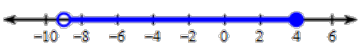
Please take out 4.2 HW to check & review before today's quiz

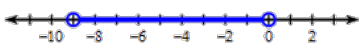
## Answers to 4.2 HW

1) $k > 4$ or $k \leq -10$ :

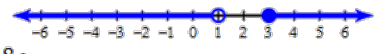

2) $-9 < x \leq 4$ :



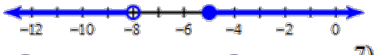

3) $-9 < a < 0$ :



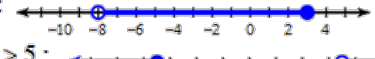

4) $n \geq 3$ or $n < 1$ :



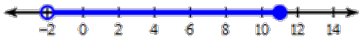

5) $b \geq -5$ or $b < -8$ :



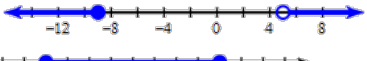

6) $-8 < a \leq 3$ :



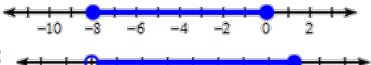

7) $-2 < x \leq 11$ :



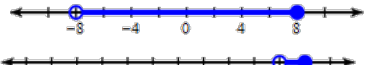

8) $n \leq -9$ or $n > 5$ :



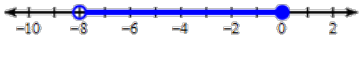

9) $-8 \leq k \leq 0$ :



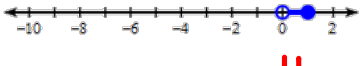

10) $-8 < n \leq 8$ :



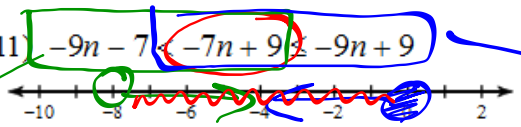

11) $-8 < n \leq 0$ :




12) $0 < m \leq 1$ :




11) $-9n - 7 < -7n + 9 \leq -9n + 9$




→ "And"

$-9n - 7 < -7n + 9$

$+7n \quad +7n$

$-2n - 7 < 9$

$+7 \quad +7$

$\frac{-2n}{-2} < \frac{16}{-2}$

$n > -8$

$-7n + 9 \leq -9n + 9$

$+7n \quad +7n$

$9 \leq -2n + 9$

$-9 \quad -9$

$\frac{0}{-2} \leq \frac{-2n}{-2}$

$0 \geq n$

or

$n \leq 0$

# November 23rd

Due Next Class: HW 4.3

Unit 4: Inequalities
Lesson 4.3: Linear Inequalities

## Get Ready:

1) Determine if the following can be a value for x:

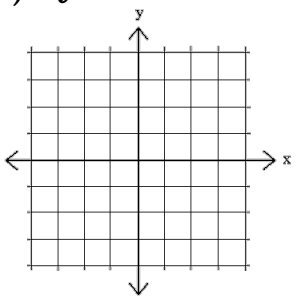
a. If $x < 7$, then x can be 5 Sí

b. If $x > -15$, then x can be -15 No

c. If $x \geq 42$, then x can be 42 Sí

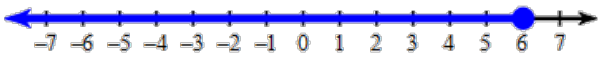
Graph the following:

3) $y = 2x - 3$



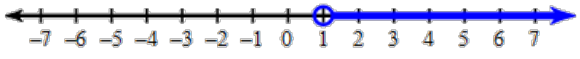

2) Identify differences between the solutions represented in the graphs below:

a.




Closed
→ Can also be a soln.

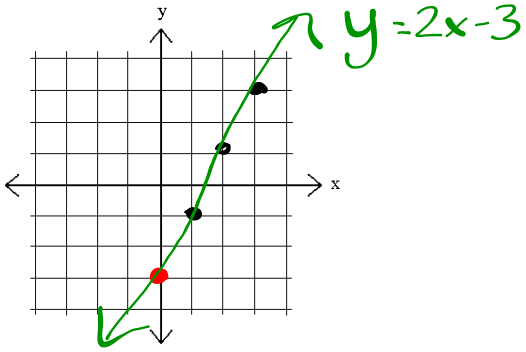
b.




Open
→ Not a Soln

m b

$y = 2x - 3$




Where are all of the solutions?

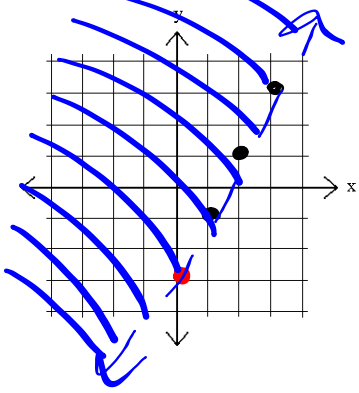
Pts on the Line.

Name a possible solution

(0, -3) (2, -1)

m b

$y > 2x - 3$




Name a possible solution

How do we represent the **RANGE** of solutions?

Graphing Linear Inequalities is just like graphing lines except for 2 things

## Super Important Information

Are the values on the line apart of the solution set?

**Line**

Similar to

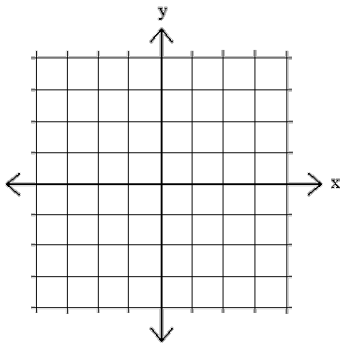
| | |
|---|---|
| $\leq$ $\geq$ | Solid |
| $<$ $>$ | Dashed |

Where is the range of solutions?

**Shading**

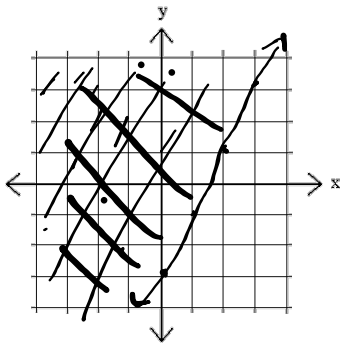
| | |
|---|---|
| $>$ $\geq$ | Above the line |
| $<$ $\leq$ | Below the line |

$y > 2x - 3$



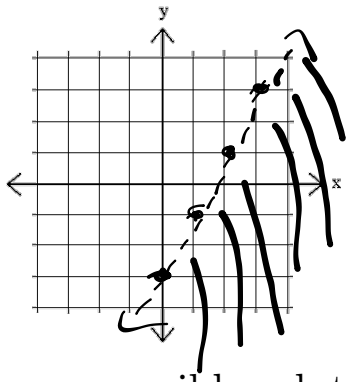

Name a possible solution

$y \geq 2x - 3$



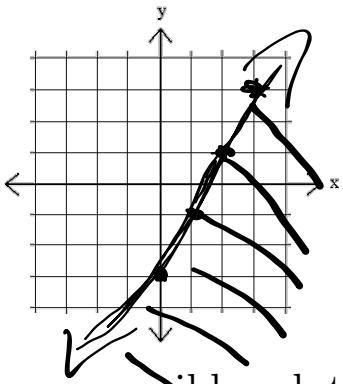

Name a possible solution

$y < 2x - 3$




Name a possible solution

$y \leq 2x - 3$




Name a possible solution