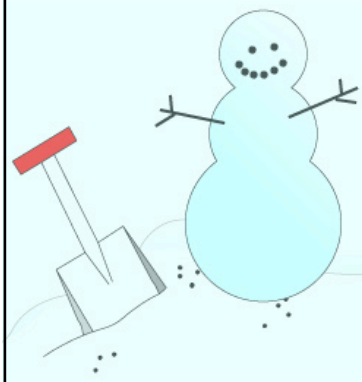
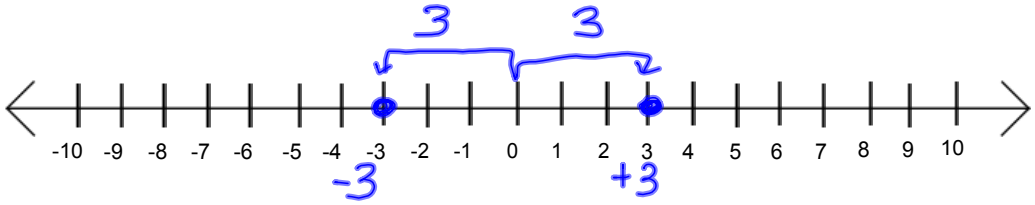
8th Grade
Lessons 69 & 70

- I can define absolute value.
- I can find the absolute value of a number.
- I can add signed numbers.
- I can state and use the rules for addition of signed numbers.





Every positive number has an **opposite** whose graph is the same distance to the left of the origin.

Numbers that have either a plus sign or a minus sign are called **signed numbers**.

Qualities of Signed Numbers:

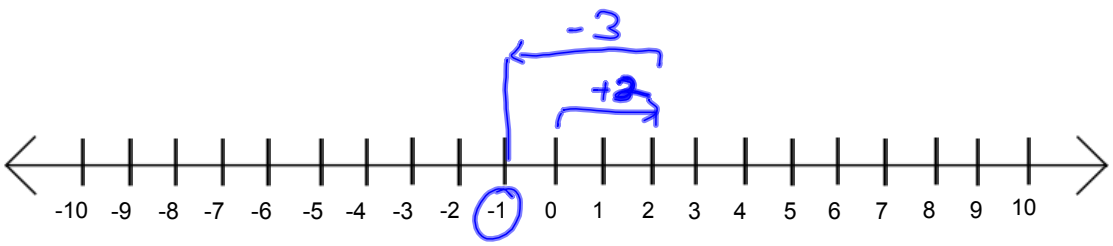
Designated by the + or – sign

The numeral tells how far the graph of the number is from the origin...**absolute value**

↘ distance from 0

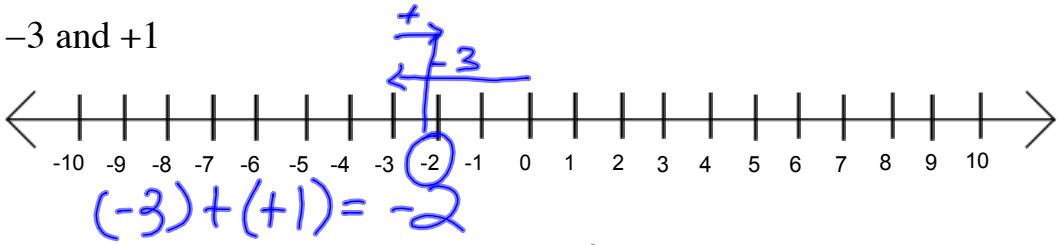
Adding Signed Numbers

Add +2 and –3



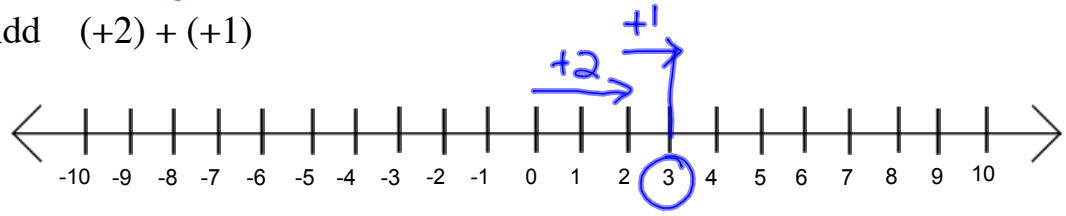
$(+2)+(-3)=-1$

Add –3 and +1

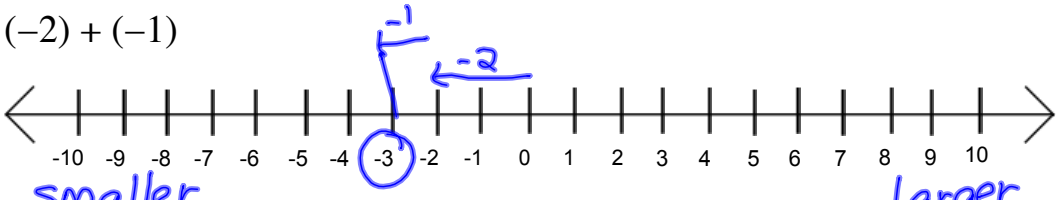


$(-3)+(+1)=-2$

Add (+2) + (+1)



Add (–2) + (–1)



Rules for Addition of Signed Numbers

1. The value of the sum of two numbers of the same sign is the sum of the absolute values of the numbers. The sign of the sum is the same as the sign of the numbers.

same sign → add → sum has same sign

2. The value of the sum of two numbers of opposite signs is the difference of the absolute values of the numbers. The sign of the sum is the same as the sign of the number with the greater absolute value.

different signs → subtract → sum has same sign as larger absolute value

(-3) + (5) = +2

(3) + (-5) = -2

Add these signed numbers mentally....from left to right:

(-4) + (3) + (-5) + (7)

-1 + -5

-6 + 7

1

(-4) + (3) + (-2) + (-6) + (5)

-1 + -2

-3 + -6

-9 + 5

-4

$(-4) + (-3) + (2) + (-5)$

$-7 + 2$

$-5 + -5$

-10

$(-8) + (13) + (-5) + (-8)$

$5 + -5$

$0 + -8$

-8

Assignment

Problem Set 70 #3-5, 7, 8, 10-14, 16-24, 27-29

due Friday

**No items blank or it's incomplete

Test #16 tomorrow