

PreAlg Unit 1--Lesson 2-1 Integers and Absolute Value

Lesson Goal: Compare and Order integers. Find absolute value of an expression.

OAS: Review Skills: 6.N.2.1 and 7.N.2.6

Vocabulary:

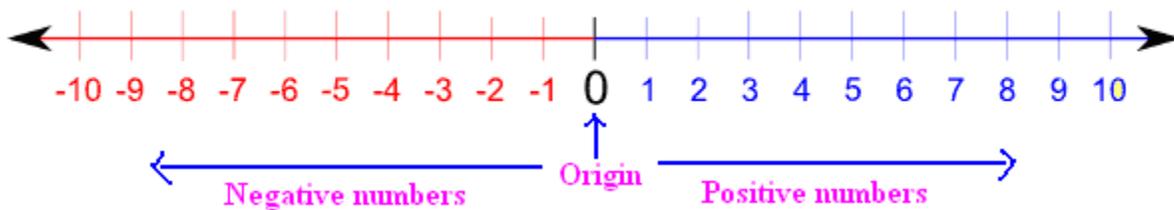
Negative Number: A number less than zero

Positive Number: A number more than zero

Integer: Any whole number and its opposite (ex, 1 and -1)

Inequality: Any mathematical statement that contains $>$ or $<$. Used to compare quantities or numbers.

Absolute Value: The distance a number is from zero.



Negative numbers have values less than zero.

Positive numbers has values greater than zero.

Zero is neither positive nor negative.

Words that mean negative

Below, loss, withdrawal, descend, decrease

Words that mean positive

Above, gain, deposit, ascend, increase

Real life examples of integers---can you give a few??

--gain on yardage in football or loss on yardage

--deposit money into my bank account, or withdrawal money from it

--temperature is above zero or below zero

--scuba divers descend from the surface or ascend from the bottom

--in golf, par is zero, so if you are above par or below par tells your score

Compare integers

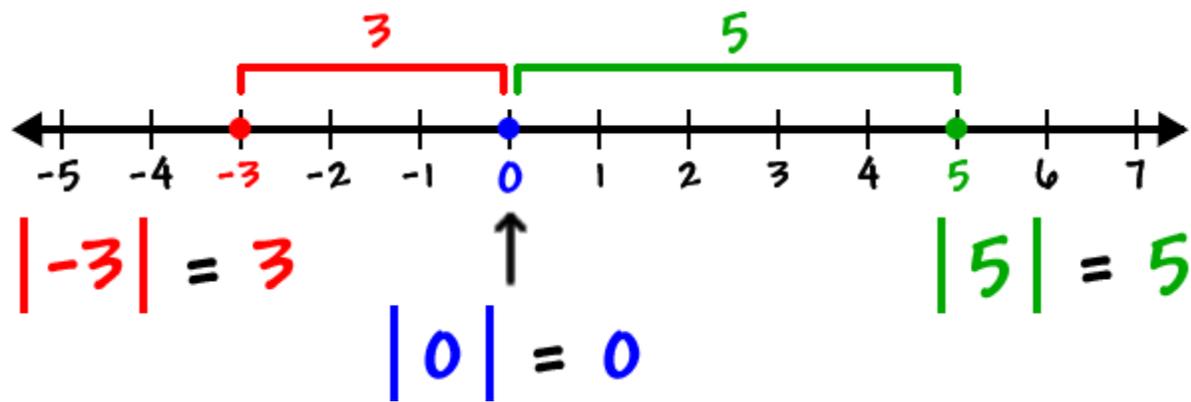
We compare using an inequality but you may know it better as greater than or less than.

Make a true sentence out of -4 and -6.

$$-4 > -6 \quad \text{or} \quad -6 < -4$$

This is true because -6 is MORE NEGATIVE than -4, so therefore it is a smaller number.

Absolute value—def.—the distance from the number to zero on the number line. Absolute value is ALWAYS POSITIVE or zero because you cannot have a negative distance in this case.



The absolute value of -3, shown $|-3|$, is 3 because the distance from -3 to zero is three spaces.

The absolute value of 5, shown $|5|$, is 5 because the distance from 5 to zero is five spaces.

The absolute value of 0, shown $|0|$, is 0 because there is no distance between zero to zero.