Do Now:
Replace each question mark with a < or >

1.) 9 ___?___ 14 <

2.) 4 ___?___ 24 <

3.) 105 ___?___ 103 >

4.) 89 ___?___ 98 <

5.) 21 ___?___ 12 >

< less than

> greater than

Sep 26-8:58 AM

2.1 Integers and Absolute Value

7.NS
7.EE

- SWBAT study integers by comparing and ordering them.
- SWBAT calculate the opposite and the absolute value of integers.

Calculators: No

1 and -1

Sep 26-9:27 AM

Integers - numbers such as ..., -3, -2, -1, 0, 1, 2, 3, ...

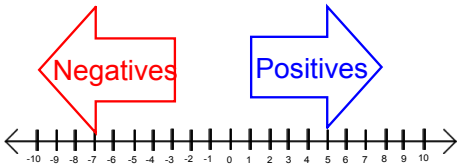
- Do not include decimals or fractions

Negative Integers - integers that are less than 0 such as ..., -3, -2, -1

Positive Integers - integers that are greater than 0 such as 1, 2, 3, ...

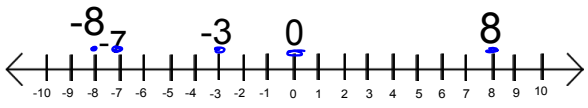
***Note: 0 is neither positive nor negative (neutral)

Sep 18-7:12 AM



Sep 26-9:33 AM

Use a number line to order the integers from least to greatest.



Sep 18-7:24 AM

Without a number line, order the integers from least to greatest.

1. 9, -7, -11, 0, 13, 2

-11, -7, 0, 2, 9, 13

2. -100, 3, 100, 18, -42, 101

-100, -42, 3, 18, 100, 101

Sep 18-3:28 PM

Drag these into the correct column

smaller than -5	between -5 and 0	bigger than 0
-20 -6 -6 -8 -7	-3 -1 -3 -2	10 1 7

Compare integers

Drag these into the correct column

smaller than -5	between -5 and 0	bigger than 0

-8 + 5 -1 + 7 -3 - 7 10 - (-2) -6 +4
-7 - 2 -2+ 0 7 + (-6) -3 + (-40) -6 + 4
-1 +6 -20 + 18

Compare integers

Absolute Value - the distance a number is from zero

- written symbolically as |a|
- distance is always a positive integer

Ex.) State the absolute value of the number.

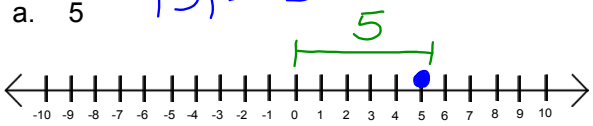
|8| = 8 |-3| = 3 |-8| = 8

|-7| = 7 |0| = 0

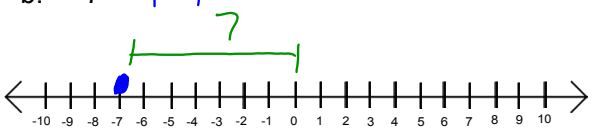
Sep 26-9:33 AM

State the absolute value of the number.

a. 5 |5| = 5



b. -7 |-7| = 7



Sep 18-7:18 AM

Opposites - two numbers have same absolute value but different signs

- always add up to be zero
- always a positive and a negative integer

Ex.) State the opposite of the number.

a. -14 14

b. 3 -3

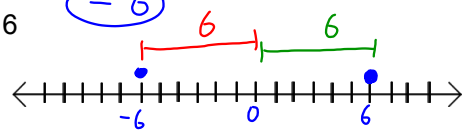
c. 6 -6

d. p -p

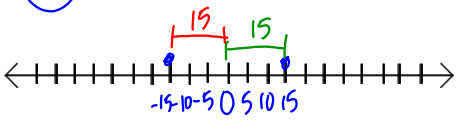
Sep 26-9:54 AM

State the opposite of the number.

a. 6 -6



b. -15 15



Sep 18-7:20 AM

State the absolute value and the opposite of the number.

a. 3 $|3| = 3$ Opposite = -3

b. -19 $|-19| = 19$ Opposite = 19

c. 10.5 $|10.5| = 10.5$ Opposite = -10.5

d. -k $|-k| = k$ Opposite = k

e. 0 $|0| = 0$ Opposite = 0

Sep 18-7:21 AM

Match the integer expression with the verbal expression.

E	1. - | 21 |	A. the opposite of negative twenty-one
D	2. | -21 |	B. the absolute value of twenty-one
C	3. - | -21 |	C. the opposite of the absolute value of negative twenty-one $-\|-21\|$
A	4. - (-21)	D. the absolute value of negative twenty-one
B	5. | 21 |	E. the opposite of the absolute value of twenty-one $-\|21\|$

$-(-21)$

Sep 22-8:45 AM

Simplify the expression.

1. $-|21| = -(21) = -21$ ($(-1)(|21|)$; -21; $(-1)(21)$)
2. $|-21| = 21$
3. $-|-21| = -21$ (-21)
4. $-(-21) = (-1)(-21) = 21$
5. $|21| = 21$

Sep 22-8:56 AM

Exit Pass 2.1

Use the table below. It shows the distances of the runners from the finish line when the winner won the race.

Runner	Distance (ft)
Payton	-8
Fidel	0
Omarian	-14
Jahmire	-22
Jaquaan	-2

a. Who won the race?

b. Who finished farther back, Payton or Jahmire?

c. Arrange the names in order from first place to last place.

Sep 18-7:22 AM

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

Working individually or with a partner, complete the classwork.

pg. 55-56 #8-35 all

Sep 18-7:22 AM

Reflection of Today's Lesson

2.1 Integers and Absolute Value

7.NS

7.EE

- SWBAT study integers by comparing and ordering them. ✓
- SWBAT calculate the opposite and the absolute value of integers. ✓ ✓

Sep 22-8:57 AM

Homework

pg. 55-56 #8-35 all

Sep 18-7:22 AM