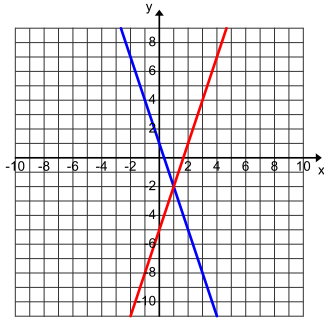


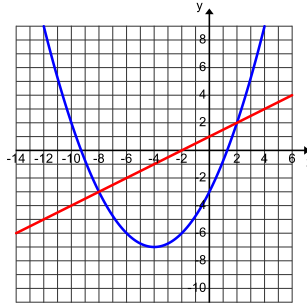
Solving Systems of Non-Linear Equations Graphically

1. Use the graphs to determine the solution(s) to the system of equations. Approximate solutions as needed.

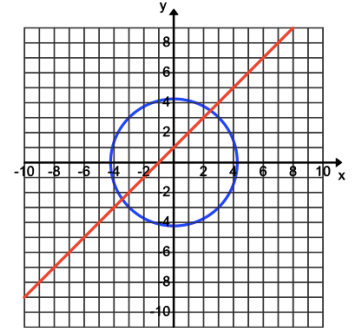
a)



b)



c)



2. Solve the system of equations using substitution or elimination

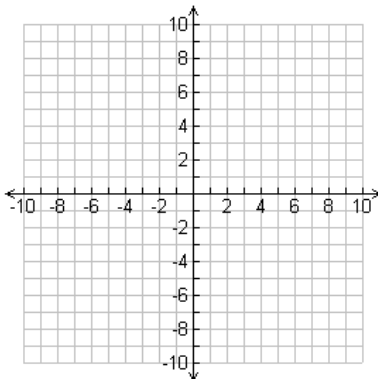
A) 
$$\begin{cases} y = 4x - 10 \\ y = -6 \end{cases}$$

B) 
$$\begin{cases} 2x + y = -3 \\ 2x + 6y = -18 \end{cases}$$

Review Problems:

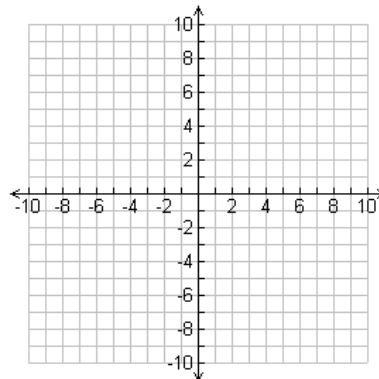
3. Graph the following Quadratic Equation:

$$y = 2(x - 3)(x + 1)$$



4. Graph the following Quadratic Equation:

$$y = (x - 7)^2 + 1$$



5. Simplify the following expression:

$$\frac{y^0 \left(x^{\frac{1}{2}}\right)^2}{x^{\frac{3}{2}} * x^{\frac{2}{3}}}$$

6. Solve the quadratic equation by factoring:

$$6x^2 - 21x + 15 = 0$$

**Solve the system of equations by first graphing the equations and then identifying the solutions. If you have a graphing calculator and would like to use it you are welcome to. Approximate solutions to the nearest hundredth.**

7.  $y = \frac{1}{3}x + \frac{5}{3}$   
 $x^2 + y^2 = 25$

8.  $y = x^2 - 4x - 6$   
 $y = x$

