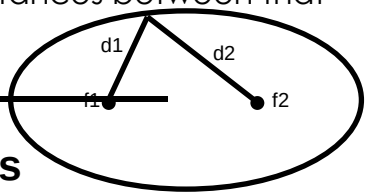
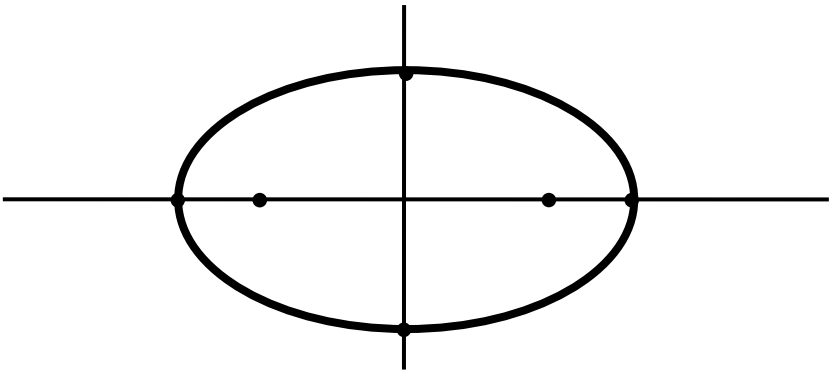
An _____ is the set of points such that the _____ of the distances between that point and two fixed points called the _____ remains constant



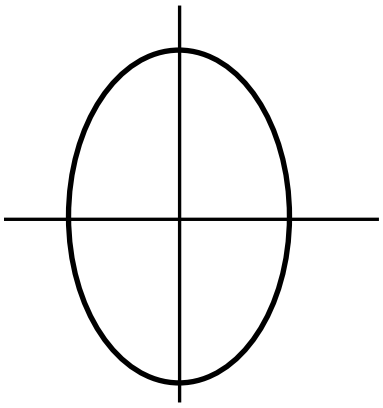
Standard Form for Elliptical Equations

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



Horizontal Major Axis

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



Vertical Major Axis

Center:
Vertices:
Co-Vertices:

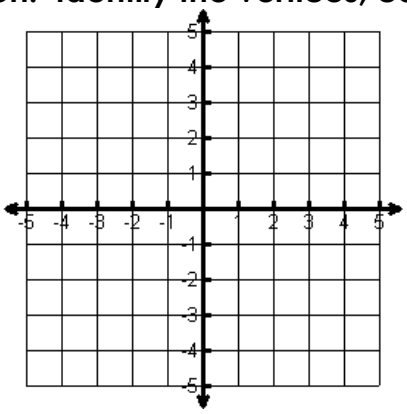
Major Axis:
Minor Axis:
Foci:

****The foci of the ellipse lie on the MAJOR AXIS at c units from the center****

FOCI EQUATION:

Graph the equation. Identify the vertices, co-vertices, and foci of the ellipse.

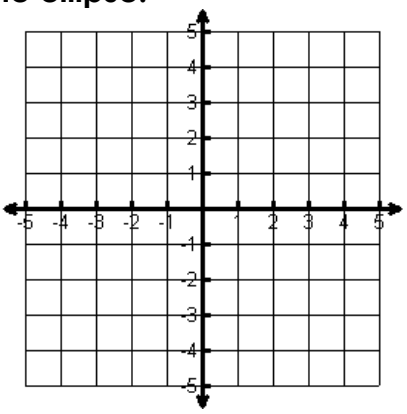
1. $\frac{x^2}{16}+\frac{y^2}{9}=1$



Center: Foci:

Vertices: Co-Vertices:

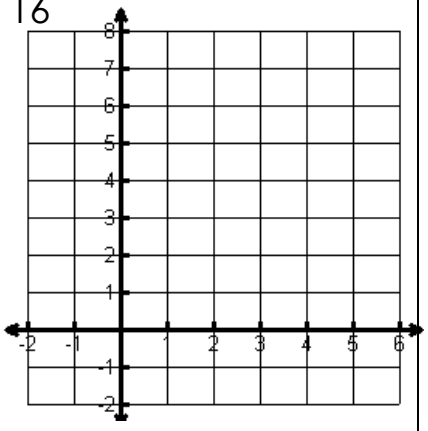
2. $\frac{x^2}{4}+\frac{y^2}{9}=1$



Center: *Foci:

Vertices: Co-Vertices:

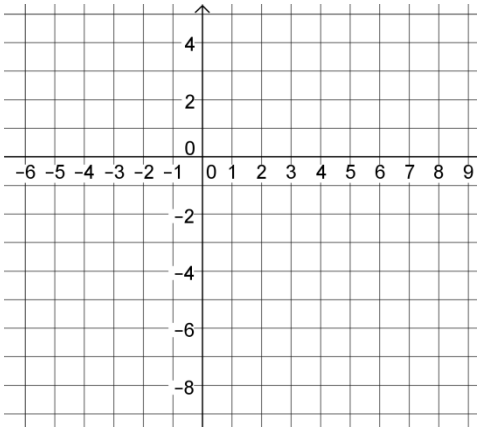
3. $\frac{(x-2)^2}{4}+\frac{(y-3)^2}{16}=1$



Center: * Foci:

Vertices: Co-Vertices:

4. $\frac{(x-1)^2}{49}+\frac{(y+2)^2}{16}=1$



Center: *Foci:

Vertices: Co-Vertices: