Coordinate Algebra Day 21

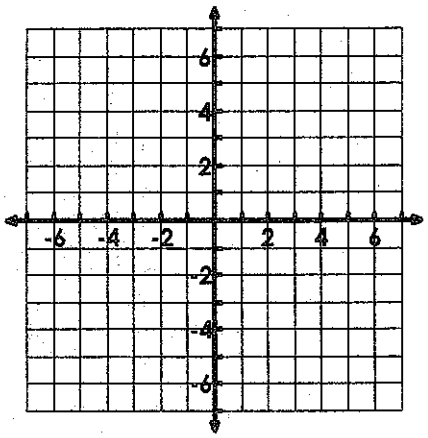
Name: _____ Date: _____

Notes for Graphing Systems of Linear Inequalities

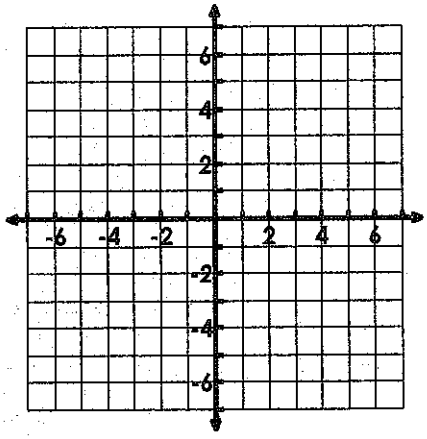
1. Graph the _____ and appropriate _____ for each inequality on the same coordinate plane.
2. Remember: _____ for $<$ and $>$, and _____ for $\leq$ and $\geq$.
3. Place your _____ on the ____-_____.
   -For ____ or ____, shade _____ the y-intercept
   -For ____ or ____, shade _____ the y-intercept
4. The solution is the section where all the shadings _____.

Graph each System of Inequalities:

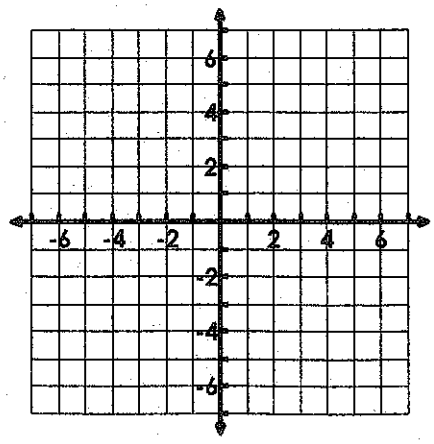
1. $x + y > 5$
   $2x - 4y > 4$



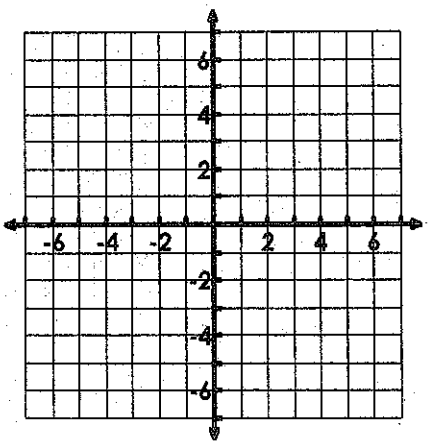
2. $y \geq x + 2$
   $x \leq -2$



3. $y \leq 2x + 1$
   $y > -2x + 5$

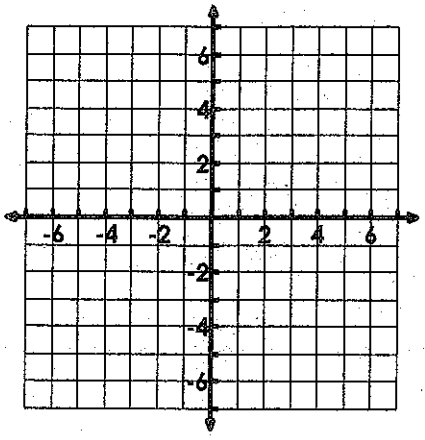


4. $y > 2x + 1$
   $y \leq -2x + 5$

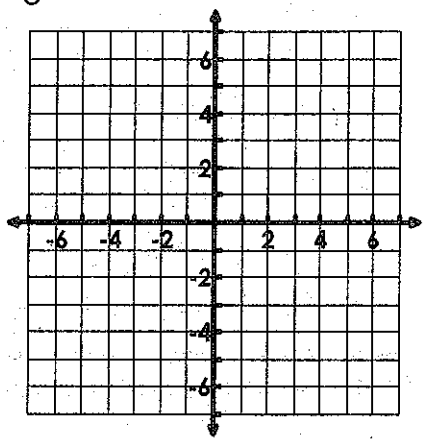


Graph each System of Inequalities:

