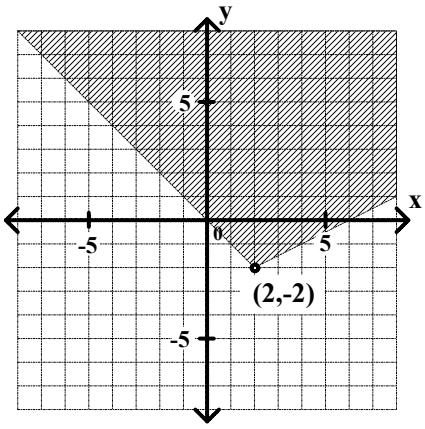
General Algebra II Worksheet #3 Unit 4 Selected Solutions

Graph the solution set of each of the following compound inequalities on the graph paper provided. Find the coordinates of any vertex.

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

$y > -x$



$x - 2y < 6$

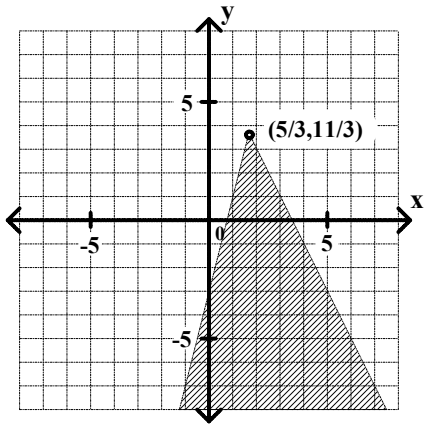
$-2y < -x + 6$

$y > \frac{1}{2}x - 3$

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

$-y > -4x + 3$ $y < -2x + 7$

$y < 4x - 3$



$4x - 3 = -2x + 7$

$6x = 10$

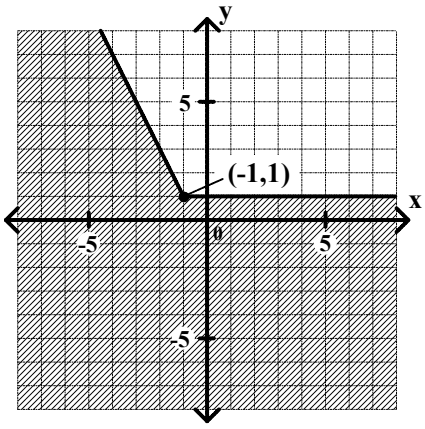
$x = 5/3$

$y = 20/3 - 9/3$

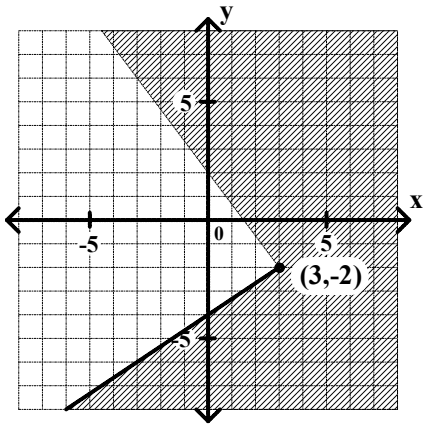
$y = 11/3$

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

$y \leq -2x - 1$



7. $2x - 3y \geq 12$ or $4x + 3y > 6$



$2x - 3y \geq 12$

$-3y \geq -2x + 12$

$y \leq \frac{2}{3}x - 4$

$4x + 3y > 6$

$3y > -4x + 6$

$y > \frac{-4}{3}x + 2$