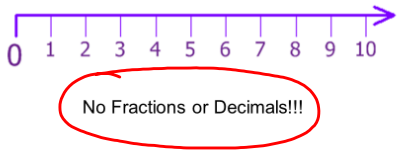


Whole Numbers:
 Are the numbers 0, 1, 2, 3, 4,



No Fractions or Decimals!!!

Modeling Integers
 +
 Absolute value

Aug 29-9:20 AM

Integers: The ENTIRE Number Line

What are Integers?
 The set of all whole numbers and their **opposites** on the number line.

Examples

Integers

0, -14, 11, -9, 1

Non-Integers

-1.33, 2.5, 3/4, 1/2

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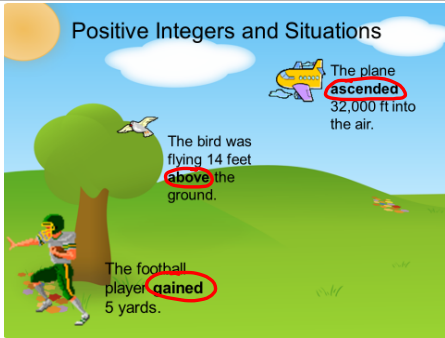
Positive Integers verses Negative Integers

To the right of 0 Increase as you move to the right (get larger) \$4, \$26, \$90	To the left of 0 Decrease as you move to the left (get smaller) -1, -9, -22°
-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

- ★ **Positive integers have the (+) sign in front**
- ★ **Negative Integers have the (-) sign in front**

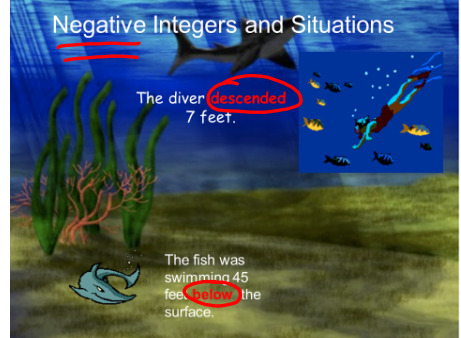
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Positive Integers and Situations



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Negative Integers and Situations



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Describe a quantity to represent each integer

40: 10×4 $39 + 1$ $20 + 20$

5,000: $15,000 \div 3$ 5000×1 1250×4

-10: -5×2 $-5 - 5$

-100: $100 - 200$ $-50 - 50$ $-200 + 100$

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On a map, the direction of north would represent a positive. Then the direction of south would represent a negative.

The direction of west would represent a negative. Then the direction of east would represent a positive.

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Janie starts at the origin and walks 19 steps east.

Jesse starts at the origin and walks 21 steps south.

Holly starts at the origin and walks 19 steps west.

Without regard to direction, who walked the farthest?
Jesse
 Did anyone walk an equal distance?
Yes (Janie + Holly)

Aug 29-10:00 AM

What is Absolute Value?

Absolute Value is the distance a number is away from zero on the number line.

Straight vertical lines around the number represents the absolute value.

$|7| = 7$
 $|-7| = 7$

Numbers that are the same distance away from zero but in opposite directions are called opposites.

$|n|$

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Absolute Value is ALWAYS a POSITIVE number!
 You can never travel a negative distance!

How far are the following numbers from zero???

1) 14 = 14
 2) 1 = 1
 3) -32 = 32

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Find the Absolute Value of Integers

$|4| = 4$ $|-3| = 3$

$|1| = 1$ $|-2| = 2$

Aug 29-10:02 AM

Find the Absolute Values below...

$-|32|$
 In Words: The negative absolute value of 32
 Answer: -32

$-|-32|$
 In Words: The negative absolute value of negative 32.
 Answer: -32

Aug 29-10:02 AM