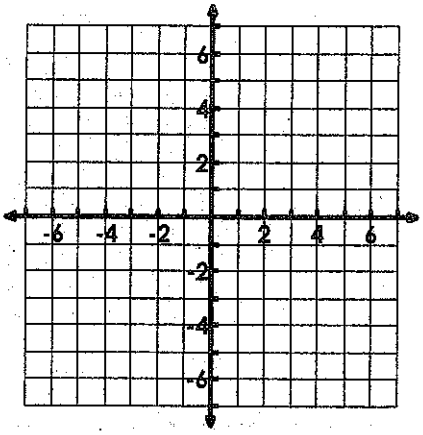
5. $x + 2y \le 4$
$-2x + y \ge -2$



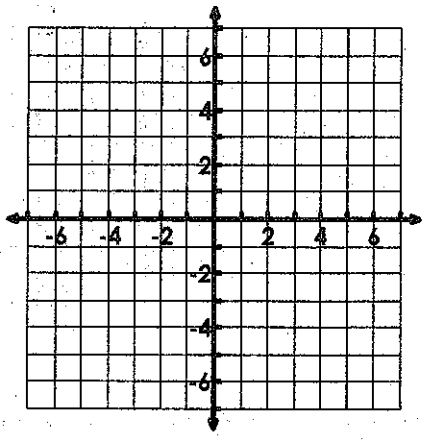
6. $x - 2y > -6$
$-2x + 4y \ge -8$



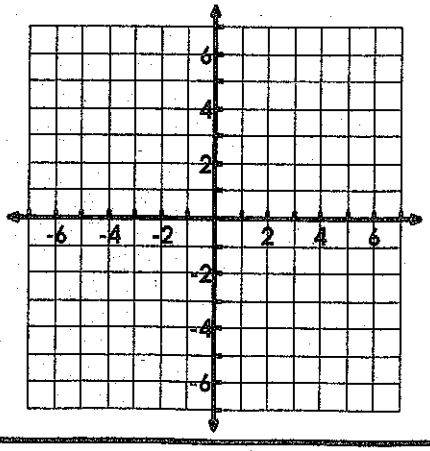
7. $x + y \ge 4$
$-3x + y < 1$



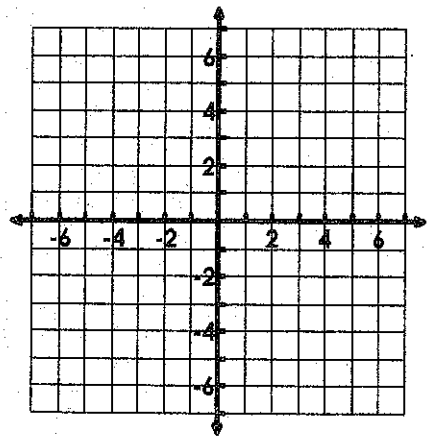
8. $3x - 6y > 6$
$3x - y \ge 2$



9. $2x + 2y \ge -4$
$-10x - 5y \ge 10$



10. $y \le 5$
$x > -6$



Coordinate Algebra Day 21

Name: KEY-WALSH Date: Unit 2

Notes for Graphing Systems of Linear Inequalities

1. Graph the slope and appropriate y intercept for each inequality on the same coordinate plane.
2. Remember: dotted line for < and >, and solid line for ≤ and ≥.
3. Place your finger on the y - intercept.
   -For < or ≤, shade below the y-intercept
   -For > or ≥, shade above the y-intercept
4. The solution is the section where all the shadings overlap.

