

A pink circle containing the text 'INTO MATH' in large white letters and 'LEARN IT FAST' in smaller white letters below it. The circle is set against a yellow square background.

**INTO
MATH**
LEARN IT FAST

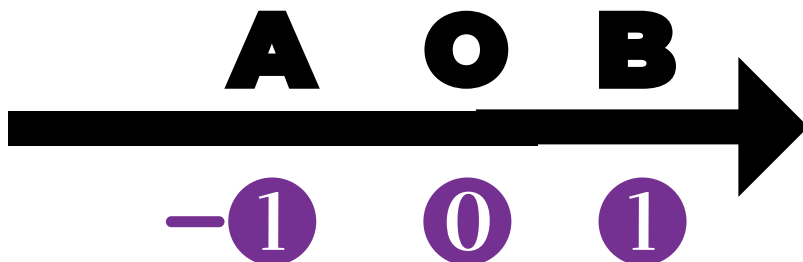
GRADE 7 - LESSON 2

**NUMBER LINE.
NEGATIVE NUMBERS.
COMPARING NUMBERS.**

NUMBER LINE

A straight line with an origin, units and direction is called a NUMBER LINE.

On a straight line label the origin with a letter O. It represents the starting point with a value of "0" (zero). To the left and to the right of this point, label other points based on the number of units (units form a scale).



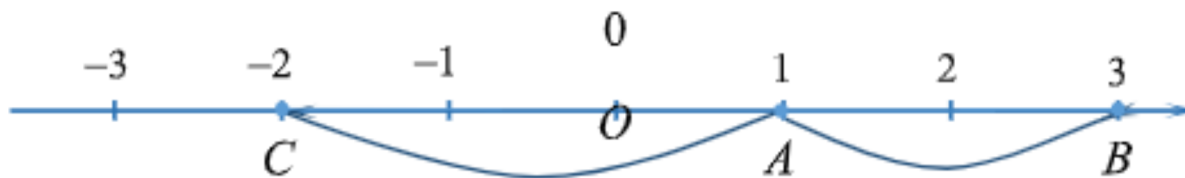
- 1 negative numbers have "-" in front of them
- 0 zero is neither a negative or a positive number
- 1 positive numbers may or many not have a "+" in front of them

PROPERTIES OF A NUMBER LINE



The number that represents the position of a point on a number line is called the **coordinate of a point** and is recorded as $A(2)$ or $B(-6)$.

The number line may be used to not only determine the position of a point, but to move the point across the line. For example, moving the point two units to the right means adding 2 to the given coordinate of the point (+2).



PROPERTIES OF A NUMBER LINE



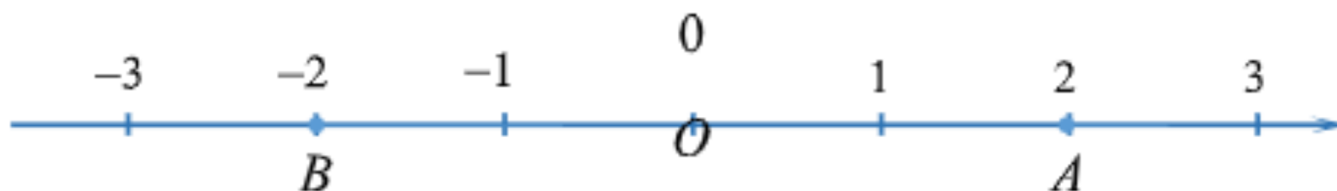
Two numbers that have the same value but opposite signs are called **opposite numbers**.

Two opposite numbers are the same distance from the origin in the opposite directions on a number line.

-3 and 3, -5 and 5, -20 and 20.

0 is opposite to itself.

