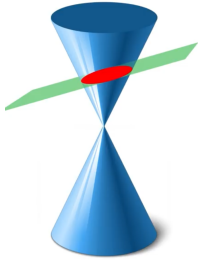


Defining Conic Sections

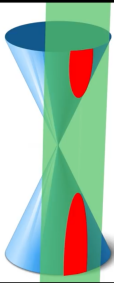


if the plane is parallel to the base we get a _____

if the plane is not parallel to the base we get an _____

Fill in the blanks from the video

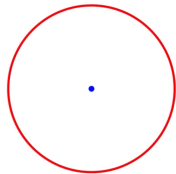
Defining Conic Sections



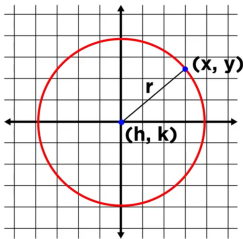
if the plane cuts from the side through the base we get a _____

if the plane cuts from one base to the other we get a _____

_____ is the **set of all points** that are some fixed distance from a **central point**



Graphing Circles



$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

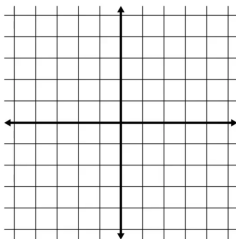
The Distance Formula

Equation of a Circle

(Standard Form)



Graphing Circles



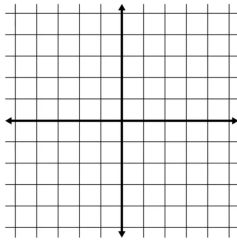
$$(x - h)^2 + (y - k)^2 = r^2$$

$$x^2 + y^2 = 9$$

Center

Radius

Graphing Circles



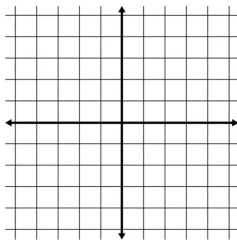
$$(x - h)^2 + (y - k)^2 = r^2$$

$$(x + 2)^2 + (y + 3)^2 = 9$$

Center

Radius

Graphing Circles



$$(x - h)^2 + (y - k)^2 = r^2$$

$$x^2 + y^2 + 4x - 6y - 23 = 0$$

Center

Radius

What is the equation for a circle that has its center at (2, -5) and a radius of 5?

Convert the following equation for a circle into standard form:

$$x^2 + y^2 + 6x - 8y = 11$$