Graph each System of Inequalities:

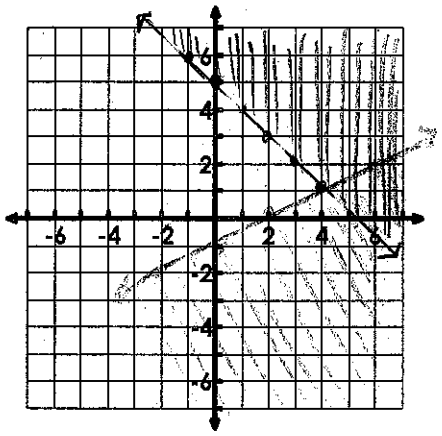
1. $x + y > 5$
   $2x - 4y > 4$

6 / 1

① $y > -x + 5$

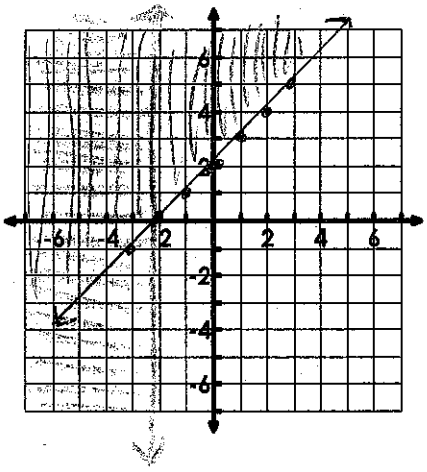
② $-4y > -2x + 4$

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



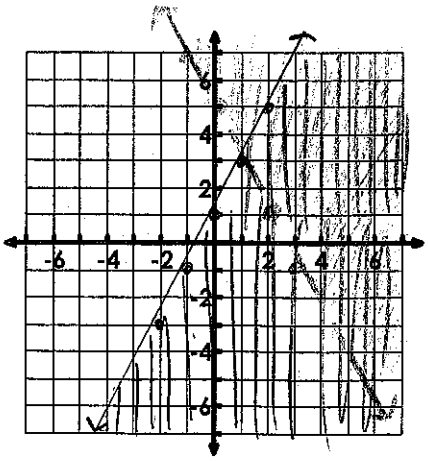
2. $y \geq x + 2$
   $x \leq -2$

-4 / 1



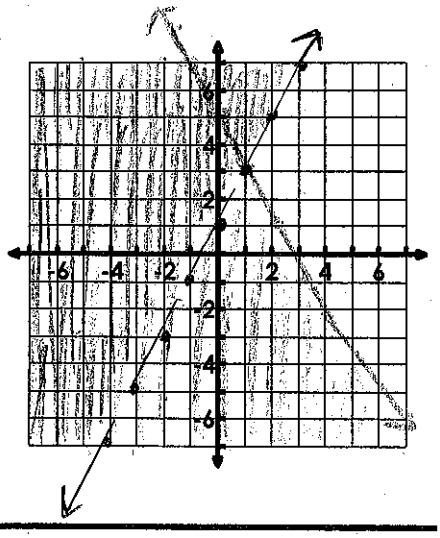
3. $y \leq 2x + 1$
   $y > -2x + 5$

3 / 5



4. $y > 2x + 1$
   $y \leq -2x + 5$

-2 / 4



Graph each System of Inequalities:

