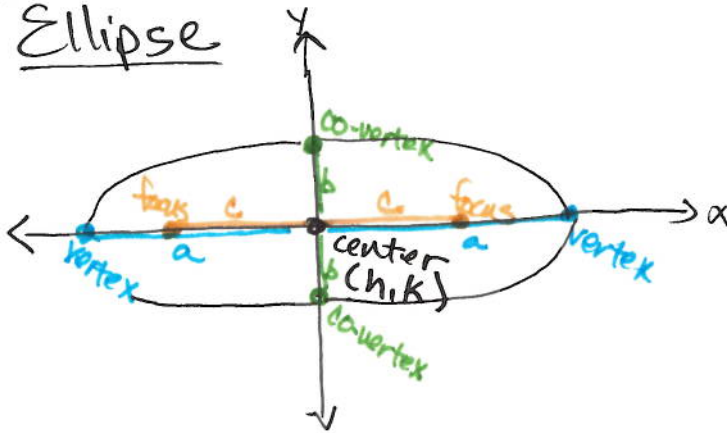
$$x^2 = 4py$$

p is distance from focus to vertex!



$$y^2 = 4px$$

Ellipse



c = distance from center to foci
 a = distance from center to vertex
 b = distance from center to co-vertex
 (center is midpt. btw vertices)
 or co-vertices

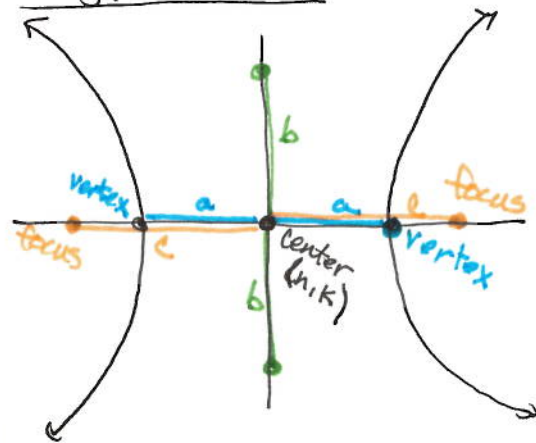
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

horizontal

$$\frac{x^2}{b^2} + \frac{y^2}{a^2} = 1$$

vertical

Hyperbola



a = distance from center to vertex
 (center is midpoint btw vertices)

c = distance from center to foci

b = just b

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$

horizontal
 (a - under x)

$$\frac{y^2}{a^2} - \frac{x^2}{b^2} = 1$$

vertical
 (a - under y)