

2.1 Real Numbers

Sept. 25, 2006

- Real Numbers: 7, -7, 0, .25

*** Real Numbers are** $-\frac{15}{41}$
either Positive or
Negative!

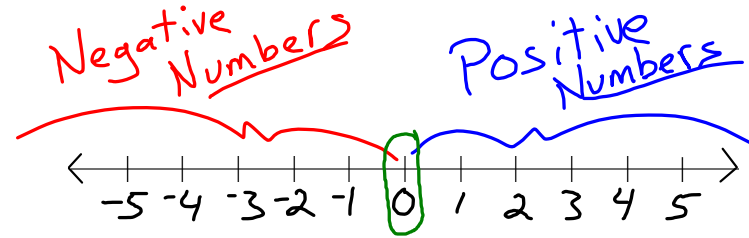
Special Real Numbers

-Integers: $\{\dots, -2, -1, 0, 1, 2, \dots\}$
 $(-\infty, \infty)$

-Whole Numbers: $\{0, 1, 2, \dots\}$

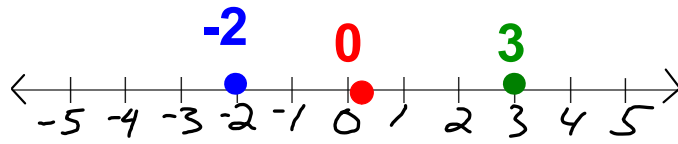
$[0, \infty)$

Real Number Line



Zero: Neither Positive Nor Negative.
It is Neutral

Graph: -2, 0, 3

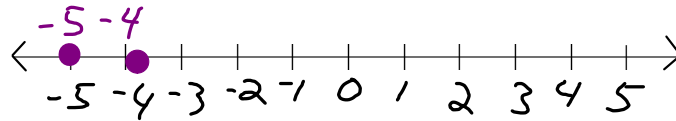


Compare Integers:

*Which is greater than and
which is less than

Compare -4 & -5
Then write 2 inequalities

∴
Means
Therefore



-4 is to the Right of -5

∴ -4 is greater than -5

$$-4 > -5$$

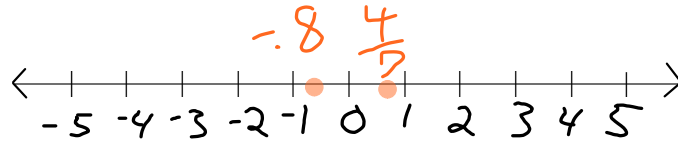
-5 is to the Left of -4

∴ -5 is Less than -4

$$-5 < -4$$

Graph Real Numbers:

Graph: $-.8$ & $\frac{4}{7}$ 0.57142857142857142857142857142857



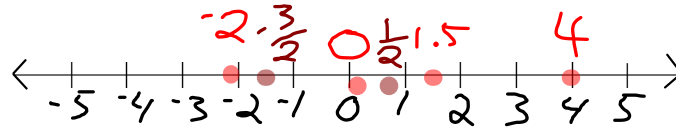
Order Real Numbers:

re-write
as a
dec.

Write the numbers
 $-2, 4, 0, 1.5, \frac{1}{2}, \frac{-3}{2}$
in increasing order

Smallest
to
Largest

$\rightarrow -2, 4, 0, 1.5, .5, -1.5$

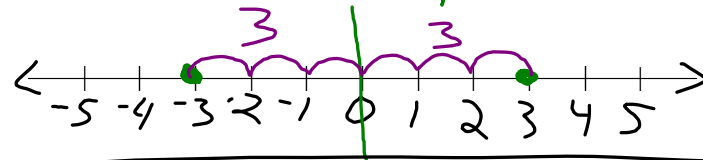


$-2, -\frac{3}{2}, 0, \frac{1}{2}, 1.5, 4$

2.2. Absolute Value

opposites: Two numbers that are the same distance from zero on the # line.

ie: -3 & 3 are opposites



What is the opposite of:

$$-4: \underline{4}$$

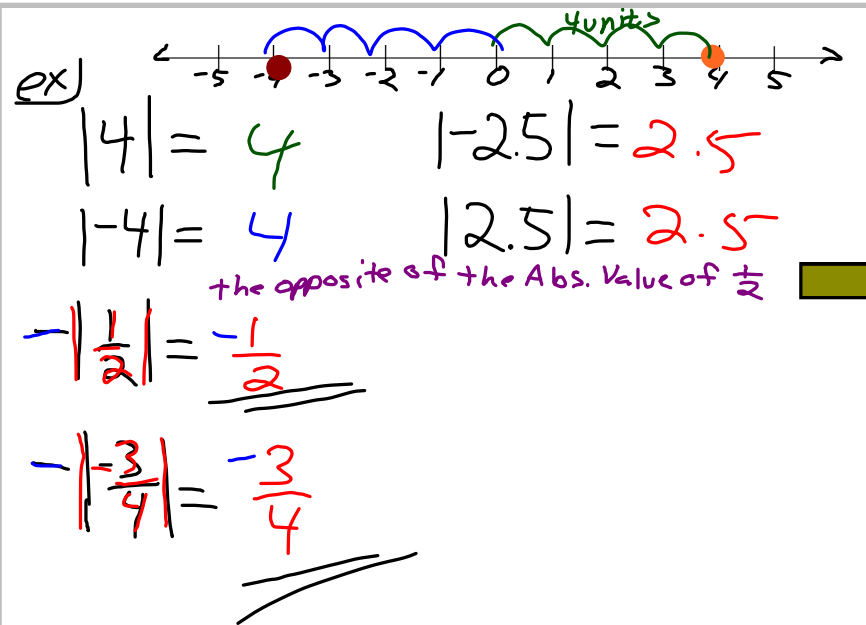
$$-1.5: \underline{1.5}$$

$$.82: \underline{-.82}$$

-absolute value: a number's distance from zero on the # line

We use the $| |$ symbol to represent Abs. Value.

ie: $|-5| \Rightarrow$ Absolute Value of -5



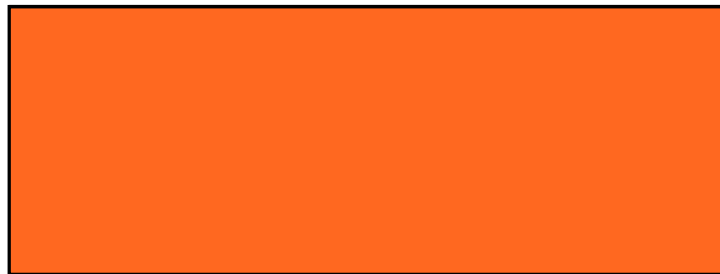
Use Mental Math to Solve:

$$|x| = 7$$

What Numbers ^{have} ~~has~~ a distance from zero that is 7?

$x = 7$ or $x = -7$
are

they both have a distance of "7" away from zero.



O. T. L.

1. Pg. 68-69: 1, 2, 15-29 (o), 31-34 (a), 35-49 (o), 55-59 (a)

Use ex 5 on pg 67
for help if needed

#'s 45, 47, 49, Show me
the number line for
each

② Pg 74: 1-15 (a)
17-39 (o)

③ Turn in the C.R.O.
on ~~Back Table~~
3 Shelf