Absolute Value:

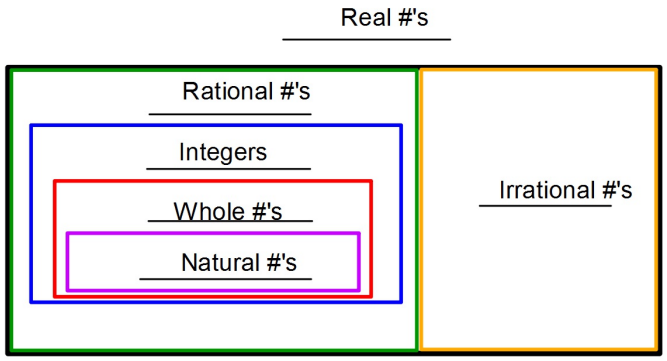
Distance from zero on a number line.

Absolute value of a number gives a positive result because DISTANCE IS ALWAYS A POSITIVE QUANTITY.

$$|x| = \begin{cases} x \text{ if } x \geq 0 \\ -x \text{ if } x < 0 \end{cases}$$

The absolute value of a number is itself if the number is zero or positive

The absolute value of a number is its opposite if the number is negative.



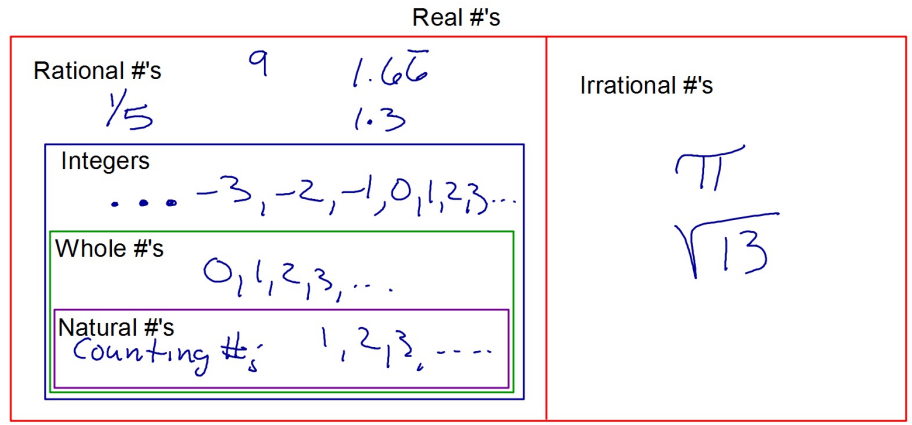
Real Numbers

Rational Numbers

- Any number that can be written as a fraction.
- All terminating decimals.
- All repeating decimals.

Irrational Numbers

- Any number that can't be written as a fraction.
- Non-terminating Non-repeating decimals.


Real #'s
Rational #'s
9
1.66
1/5
1.3
Integers
. . . -3, -2, -1, 0, 1, 2, 3 . . .
Whole #'s
0, 1, 2, 3, . . .
Natural #'s
Counting #'s: 1, 2, 3, . . .
Irrational #'s
π
√13