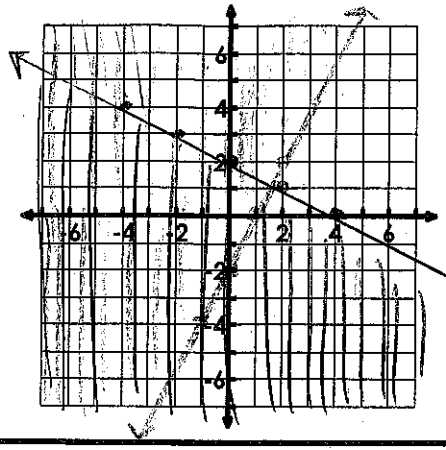
5. $x+2y \le 4$
$-2x+y \ge -2$

$-4 / 0$

$2y \le -x+4$

① $y \le -\frac{1}{2}x+2$

$y \ge 2x-2$



6. $x-2y > -6$
$-2x+4y \ge -8$

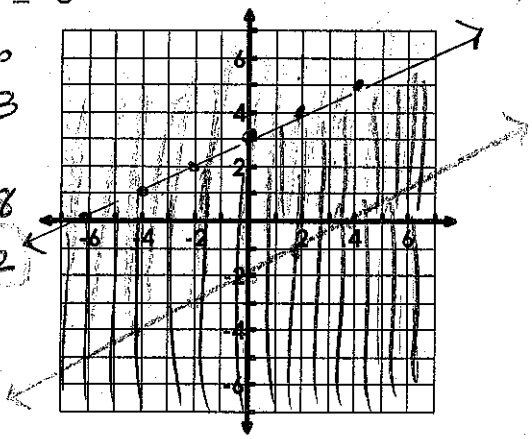
$0 / 0$

$-2y > -x-6$

① $y < \frac{1}{2}x+3$

$4y \ge 2x-8$

$y \ge \frac{1}{2}x-2$

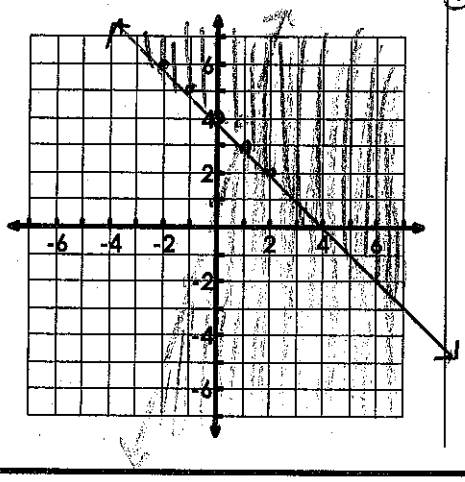


7. $x+y \ge 4$
$-3x+y < 1$

$4 / 1$

① $y \ge -x+4$

② $y < 3x+1$



8. $3x-6y > 6$
$3x-y \ge 2$

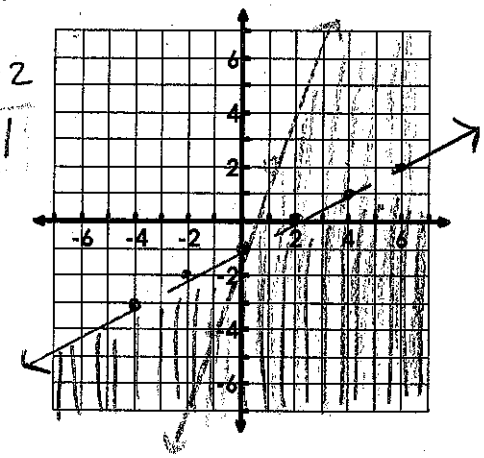
$3 / -3$

$-6y > -3x+6$

① $y < \frac{1}{2}x-1$

$-y \ge -3x+2$

$y \le 3x-1$



9. $2x+2y \ge -4$
$-10x-5y \ge 10$

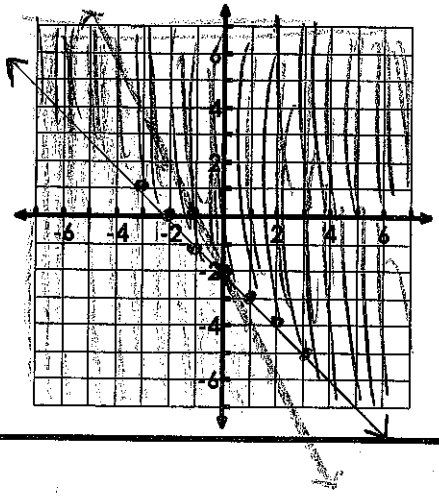
$-4 / 3$

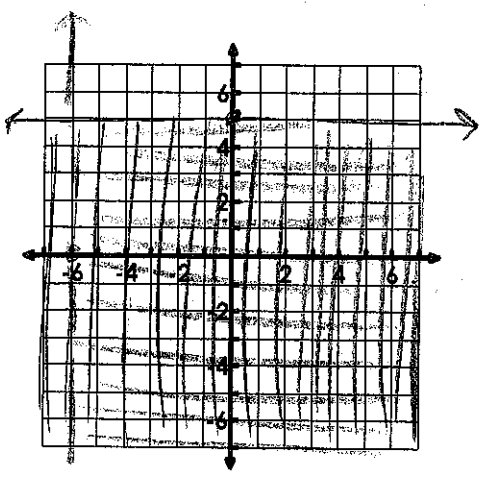
$2y \ge -2x-4$

① $y \ge -x-2$

$-5y \ge 10x+10$

$y \le -2x-2$



10. $y \le 5$
$x > -6$

$0 / 2$