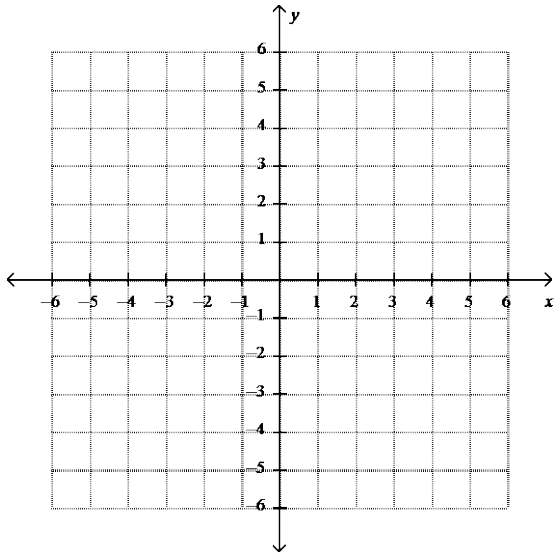


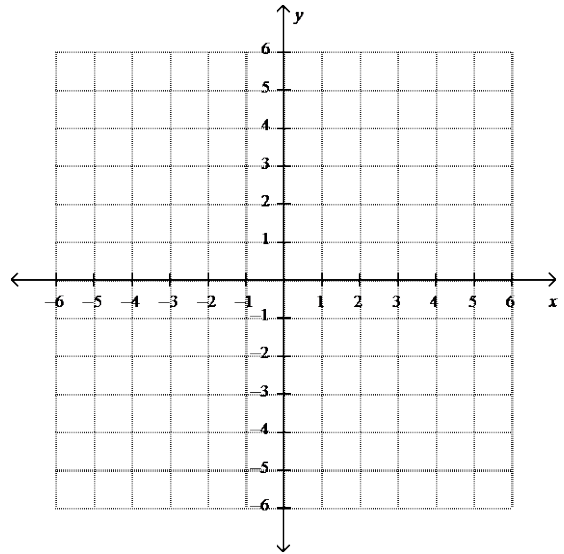
# Solving Systems of Linear Equations by Substitution

Graph the following system of equations, find the solution.

1. 
$$\begin{cases} y = x - 1 \\ y = -x + 3 \end{cases}$$



2. 
$$\begin{cases} y = 4x + 6 \\ y = 2x + 2 \end{cases}$$



Confirm the same answers algebraically.

1. 
$$\begin{cases} y = x - 1 \\ y = -x + 3 \end{cases}$$

2. 
$$\begin{cases} y = 4x + 6 \\ y = 2x + 2 \end{cases}$$

**Solve the following systems algebraically using substitution.**

3. 
$$\begin{cases} y = -5x + 8 \\ y = -2x - 7 \end{cases}$$

4. 
$$\begin{cases} y = 22x + 4 \\ y = 14x + 28 \end{cases}$$

5. Suppose a video store charges nonmembers \$4 to rent each video. A store membership costs \$21 and members pay only \$2.50 to rent each video. For what number of videos is the cost the same?

6. Suppose your club is selling candles to raise money. It costs \$100 to rent a booth from which to sell the candles. If the candles cost your club \$1 each and are sold for \$5 each, how many candles must be sold to equal your expenses?