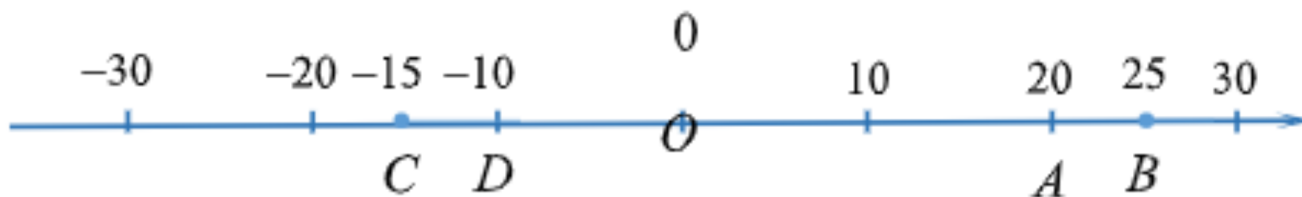
Any number represented by a letter k has an opposite $-k$.
Natural numbers and their opposites are called **whole numbers**.



COMPARING THE NUMBERS



Yesterday, the temperature in the room was 20 degrees Celsius. Today is it 25 degrees Celsius. Yesterday was colder than today. Point A(20) is located to the left of the point B(25) on the number line.



C(-15) is less than D(-10) since it is to the left of D(-10).

Any positive number is greater than 0.

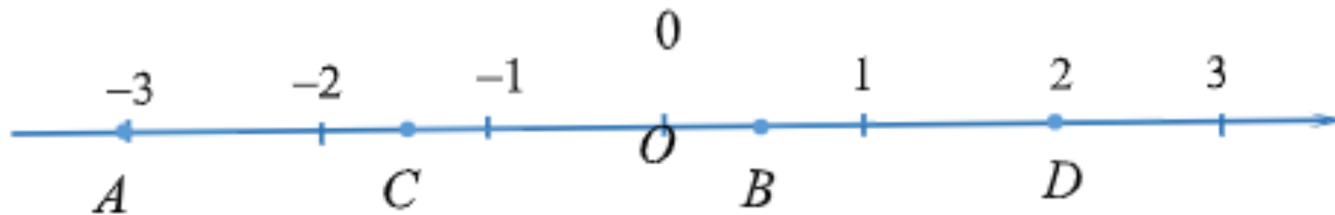
Any negative number is less than 0.

Any negative number is less than any positive number.

TRY IT!



STATE THE COORDINATES OF THE POINTS A, B, C, D and O

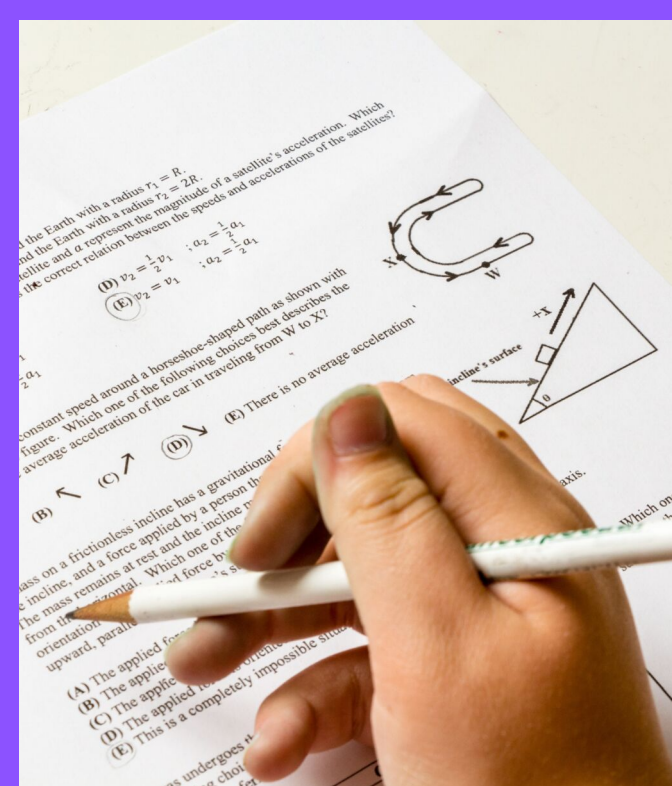


WHICH NUMBERS ARE LOCATED ON THE NUMBER LINE BETWEEN THE FOLLOWING NUMBERS?

-10 and -6

-4 and 0

-3 and 2



CONTINUE TO GRADE 7 LESSON 3!

With questions, requests or suggestions
email us at intomath101@gmail.com

For more resources visit
www.intomath.org

you ROCK!

