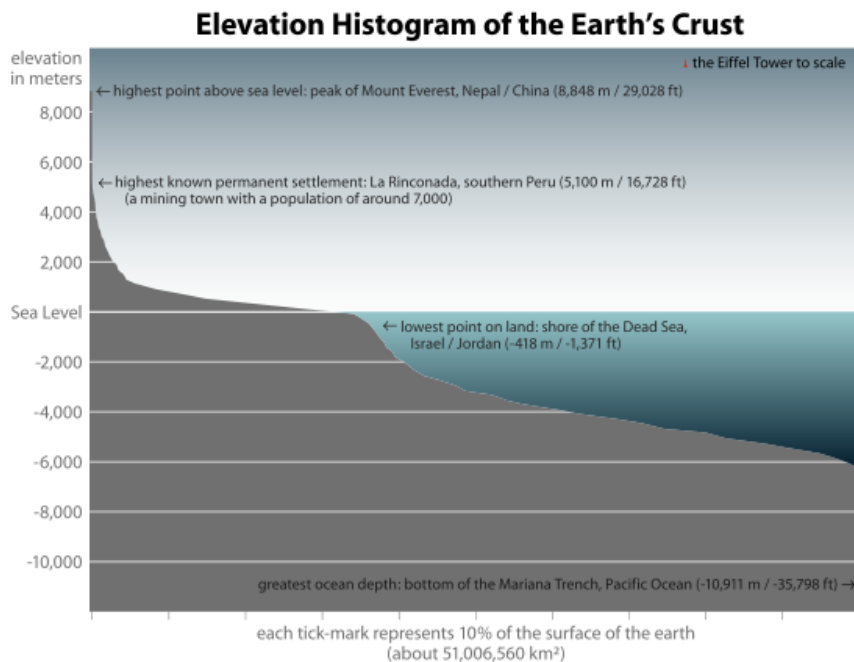


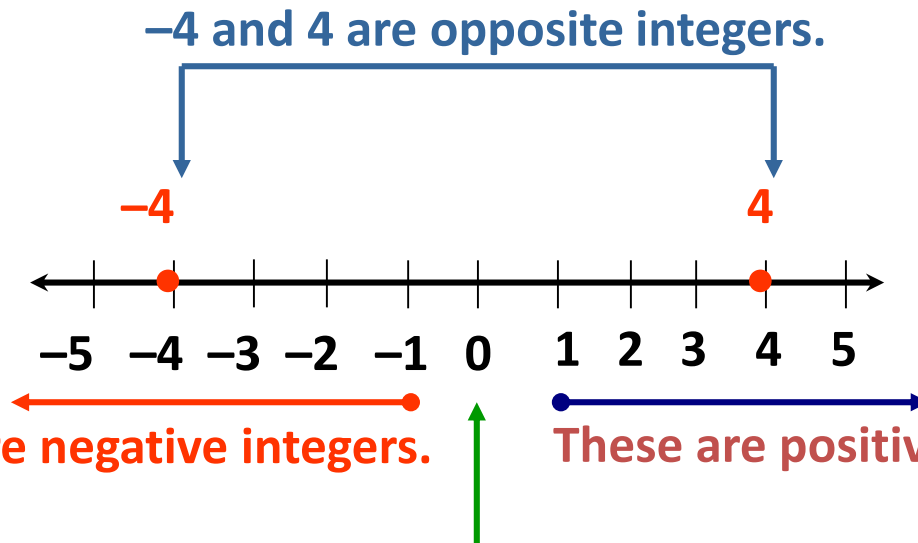


The Important Big Book About Integers

By Mrs. Stevens & Mrs. Profumo, Sept. 2012



The important thing about **INTEGERS** is that they are the set of whole numbers and their **opposites**.



But the most important thing about **INTEGERS** is that they are the set of whole numbers and their **opposites** that are useful for describing elevation, temperature, electrical charges, money earned or owed, and other gains or losses.

