Do Now:

1.) 37 + x = -24
-37 -37
x = -61

x = -61

2.) -4 = m - 11
+11 +11
7 = m

m = 7

3.) k - 4.7 = -3.2
+4.7 +4.7
k = 1.5

4.7
-3.2
1.5

k = 1.5

Oct 20-10:54 AM

3.6 Solving Inequalities Using Addition or Subtraction

7.NS
7.EE

> greater than ≥
< less than ≤

- SWBAT solve inequalities using addition or subtraction.
- SWBAT write a verbal sentence as an equation.
- SWBAT represent situations using algebraic symbols; analyze situations using algebraic symbols.

- Calculators: No

Oct 20-10:57 AM

How can we solve this problem...

In a game of disc golf, the target is beyond a pond the far end of which is 300 feet away. Your first throw travels 134 feet. How far does your second throw have to go in order to clear the pond?

Oct 20-11:27 AM

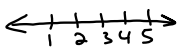
inequality- a statement formed by placing an inequality symbol (<, >, ≤, ≥) between two expressions

< less than > greater than
≤ less than or equal to ≥ greater than or equal to

solution of an inequality- the set of numbers that you can substitute for the variable to make the inequality true

Oct 20-10:58 AM

Graphing Inequalities



Use a number line to graph inequalities

-use an open circle to graph less than (<) or greater than (>)

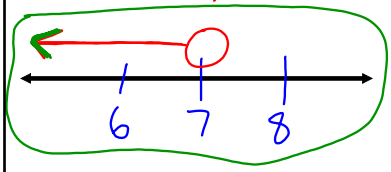
-use a closed circle to graph less than or equal to (≤) or greater than or equal to (≥)

-keep the variable on the left side of the inequality symbol

Oct 20-11:04 AM

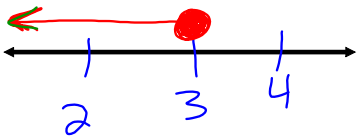
Graphing Inequalities

a. y < 7 ← open circle



Is 7 an answer? No
Is 4 an answer? Yes
Is 8.5 an answer? No

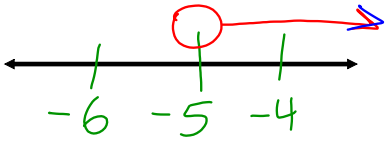
b. q ≤ 3



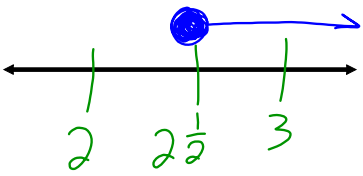
Oct 20-11:01 AM

c. $-5 < k$ Flip Not on left side!

$k > -5$



d. $h \geq 2\ 1/2$ Closed circle



Oct 19-11:51 AM

Graphing Inequalities

a. $z \geq 1$

b. $4 < p$

c. $k \leq -3.5$

d. $1/2 < m$

Oct 20-11:20 AM

Adding or Subtracting Inequalities

If $a > b$, then $a + c > b + c$

If $a > b$, then $a - c > b - c$

If $a < b$, then $a + c < b + c$

If $a < b$, then $a - c < b - c$

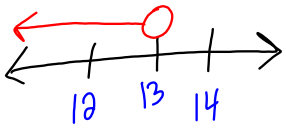
Oct 20-11:22 AM

Solve the inequality. Then graph its solution.

1. $x - 5 < 8$

$+5 \quad +5$

$x < 13$



$x - 5 = 8$

$+5 \quad +5$

$x = 13$

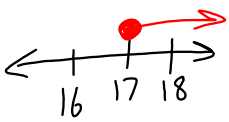
Oct 20-11:23 AM

Solve the inequality. Then graph its solution.

2. $y - 7 \geq 10$

$+7 \quad +7$

$y \geq 17$



Oct 20-11:24 AM

Solve the inequality. Then graph its solution.

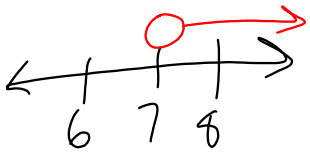
3. $15 < 8 + m$

$-8 \quad -8$

$7 < m$

Flip it around

$m > 7$

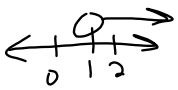


Oct 20-11:24 AM

Solve the inequality. Then graph its solution.

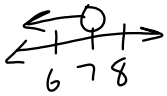
1. $x - 3 > -2$

$x > 1$



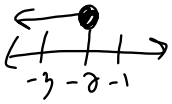
2. $6 > t - 1$

$t < 7$



3. $12 \geq p + 14$

$p \leq -2$



Oct 20-11:25 AM

Exit Pass 3.6

In a game of disc golf, the target is beyond a pond the far end of which is 300 feet away. Your first throw travels 134 feet. How far does your second throw have to go in order to clear the pond?

Oct 20-10:57 AM

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg. 41 #1-17, 21-26

Oct 20-10:57 AM

Reflection of Today's Lesson

3.6 Solving Inequalities Using Addition or Subtraction

7.NS
7.EE

- SWBAT solve inequalities using addition or subtraction.
- SWBAT write a verbal sentence as an equation.
- SWBAT represent situations using algebraic symbols; analyze situations using algebraic symbols.

Oct 19-12:01 PM

Homework

pg. 143 #10-17, 22-31

Oct 20-10:57 AM