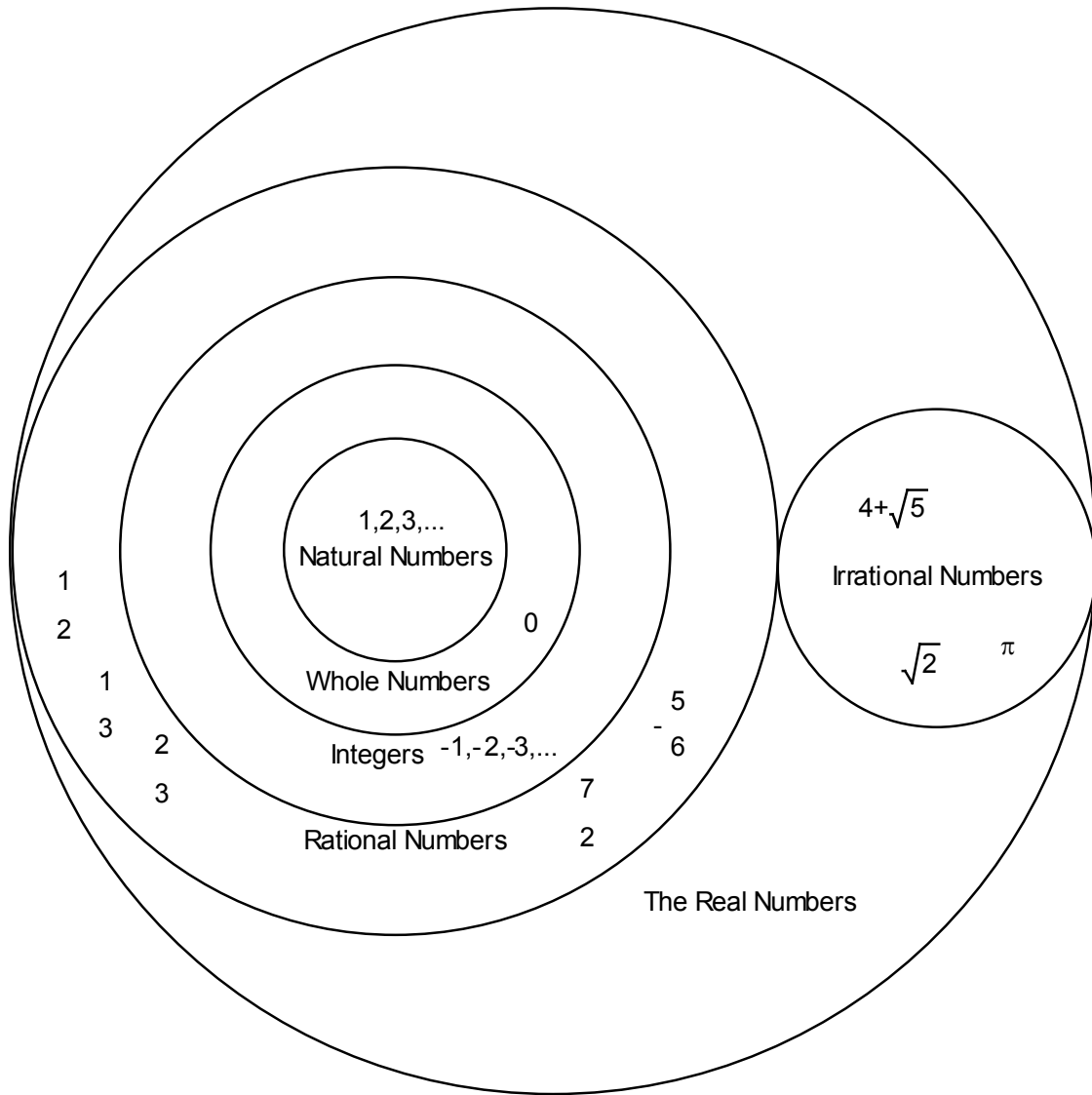


Classification of Numbers

So far we've only been dealing with the **Natural** numbers. It's good to know how to classify numbers so we will look at a Venn Diagram for numbers.



Absolute Value

The Absolute Value of a number can be calculated as follows.

If the number is greater than or equal to zero, the absolute value of the number is the number.

If the number is less than zero, multiply the number by -1.

Example:

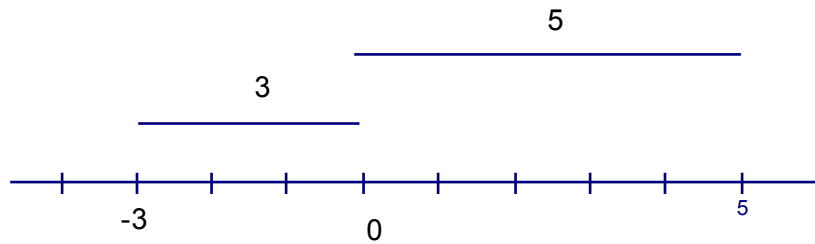
$$|5| = 5$$

$$|0| = 0$$

$$|-3| = 3$$

Interpretation of Absolute Value

If you think of number on a number line, the absolute value is distance of that number from zero.



Basic Geometry Formulas

There are some basic formulas from geometry that you should know.

Area of a Triangle

$$A = \frac{\textit{base} \cdot \textit{height}}{2}$$

Area of a Rectangle, a Parallelogram, a Square or a Rhombus

$$A = \textit{base} \cdot \textit{height}$$

Area of a Circle

$$A = \pi (\textit{radius})^2$$

Volume of a parallelepiped (a rectangular box)

$$V = \textit{base} \cdot \textit{width} \cdot \textit{height}$$

Volume of a Pyramid or a Cone

$$V = \frac{\textit{area_base} \cdot \textit{height}}{3}$$

Volume of a Cylinder

$$V = \pi (\textit{radius})^2 \cdot \textit{height}$$

Volume of a sphere

$$V = \frac{4\pi (\textit{radius})^3}{3}$$