Real Numbers

Rational $\frac{5}{3}$ 0.63 $0.0\overline{12}$

Integers $\{\dots, -2, -1, 0, 1, 2, \dots\}$

Whole $\{0, 1, 2, 3, \dots\}$

Natural $\{1, 2, 3, \dots\}$

Irrational

$\sqrt{3}$ π $0.10010001\dots$
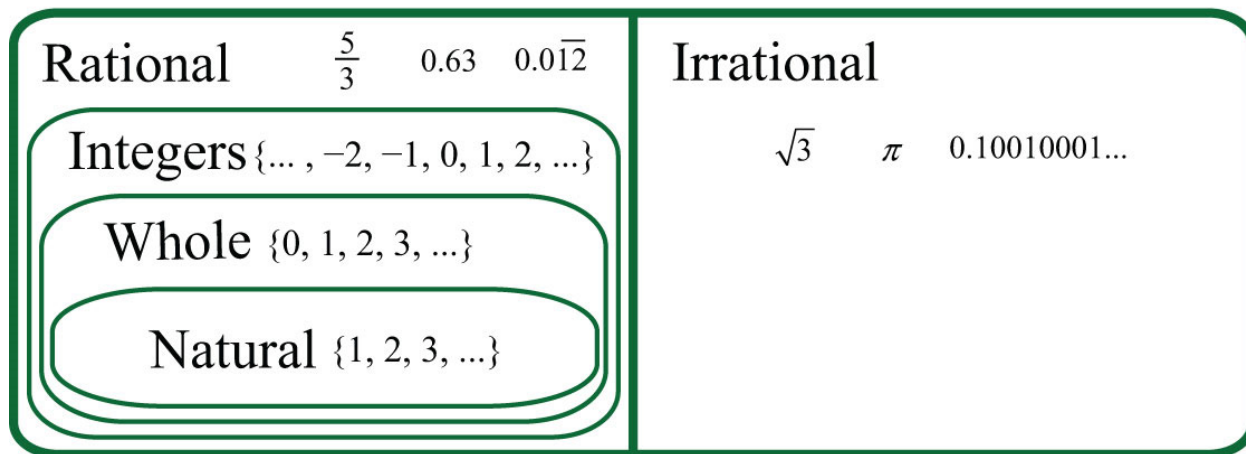
NOTES: Numbers that we study in 8th Grade have to fall into 2 categories, Real or Not a Real Number.

Most of our numbers are Real Numbers, which are Rational or Irrational, cannot be both!

A) Rational Numbers

-Rational Numbers are fractions or decimals that terminate or have a pattern

-Integers are positive and negative whole numbers and include 0

- Whole numbers are 0, plus all positive whole numbers, no negatives allowed

-Natural/Counting number are positive whole numbers 1 and higher, no 0, no negatives

B) Irrational Numbers

-Irrational numbers are like pi, it is a number that cannot be written as a fraction

-Usually a never ending decimal that does not have a pattern and does not repeat