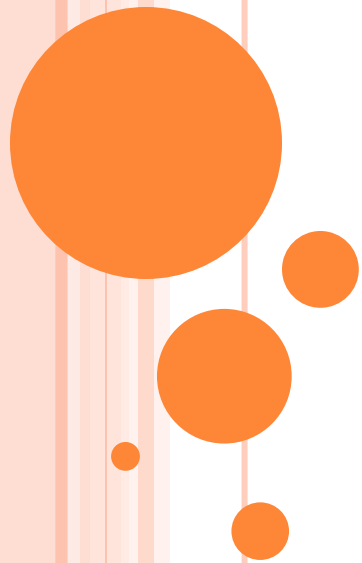
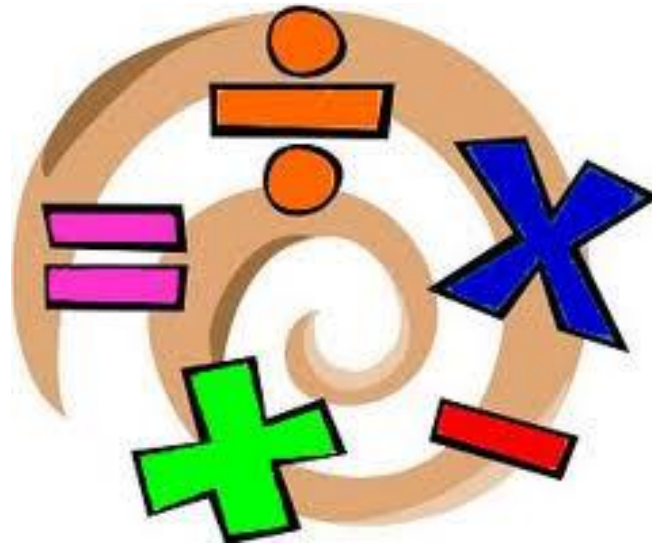


**NUMBERS.
OPERATIONS WITH NUMBERS.**



How many operations with numbers do you know?



ADDITION

Addition:

$$8 + 3 = 11$$

Diagram illustrating the addition of 8 and 3 to get 11. The number 8 is labeled as an Addend (blue arrow), the number 3 is labeled as an Addend (red arrow), and the result 11 is labeled as the Sum (green arrow).



SUBTRACTION

$$\begin{array}{ccc} 8 & - & 3 & = & 5 \\ \text{Minuend} & & \text{Subtrahend} & & \text{Difference} \end{array}$$

The diagram illustrates the subtraction equation $8 - 3 = 5$. The number 8 is labeled as the Minuend (in blue), 3 as the Subtrahend (in red), and 5 as the Difference (in green). A blue arrow points from the label 'Minuend' to the number 8. A red arrow points from the label 'Subtrahend' to the number 3. A green arrow points from the label 'Difference' to the number 5.



MULTIPLICATION

Multiplication:

$$6 \times 3 = 18$$

Factor (or Multiplier) Factor (or Multiplicand) Product

The diagram shows the equation 6 x 3 = 18. The number 6 is blue, 3 is red, and 18 is green. A blue arrow points from the label 'Factor (or Multiplier)' to the number 6. A red arrow points from the label 'Factor (or Multiplicand)' to the number 3. A green arrow points from the label 'Product' to the number 18.



