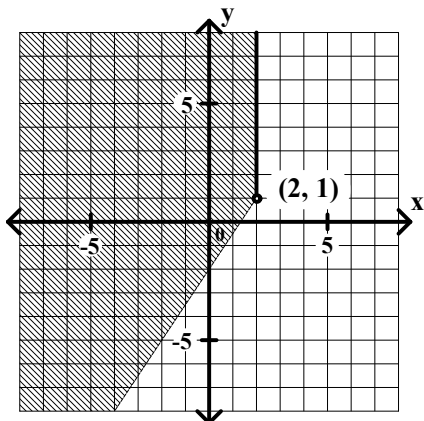


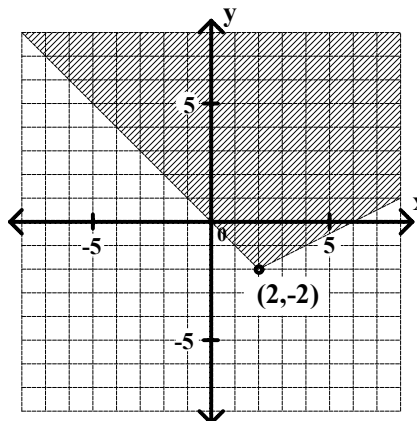
Algebra II Worksheet #2 Unit 4 selected solutions

2. $x \leq 2$ and $3x - 2y < 4$



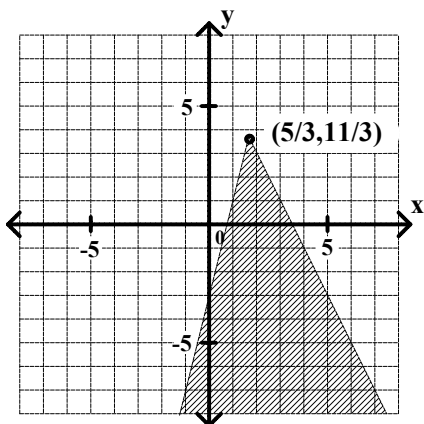
$$\begin{aligned} 3x - 2y &< 4 \\ -2y &< -3x + 4 \\ y &> \frac{3}{2}x - 2 \end{aligned}$$

4. $x - 2y < 6$ and $x + y > 0$
 $y > -x$



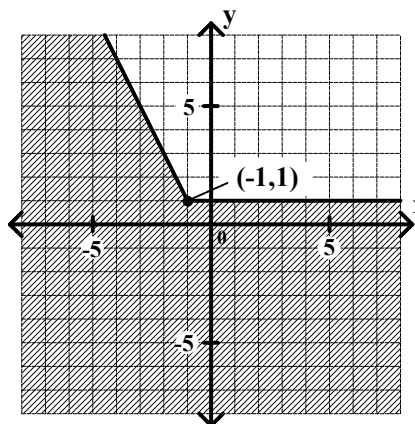
$$\begin{aligned} x - 2y &< 6 \\ -2y &< -x + 6 \\ y &> \frac{1}{2}x - 3 \end{aligned}$$

6. $4x - y > 3$ and $2x + y < 7$
 $-y > -4x + 3$ $y < -2x + 7$
 $y < 4x - 3$

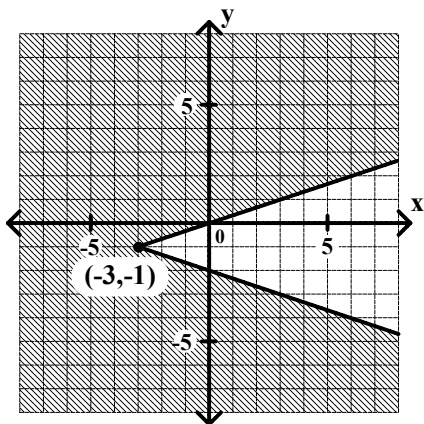


$$\begin{aligned} 4x - 3 &= -2x + 7 \\ 6x &= 10 \\ x &= 5/3 \\ y &= 20/3 - 9/3 \\ y &= 11/3 \end{aligned}$$

7. $y \leq 1$ or $2x + y \leq -1$
 $y \leq -2x - 1$

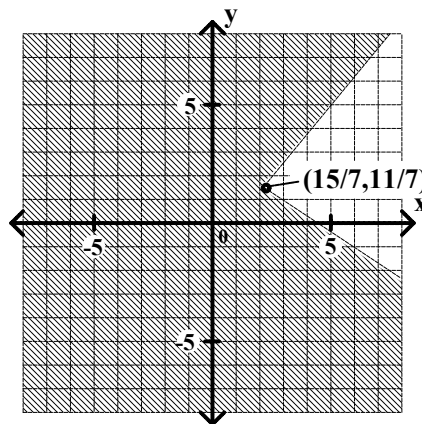


9. $x - 3y \leq 0$ or $x + 3y \leq -6$



$$\begin{aligned} x - 3y &\leq 0 \\ -3y &\leq -x \\ y &\geq \frac{1}{3}x \\ x + 3y &\leq -6 \\ 3y &\leq -x - 6 \\ y &\leq -\frac{1}{3}x - 2 \end{aligned}$$

12. $2x + 3y < 9$ or $6x - 5y < 5$



$$\begin{aligned} 2x + 3y &< 9 \\ 3y &< -2x + 9 \\ y &< \frac{2}{3}x + 3 \\ 6x - 5y &< 5 \\ -5y &< -6x + 5 \\ y &> \frac{6}{5}x - 1 \end{aligned}$$