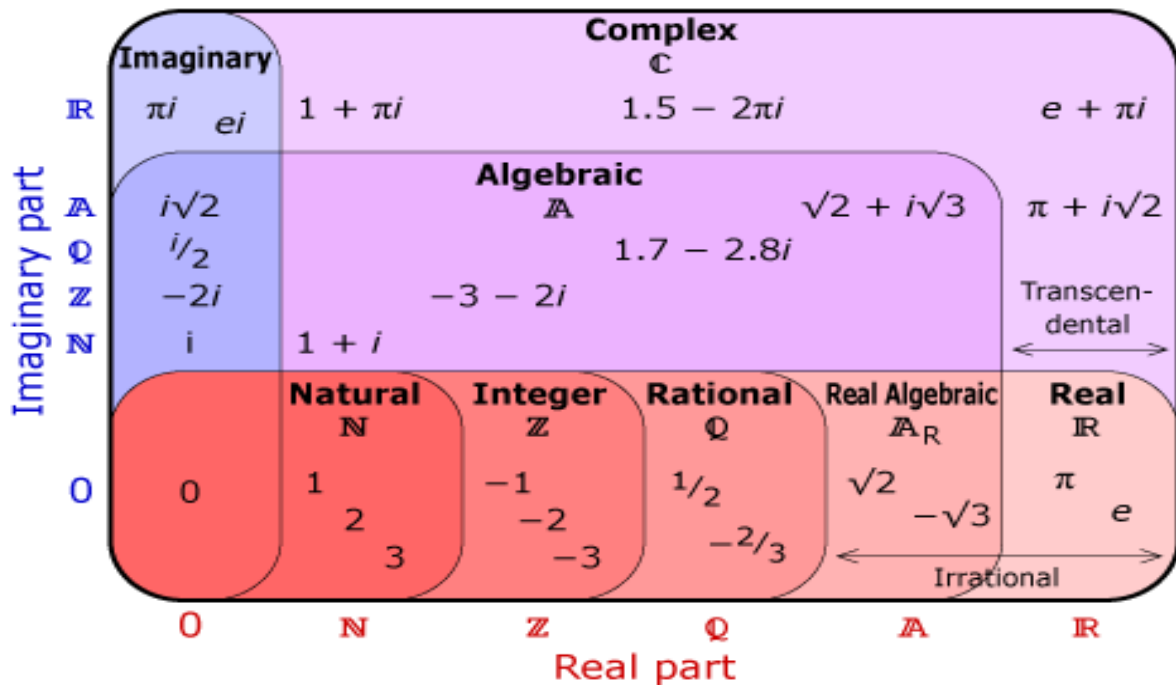
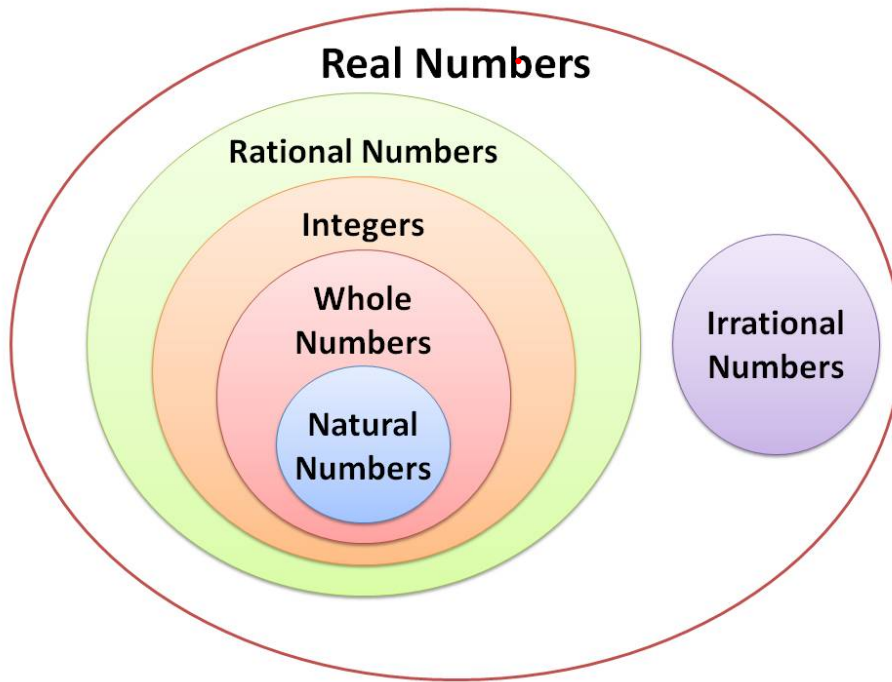


Section P.1: Real Numbers and Algebraic Expressions



$$s + si$$

Ex. Where do the following numbers fall?

-17

\mathbb{R}
rational
integer

pi

irrational
 \mathbb{R}

Know what these are!!!

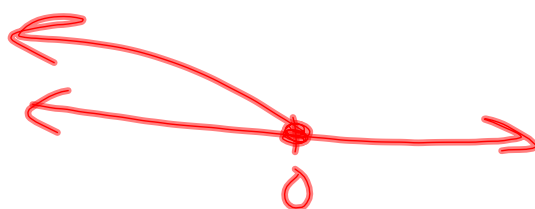
$<$ - less than

$>$ - greater than

\leq - less than = to

\geq - greater than = to

$x \leq 0$



Absolute Value: Find the distance from zero.
properties on pg.5

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

$$\begin{array}{cc} |\sqrt{3}-1| & |2-\pi| \\ \sqrt{3}-1 & -(2-\pi) \\ & -2+\pi \end{array}$$

$$|ab| = |a||b|$$

$$\left| \frac{a}{b} \right| = \frac{|a|}{|b|}$$

Distance between points(not 2D)
- use absolute value

Find the distance between -5 and 3

$$\begin{array}{l} |-5-3| \\ |-8| = 8 \text{ units} \end{array}$$

Algebraic Expressions:

NO EQUAL SIGN

REMEMBER:

PEMDAS

$$2 + 3 - 5 + 2 - 3$$

Evaluate: $(25t^2 + 125t) \div (t^2 + 1), t = 3$

$$\frac{25(\cancel{3})^2 + 125(\cancel{3})}{(\cancel{3})^2 + 1}$$

$$\frac{225 + 375}{10} = \frac{600}{10} = \boxed{60}$$

Page 8 in the text has all the properties of real numbers. You should know them but might be worth another look.

$$a(b+c) = ab+ac$$

$$a + (-a) = 0$$

$$3 \cdot \frac{1}{3} = 1$$

$$a\left(\frac{1}{a}\right) = 1$$

$$3\left(\frac{1}{3}\right) = 1$$

Simplify: $6(2x - 4y) - 10(4x + 3y)$

$$12x - 24y - 40x - 30y$$

$$-28x - 54y$$

$$-54y - 28x$$

$$-y54 - 28x$$

$$y=2$$
$$x=3$$

Suggested Homework:

pg. 11 #'s 2,10,14,22,

24,26,30,32,42,48,64,74