

2.1 - The Number Line.docx

September 9, 2021 8:28 AM



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Number Li...



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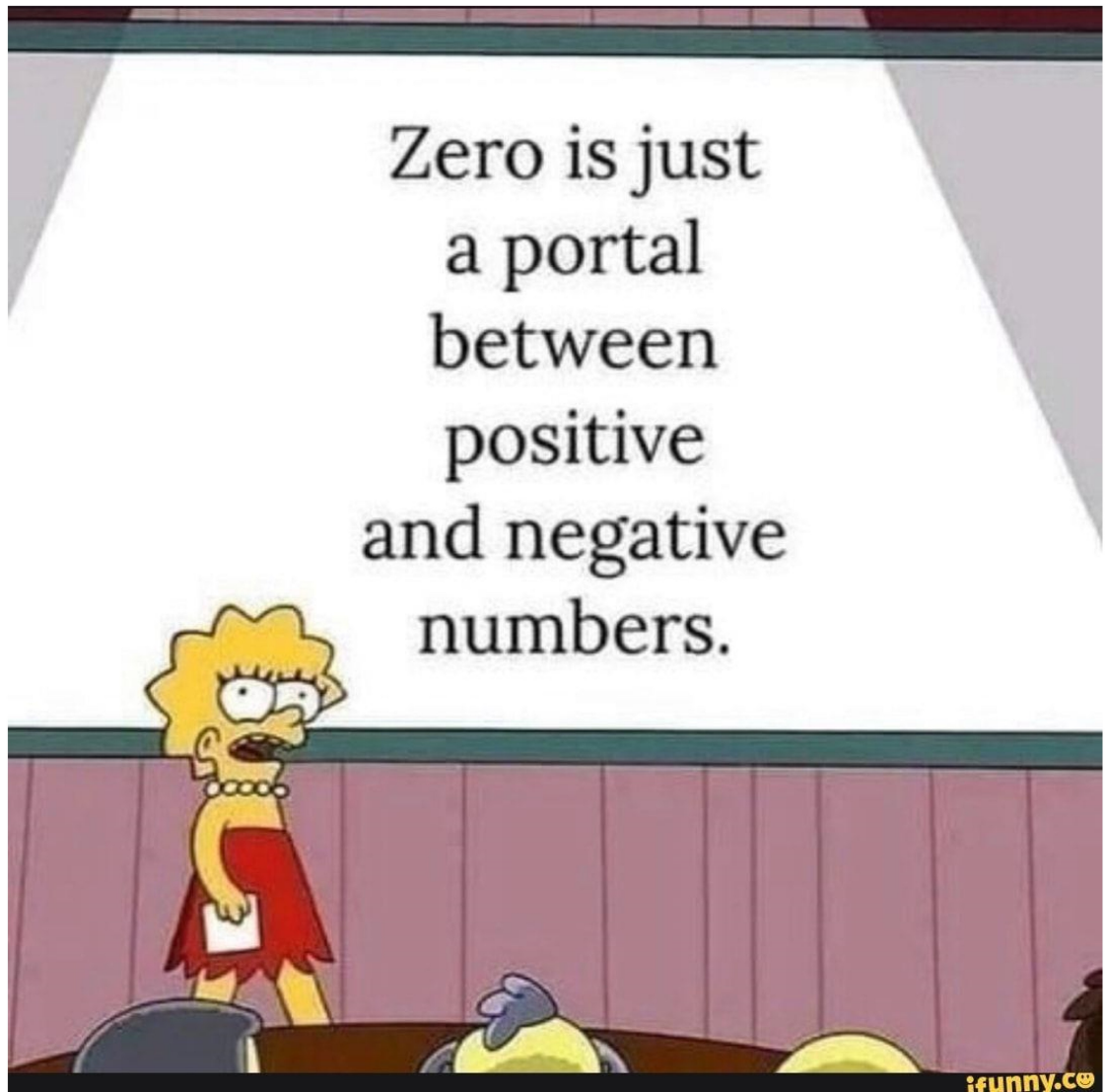
The Number Line

Nobody:

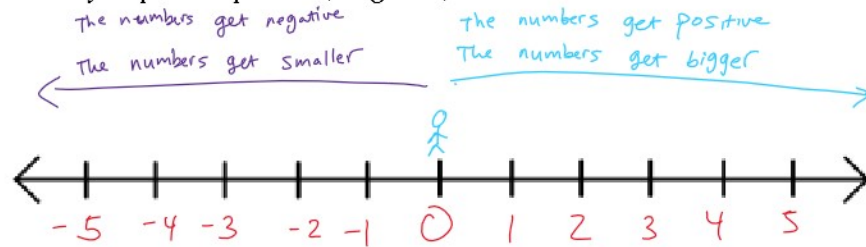
Children when they see negative numbers:



Really?



The EASIEST way to picture positive, negative, and zero is with a number line.



0 is a neutral number, it is neither positive or negative

Integers:

Integers are numbers that are positive, negative, or zero and can be written without fractions or decimals.

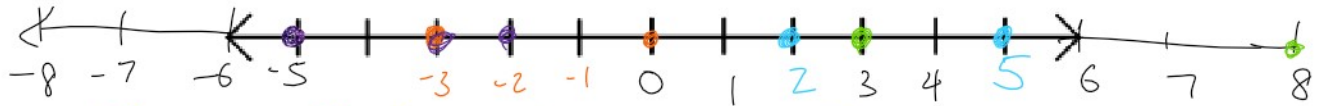
Examples:

-2, 3, 5, -5, 2, -4, 4, -5, 8, -10, 1 $\frac{3}{1} = 3$

Not an integer: 6.9, $\frac{1}{2}$, 1.5, 4.6 $\frac{1}{2} = 1 \div 2 = 0.5$

Practice: Compare the pairs of integers on a number line:

- | | | | | |
|------------|------------|-------------|--------------|--------------|
| a) 5 and 2 | b) 3 and 8 | c) -3 and 0 | d) -2 and -3 | e) -5 and -5 |
|------------|------------|-------------|--------------|--------------|



a) Both are positive
Both integers
Both written in blue
 $5 > 2$
5 is greater than 2
 $2 \leq 5$

b) $3 < 8$

c) $-3 < 0$

d) $-2 > -3$

e) $-5 = -5$

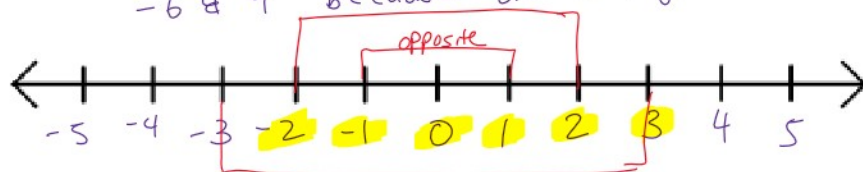
Opposite Integers:

Every integer except zero has an opposite. An opposite integer is the same number except +/-

Examples:

$-27 \neq +27$, $1 \neq -1$, $2 \neq -2$, $-5 \neq 5$, $10 \neq -10$,

Not example: $10 \neq 10$ because they are the same sign
 $1 \neq -2$ because they are different integers
 $-5 \neq 1$ because they are not the same #
 $1 \neq 2$ because they both positive
 $-6 \neq 9$ because one is negative. & #s are not the same



$-3 \neq 3$ has 6 spaces between

Summary

Integer opposites: same number but +/-

Integers are +/- or 0 and not fractions or decimals

For comparing integers we can use $>$, $<$, $=$