

Algebra 2 Bellwork Friday, October 10, 2014

Use a sheet of graph paper to graph each inequality.

1. $y < -\frac{1}{2}x - 3$

2. $12x - 18y \geq 36$

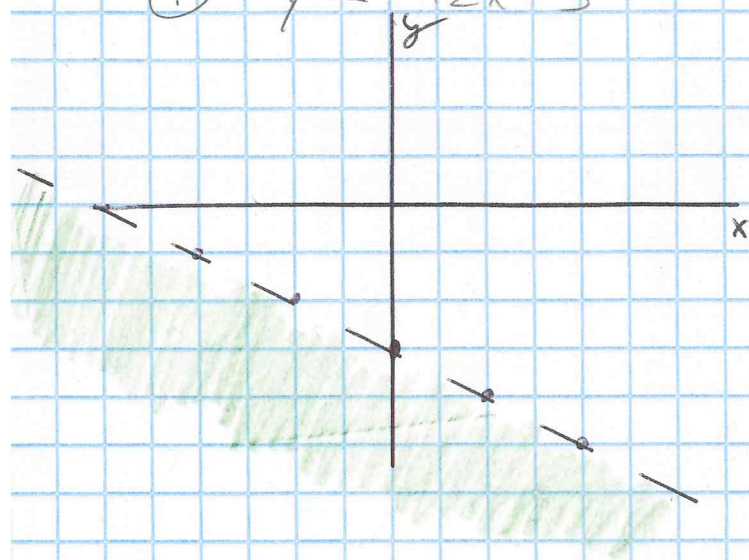
3. $y > 4$

4. $x \leq -2$

5. a. Graph these two inequalities on the same set of axes. $y > 2x$ $10x + 8y < 40$

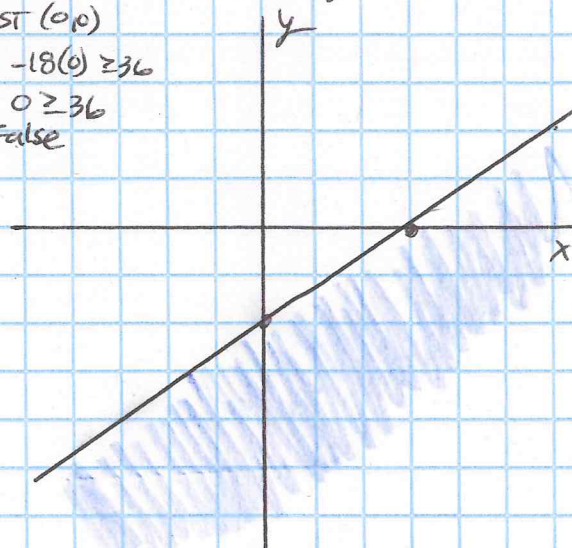
b. What is the solution to this system of inequalities?