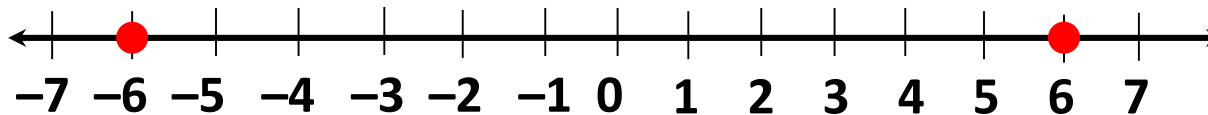
The important thing about **INTEGERS** is that they are the set of whole numbers and their **opposites**.

You can compare money owed and earned with integers.

\$ -6 (owed) “is less than” \$ 6 (earned)

$$\$ -6 < \$ 6$$

It is better to earn \$6 rather than owe \$6.



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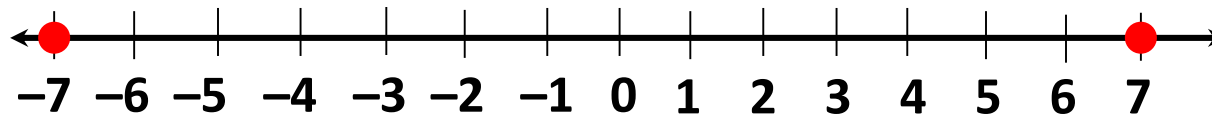
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You can compare temperatures using integers.

Which is lower (colder).... -7 degrees or 7 degrees?

-7 degrees Celsius < 7 degrees Celsius



-7 degrees Celsius “is less than” 7 degrees Celsius

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You can describe and compare elevation with integers:



Mount Everest is 29,028 feet above sea level, the highest point on Earth.



The Dead Sea is 1,371 feet below sea level, the lowest dry point on Earth.

$$\mathbf{-1,371 < +29,028}$$

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Some people say that opposites attract. Opposite electrical charges attract each other in the form of lightning in certain weather conditions.

In math, we call these opposites zero pairs. $+1 + (-1) = 0$



3 Positives Charges + 3 Negative Charges = Zero

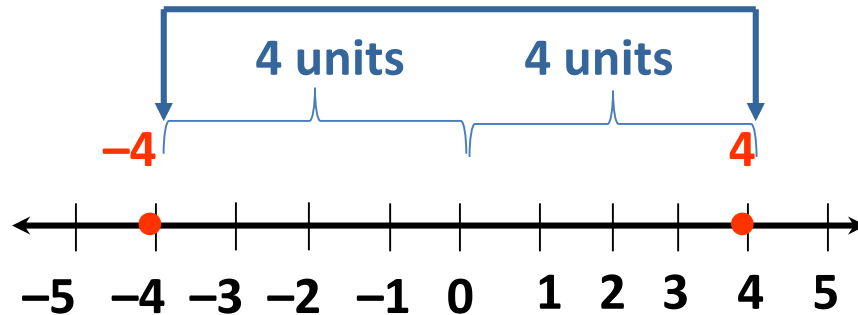
$$3 + (-3) = 0$$

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Opposites have the same distance from zero, and therefore have the same absolute values. $|-4| = |4|$

-4 and 4 are opposite integers and are 4 units from zero.



The absolute value is the positive distance from zero on the number line.

A loss of 4 yards has the same absolute value as a gain of 4 yards.

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Integers can be used to describe a specific location or measurement, such as, “The temperature is -40 degrees Celsius.” Another way to say this is, “The temperature is 40 degrees below zero.”



Integers can also be used to describe a change.

An increase or gain is a positive change, and a decrease or loss is a negative change.

For example, “The temperature dropped 5 degrees” could be represented by the integer -5.

But the most important thing about INTEGERS is....





INTEGERS are the set of whole numbers and their **opposites** that are useful for describing elevation, temperature, electrical charges, money earned or owed, and other gains or losses.

