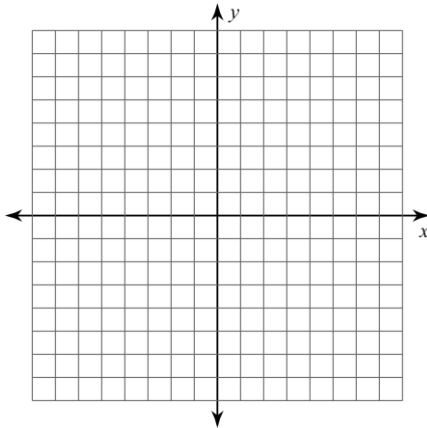


## CONIC SECTIONS PRACTICE PROBLEMS

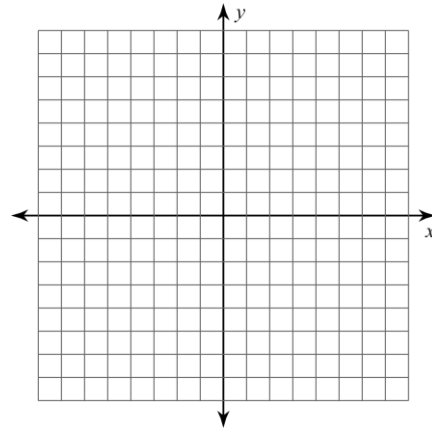
1.  $y = -(x+1)^2 - 2$

Vertex is (\_\_\_\_, \_\_\_\_); It opens \_\_\_\_.



2.  $(x+1)^2 + (y-4)^2 = 9$

center is (\_\_\_\_, \_\_\_\_); radius is \_\_\_\_



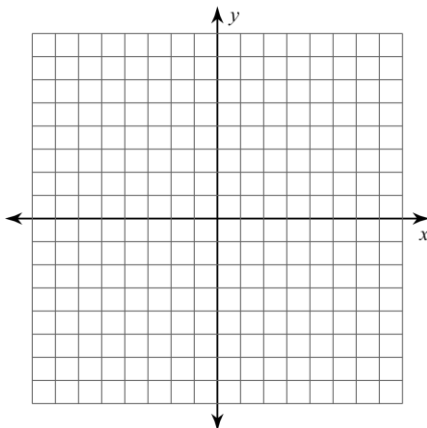
3.  $\frac{x^2}{4} + \frac{y^2}{9} = 1$

Center is (\_\_\_\_, \_\_\_\_)

The major axis is parallel to the \_\_\_\_-axis

The length of the major axis is \_\_\_\_.

The length of the minor axis is \_\_\_\_.



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

center is (\_\_\_\_, \_\_\_\_)

Asymptotes are \_\_\_\_\_ & \_\_\_\_\_

Vertices are (\_\_\_\_, \_\_\_\_) & (\_\_\_\_, \_\_\_\_)

