

Math 7H - Unit 1a

Day 3 - Integers & Absolute Value

Lesson Objectives:

- I can recognize integers and their opposites.
- I can compute the absolute value of an integer.
- I can describe situations in which opposite quantities combine to make 0.

A **negative** number is a number less than zero.

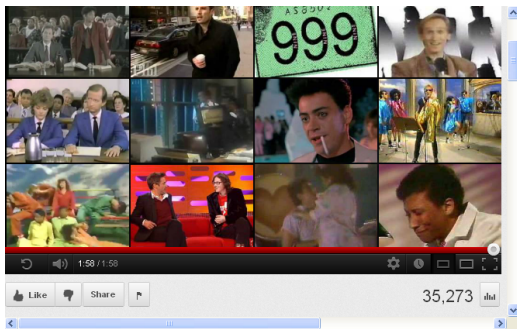
A **positive** number is a number greater than zero.

The set of **integers** includes all positive and negative whole numbers and the number zero.



* How can you keep track of your position on a number line? *

Where do we use integers OUTSIDE of math class?



Any mathematical sentence containing $<$, $>$, \leq , or \geq is called an inequality. An **inequality** compares numbers or quantities.

$<$	$>$	\leq	\geq
less than fewer than	greater than more than exceeds	less than or equal to no more than at most	greater than or equal to no less than at least

Replace the \blacksquare with $<$, $>$, or $=$ to make a true sentence.

a. $-2 \blacksquare 3$ b. $-5 \blacksquare -1$ c. $4 \blacksquare -8$

Order the set of numbers from least to greatest.
{-8, 10, 2, -3, -11, 0, 1}

$\{-11, -8, -3, 0, 1, 2, 10\}$

The **absolute value** of a number is the distance the number is from zero.

$$|4| = 4 \text{ and } |-4| = 4$$

A number and its **opposite** are the same distance from zero.

Simplify each expression.

d. $|6| = 6$ e. $|-9| = 9$ f. $-|3| = -3$ g. $-|-5| = -5$

h. $|3| + |2| = 3 + 2 = 5$ i. $|-12| - 5 = 12 - 5 = 7$ j. $|5 + 3| = |8| = 8$

Homework

1.1 pg 6 #4-36 (evens), 46-50 (all)

* Individual Think Time *



What to do if you get stuck...

- Reread the problem. Did you write it down correctly?
- Reread your notes. Is there a problem similar that we did together in class?
- Find a problem similar in your book. Try this one to see if it helps.
- Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

