**Rational Numbers**

A rational number is a number that can be written as a ratio. That means it can be written as a fraction, in which both the numerator (the number on top) and the denominator (the number on the bottom) are whole numbers.

* The number 8 is a rational number because it can be written as the fraction 8/1.
* Likewise, 3/4 is a rational number because it can be written as a fraction.
* Even a big, clunky fraction like 7,324,908/56,003,492 is rational, simply because it can be written as a fraction.

Every whole number is a rational number, because any whole number can be written as a fraction. For example, 4 can be written as 4/1, 65 can be written as 65/1, and 3,867 can be written as 3,867/1.

\*\*\*\*Rational numbers are whole numbers, integers (positive and negative whole numbers), fractions, terminating decimals, repeating decimals, perfect squares, perfect cubes

### Irrational Numbers

All numbers that are not rational are considered irrational. An irrational number can be written as a decimal, but not as a fraction.

An irrational number has endless non-repeating digits to the right of the decimal point. Here are some irrational numbers:

π = 3.141592…

square root of 2= 1.414213… (non-perfect squares and cubes)

Although irrational numbers are not often used in daily life, they do exist on the number line. In fact, between 0 and 1 on the number line, there are an infinite number of irrational numbers!

\*\*\*\*Irrational numbers are non-repeating non-terminating decimals, pi, non-perfect squares and cubes