# January 5, 2015

5th
6th

## Starter

Solve each for the given variable.

1. $r + (+14) = -5$

$-14 \quad -14$

$r = -19$

2. $-3k = 21$

$\frac{-3k}{-3} = \frac{21}{-3}$

$k = -7$

3. $-12 = 2x - 8$

$+8 \quad +8$

$\frac{-4}{2} = \frac{2x}{2}$

$-2 = x$

# 1/5 - Graphing Inequalities

| | |
|---|---|
| $<$ | *less than* |
| $>$ | *greater than* |
| $\leq$ | *less than or equal to* |
| $\geq$ | *greater than or equal to* |

*What do these mean?*

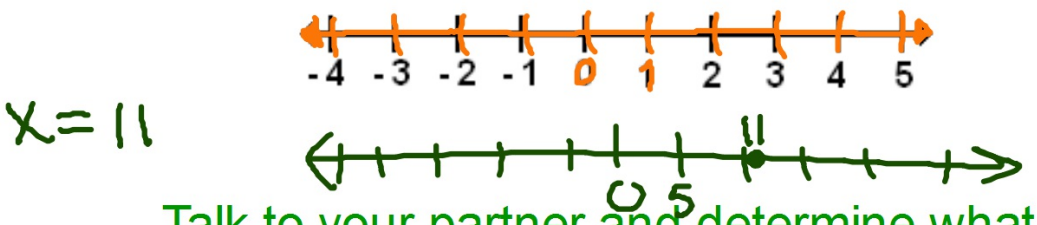
$x < 3$ x is all values lower than 3, ∞ #

$n > 2$ n is all values above 2, ∞ #

$a \leq -1$ a is -1 or any value lower

$b \geq -2$ b is -2 or anything higher

*Answers to inequalities are graphed on numberlines.*



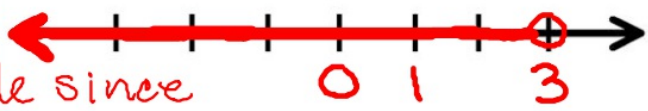

Talk to your partner and determine what EVERY graphed answer **must** have:

- *arrows on both ends*
- *equally-spaced marks all along the line*
- *number labels - at least these 3:*
  1. *Zero*
  2. *the number you are counting by*
  3. *the number you are graphing*

*Graph each of the following:*

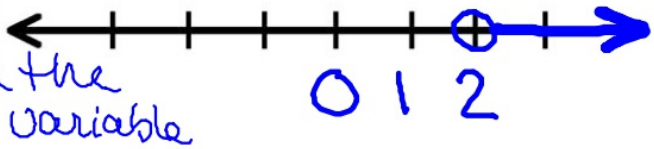
$x < 3$

Use an open circle since it cannot equal 3

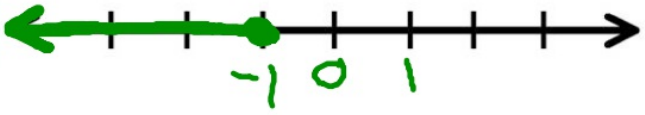



$n > 2$

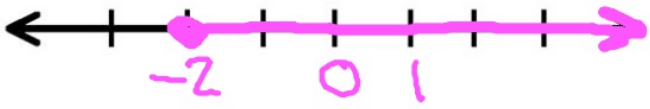
Shade in the direction the symbol points (IF) the variable is first.




$a \leq -1$




$b \geq -2$



*Graph each of the following:*

**FLIP IT!**

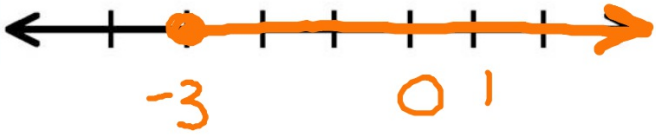
Flip the Symbol too!

$5 \geq x$

$x \leq 5$

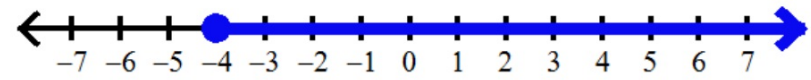

$-3 \leq k$

$k \geq -3$

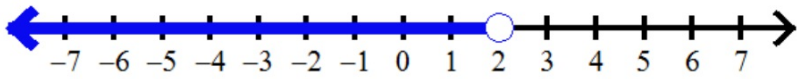



$2 > n$

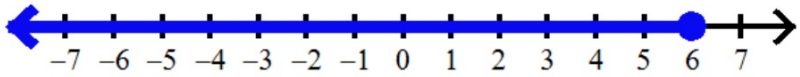
*Write the inequality for each of these number lines:*



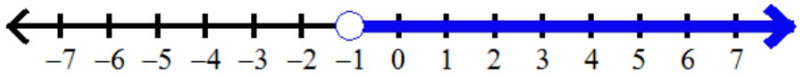

$e \geq -4$




$r < 2$




$a \leq 6$




$m > -1$


Homework
Blue WS1
Due Tuesday