

Lesson 1.2

ABSOLUTE VALUE

SOLVING EQUATIONS

Your Name

Mrs. Theo

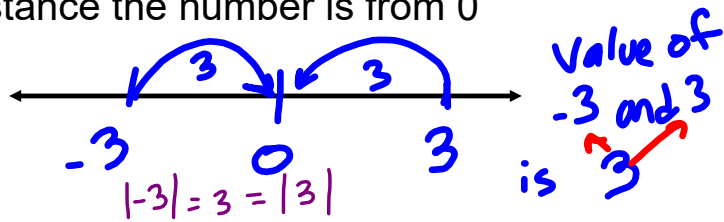
9-22-2020

Notes

Absolute Value

The true value of a number is

the distance the number is from 0



Absolute Value Equations

The distance an expression is from 0

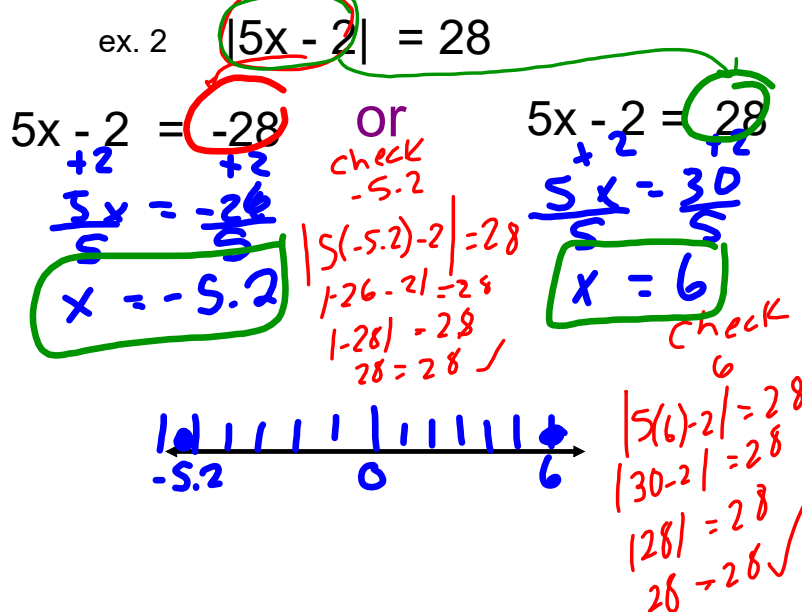
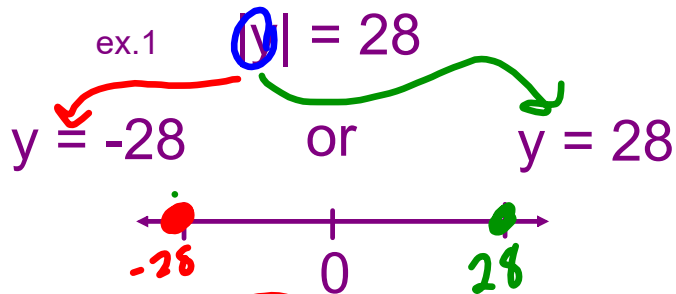
There are two solutions to Absolute Value Equations, seen as single points on a number line

$|5x - 2| = 28$ the expression $5x - 2$ is 28 spaces from 0

Case 1: The value inside the absolute value symbols is negative

Case 2: The value inside the absolute value symbols is positive

* drop bars after cases are written
* Then you can start solving



1. $|2k - 9| = 3$

2. $|5 - 2t| = 7$

3. $|3r + 9| = -6$

4. $|2m - 11| = 1$

.

When an AV
Equation equals
a Negative

$$|-r + 7| = -3$$

There is **no solution** for r !

Absolute Values always produce positive amounts, so there is no possible value for r that would make it produce a negative number like -6 .

Did you get #3 correct?

This equation **has** solutions.

Why? And what are they?

$$|4x + 2| - 13 = -3$$

This equation **has** solutions.

Why? And what are they?

$$-2|4x + 3| + 20 = 6$$