

# Real Numbers

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# 1 Types of Numbers

## 1.1 Whole Numbers

$(0, 1, 2, 3, 4)$

## 1.2 Natural Numbers

These are also known as "counting numbers".

$(1, 2, 3, 4...)$

## 1.3 Integers

Any whole number that does not have decimal or fractional part.

$(-3, -2, -1, 0, 1, 2, 3, 4...)$

## 1.4 Even Numbers

These numbers can be easily divisible by two.

$(2, 4, 6, 8...)$

## 1.5 Odd numbers

Number NOT easily divisible by two.

$(1, 3, 5, 7...)$

## 1.6 Prime Number

Numbers that are not evenly divisible by themselves or one.<sup>1</sup>

$(2, 3, 5, 7, 11, 13, 17, 19, 23...)$

## 1.7 Irrational Number

A decimal number that goes on forever and does not repeat.<sup>2</sup>

$(3.1415926..., \sqrt{2})$

## 1.8 Rational Number

The opposite of an irrational number. These number will eventually end or start repeating.

$(3.5, 3.33333...)$

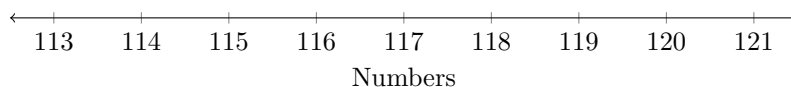
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<sup>1</sup>Two is the only even prime number.

<sup>2</sup> $\pi$  is probably the most famous irrational number.

## 1.9 Number Line

All real numbers can be found on the number line.



## 1.10 Examples of real Numbers

$$\sqrt{81} = 9$$

$$\sqrt{49} = 7$$

$$\sqrt{25} = 5$$

$$\sqrt{\textit{NegativeNumber}} = \textit{NOTREAL}$$

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## 2 Word Problems

### 2.1 Adding

These are words that you will want to recognize as addition when reading a Math problem.

- Add
- Sum
- Total
- Increase
- Plus

### 2.2 Subtracting

Same as addition, these are words to recognize when reading a word problem dealing with subtraction.

- Subtract
- Minus

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<sup>3</sup>Imaginary Numbers are for another lesson.

- Decrease
- Take Away
- Less than
- from

## **2.3 Multiply**

Words that point to multiplication.

- Product
- Times
- Of

## **2.4 Dividing**

Words to be recognized when one needs to divide.

- Divisible
- Divide
- Division
- Quotient
- Into
- Per