Homework: Section 1.1 on Pg. 6; 1-3all – Answers on Pg. 361

Natural Numbers:
Counting numbers

Examples:
1, 2, 3, 4, 5...

Whole Numbers:
Counting numbers starting at 0

Examples:
0, 1, 2, 3, 4, ...

Integers:
positive and negative whole numbers

Examples:
..., -3, -2, -1, 0, 1, 2, 3, 4, ...

Rational Numbers:
Numbers that can be written as fractions (ratios) OR any repeating/terminating decimal.

Repeating: $1.547547547... = 1.\overline{547}$

Terminating: -37.582 (stops!)

Examples:

$\frac{2}{3}$, $-\frac{18}{7}$, $0.07272... = 0.0\overline{72}$

$\sqrt{0} = 0$

$-5 = \frac{-5}{1}$, $\sqrt{4} = 2$, $0 = \frac{0}{1}$

Irrational Numbers:
not Can't be written as fractions OR Can't be written as repeating/terminating decimals

Examples:

$\sqrt{57} = 7.5849834435...$

$\pi = 3.1415926535...$

Real Numbers:
Natural, whole, integer, rational, and irrational numbers!

NOT Real Numbers:

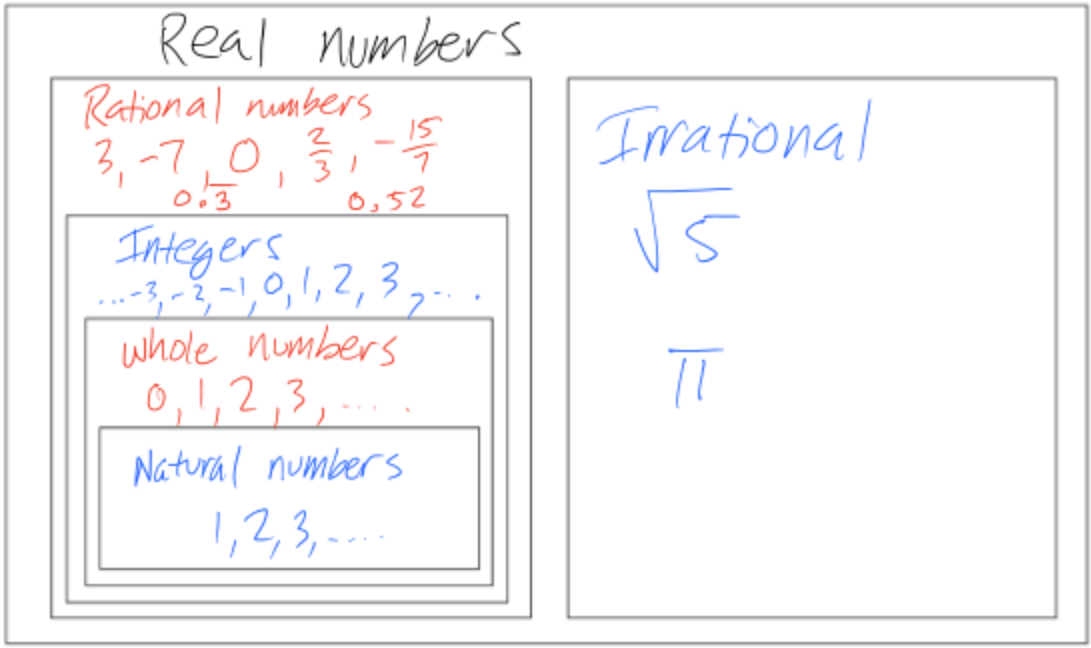
$\sqrt{-1}$, $\sqrt{-100}$

Square root of negative numbers

NOTE: There are an infinite number of...

- natural numbers
- integers
- whole numbers
- irrational numbers
- rational numbers
- real numbers

Vsauce Infinity



not real $\sqrt{-5}$