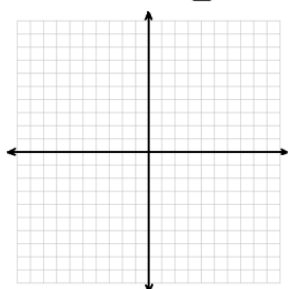
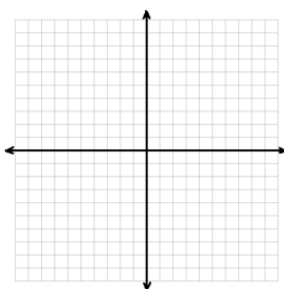
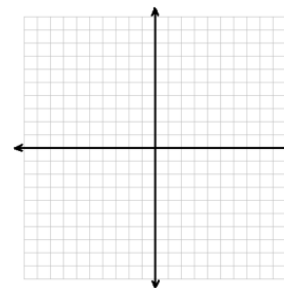


## 9-2

## Solving a system of linear and quadratic equations graphically

Objective: I can solve a system of linear and/or quadratic equations graphically

## Warm-Up

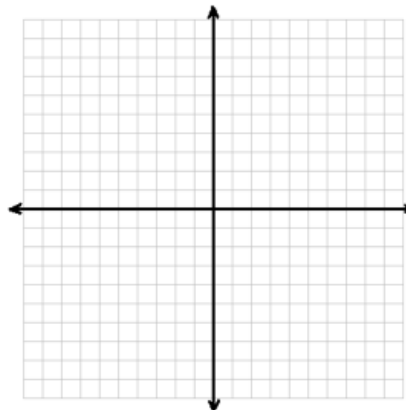
Graph  $y = \frac{3}{2}x + 4$ Graph  $y = (x - 3)^2 + 2$ Graph  $y = x^2 + 6x + 9$ 

When solving a system of linear equations graphically, what did the SOLUTION look like?

When solving a system of linear AND quadratic equations, what might the possible solutions look like?

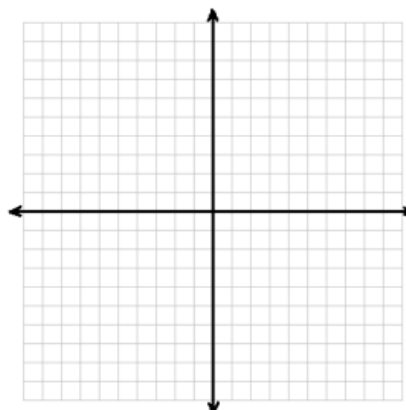
Find the real solutions of the given system by graphing:

$$\begin{cases} y = x^2 \\ y = 2x \end{cases}$$



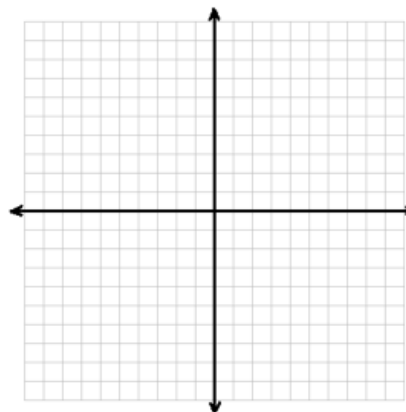
Find the real solutions of the given system by graphing:

$$\begin{cases} y = x^2 + 4x + 7 \\ y = 2x + 1 \end{cases}$$



Find the real solutions of the given system by graphing:

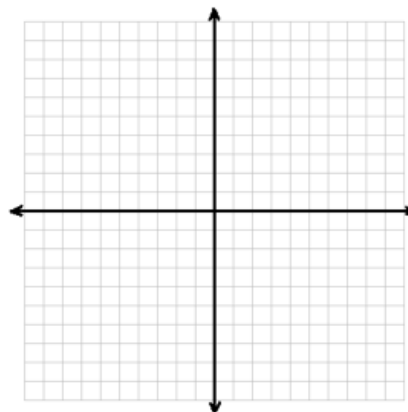
$$\begin{cases} y = -(x + 2)^2 + 3 \\ y = 3 \end{cases}$$



When solving a system of 2 quadratic equations, what might the possible solutions look like?

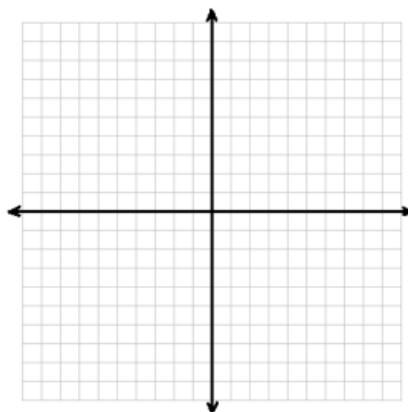
Find the real solutions of the given system by graphing:

$$\begin{cases} y = x^2 + 4x + 5 \\ y = -x^2 + 2x + 2 \end{cases}$$



Find the real solutions of the given system by graphing:

$$\begin{cases} y = x^2 + 2 \\ y = -x^2 + 2x + 2 \end{cases}$$



Find the real solutions of the given system by graphing:

$$\begin{cases} y = (x - 3)^2 + 4 \\ y = -2(x - 3)^2 + 4 \end{cases}$$

