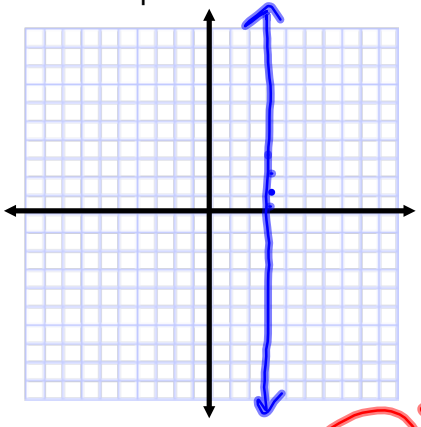
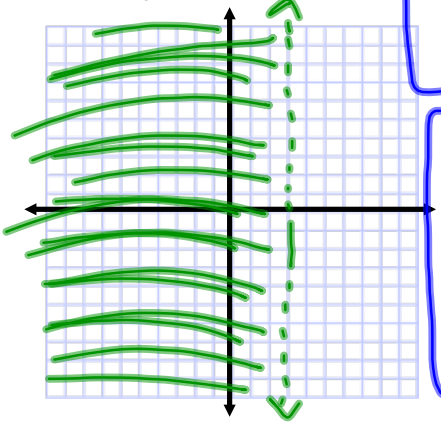
7-9 Warm Up

1. Graph x = 3.



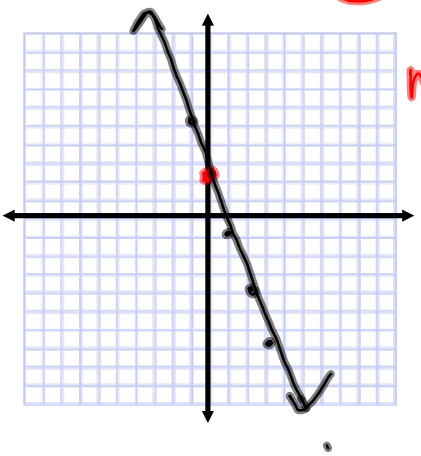
2. Graph x < 3.



< >
dot

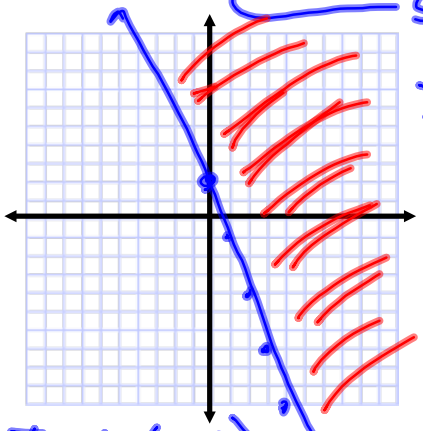
≤ ≥
Solid

3. Graph y = -3x + 2



$m = \frac{-3}{1}$ down 3 right

4. Graph y ≥ -3x +2



Test (0,0)
x, y

$y \geq -3x+2$

$0 \geq -3(0)+2$

$0 \geq 2$

FALSE

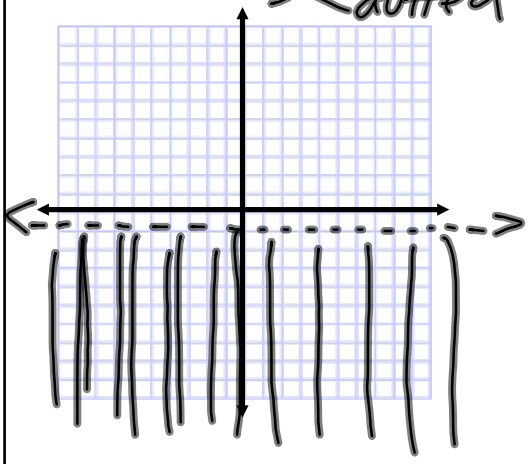
Algebra 7-9: Graphing Linear Inequalities

Reminders

- Use a dotted line when the inequality is < or >. This means that the values on the line are not included as part of the solution.
- Use a solid line when the inequality is ≤ or ≥. This means that the values on the line are included as part of the solution.
- If the equation is in standard form, (Ax+By=C) we need to solve for y and put into y=mx+b.
- If you're not sure what side to shade, then test a point by plugging in (0,0) for x and y. (or any point)
- ~~~~~. If it works (True), then shade that side. If it doesn't work, then shade the other side. An easy test point is (0,0).

1. Graph $y < -1$.

dotted



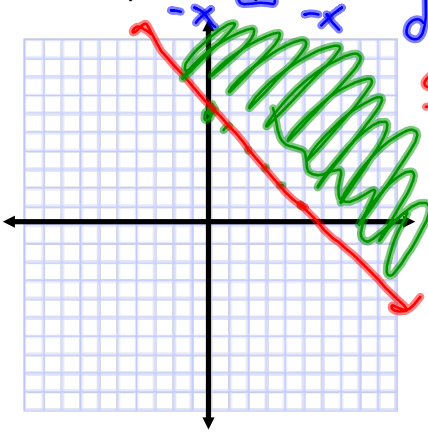
2. Graph $x + y \geq 6$

$y \geq -x + 6$

Solid

Start

$-x$ $-x$



$m = \frac{-1}{1}$ down 1 right

Test (0,0)

$x + y \geq 6$

$0 + 0 \geq 6$

$0 \geq 6$

False

3. Suppose crepe paper costs $2.00 per package, and balloons are $1.50 per pack. The decorations committee for the dance bought some of each and stayed within their $60 budget.

x = packages of crepe
y = pack of balloons

a. Write an inequality that describes the situation. $2x + 1.50y \leq 60$

b. Graph the possible number of packages of each that they could have bought. Give 3 solutions.

(0, 4) (2, 3) (4, 5)

$2(4) + 1.50(5) = 15.5$

$2(0) + 1.5(4) = 6$

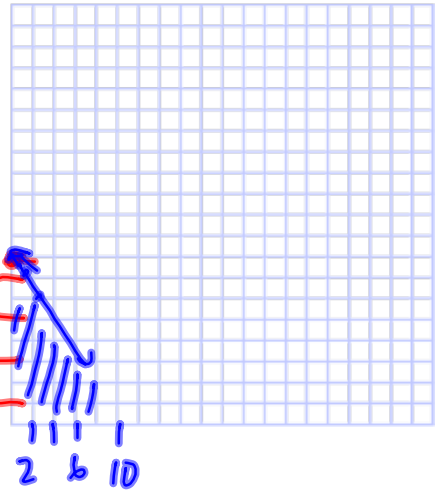
$2x + 1.50y \leq 60$

$-2x \quad -2x$

$\frac{1.50y}{1.5} \leq \frac{-2x}{1.5} + \frac{60}{1.5}$

$y \leq -1.3x + 40$

$m = \frac{-4}{3}$



Assign 7-9
3-9, 12-16 Even (4 graphs)

Chapter 7 Review Day 1: Practice Test
Chapter 7 Review Day 2: pg 479, 2-21