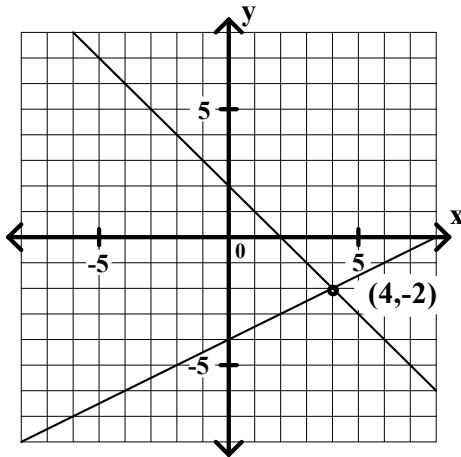


## Precalculus Worksheet #1 Unit 7 Selected Solutions

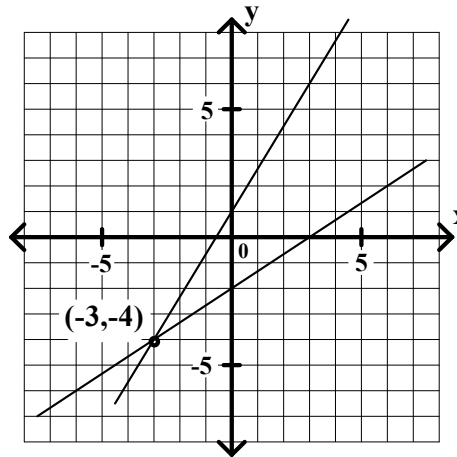
Use the graphing method to solve each of the following systems of equation.

1.  $x - 2y = 8$        $x = 4$   
 $x + y = 2$        $y = -2$



$$\begin{aligned} x - 2y &= 8 \\ -2y &= -x + 8 \\ y &= \frac{1}{2}x - 4 \\ x + y &= 2 \\ y &= -x + 2 \end{aligned}$$

3.  $2x - 3y = 6$        $x = -3$   
 $-5x + 3y = 3$        $y = -4$



$$\begin{aligned} 2x - 3y &= 6 \\ -3y &= -2x + 6 \\ y &= \frac{2}{3}x - 2 \\ -5x + 3y &= 3 \\ 3y &= 5x + 3 \\ y &= \frac{5}{3}x + 1 \end{aligned}$$

Solve each of the following systems of equations using the substitution method. Show your work neatly organized.

5.  $2x + 3y = 19$        $x = 2$   
 $y = 4x - 3$        $y = 5$

$$\begin{aligned} 2x + 3(4x - 3) &= 19 & y &= 4x - 3 \\ 2x + 12x - 9 &= 19 & y &= 8 - 3 \\ 14x - 9 &= 19 & y &= 5 \\ 14x &= 28 \\ x &= 2 \end{aligned}$$

8.  $x = -2y + 1$        $x = 13/11$   
 $4x - 3y = 5$        $y = -1/11$

$$\begin{aligned} 4(-2y + 1) - 3y &= 5 & x &= -2y + 1 \\ -8y + 4 - 3y &= 5 & x &= \frac{2}{11} + \frac{11}{11} \\ -11y + 4 &= 5 \\ -11y &= 1 & x &= \frac{13}{11} \\ y &= \frac{-1}{11} \end{aligned}$$

Solve each of the following systems of equations using the multiplication-addition method. Show your work neatly organized.

9.  $4x + 3y = 7$        $x = -2$   
 $2x - y = -9$        $y = 5$

$$\begin{array}{r} 4x + 3y = 7 \\ -4x + 2y = 18 \\ \hline 5y = 25 \\ y = 5 \end{array} \qquad \begin{array}{r} 4x + 3y = 7 \\ 6x - 3y = -27 \\ \hline 10x = -20 \\ x = -2 \end{array}$$

11.  $5x - 3y = 5$        $x = 17/11$   
 $3x - 4y = 1$        $y = 10/11$

$$\begin{array}{r} 15x - 9y = 15 \\ -15x + 20y = -5 \\ \hline 11y = 10 \\ y = \frac{10}{11} \end{array} \qquad \begin{array}{r} 20x - 12y = 20 \\ -9x + 12y = -3 \\ \hline 11x = 17 \\ x = \frac{17}{11} \end{array}$$