① $y < -\frac{1}{2}x - 3$

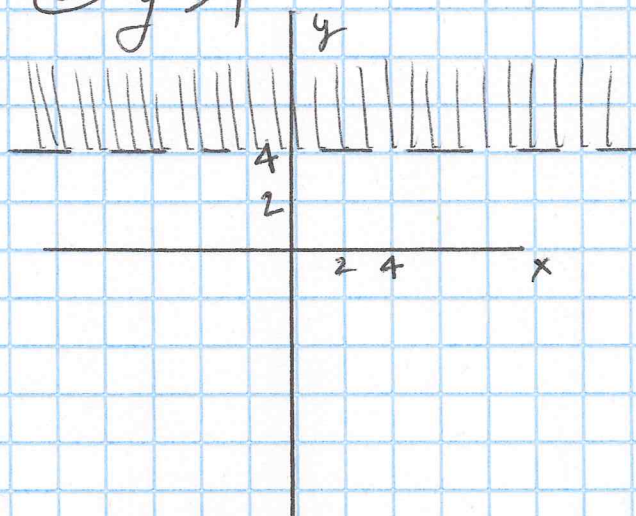


② $12x - 18y \geq 36$

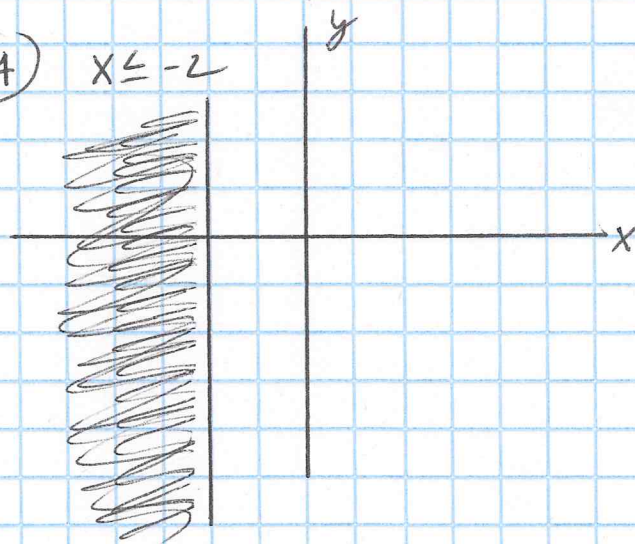
$x\text{-int} = 3$ $y\text{-int} = -2$
 TEST (0,0)
 $12(0) - 18(0) \geq 36$
 $0 \geq 36$
 False



③ $y > 4$



④ $x \leq -2$

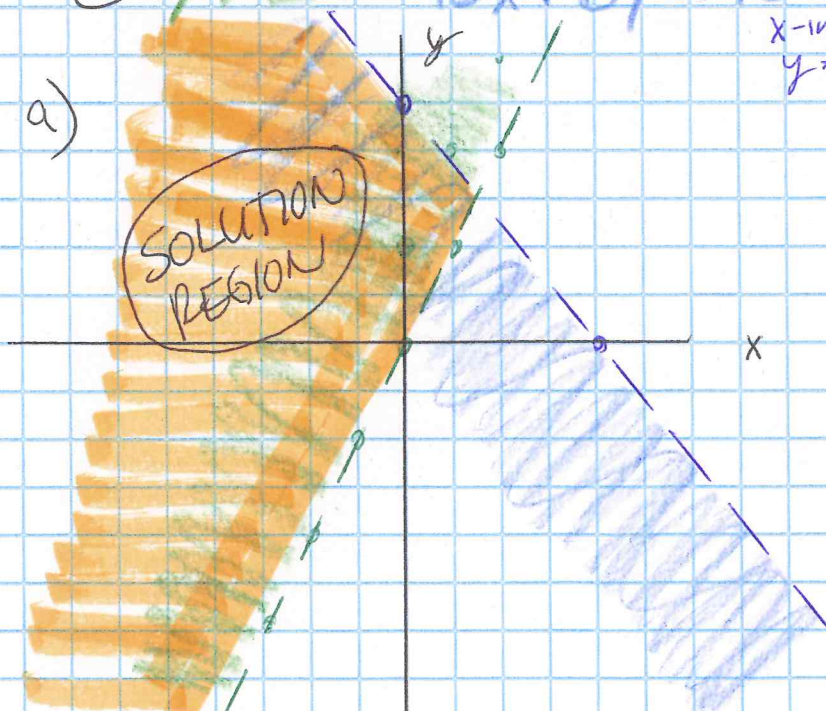


⑤ $y > 2x$ $10x + 8y < 40$

$x\text{-int} = 4$
 $y\text{-int} = 5$

Test (0,0) $10(0) + 8(0) < 40$
 $0 < 40$
 TRUE

a)



b) THE SOLUTION IS THE AREA THAT WAS SHADED TWICE, ONCE FOR EACH GRAPH.
 (ORANGE AREA)