DIVISION

Division

Dividend

Quotient



$$7 \div 2 = 3 \text{ rem. } 1$$

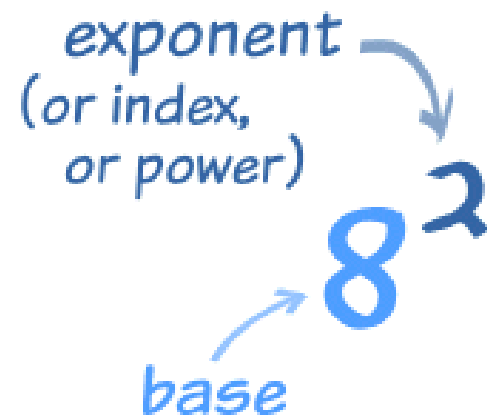


Divisor

Remainder



POWER



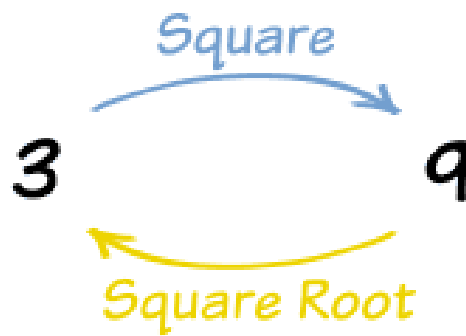
this means "squared"

$$4^2 = 16$$

The equation $4^2 = 16$ is shown. A yellow arrow points from the text "this means 'squared'" to the exponent "2" in the expression 4^2 .



SQUARE ROOT



A square root of 9 is 3.



The square root symbol is called the *radical*.



LOGARITHM

How many of *one number* do we multiply to get *another number*?

$$\underbrace{2 \times 2 \times 2}_3 = 8 \quad \leftrightarrow \quad \log_2(8) = 3$$

← base

The number we are multiplying is called the "base", so we would say:
"the logarithm of 8 with base 2 is 3"
or "log base 2 of 8 is 3"
or "the base-2 log of 8 is 3"



FRACTION

We call the top number the **Numerator**, it is the number of parts you have.

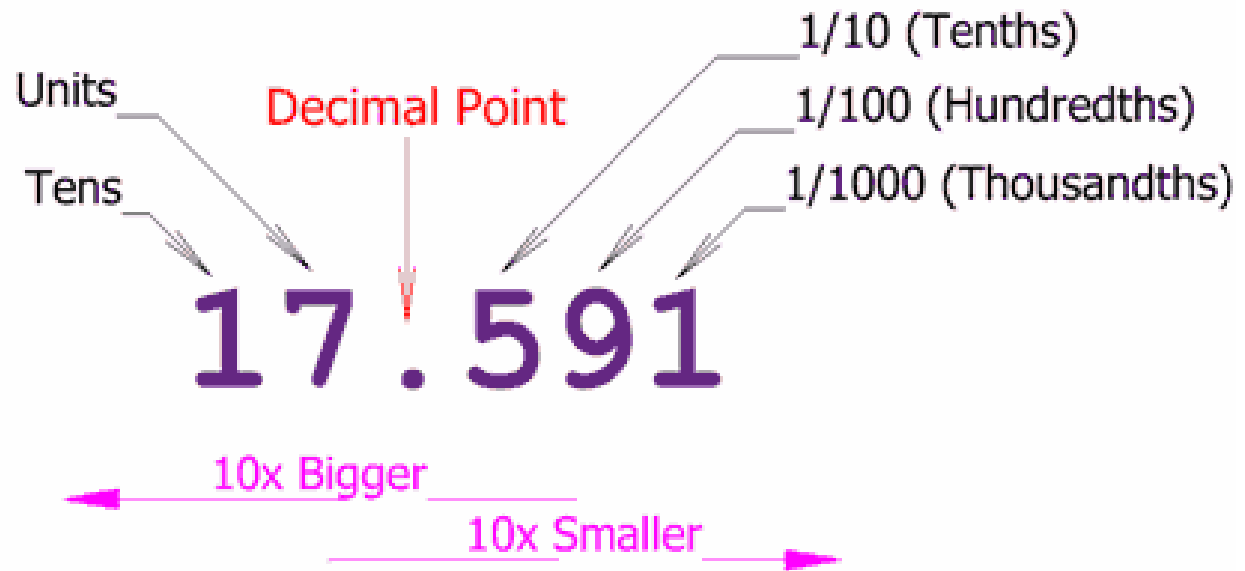
We call the bottom number the **Denominator**, it is the number of parts the whole is divided into.

$$\begin{array}{l} 4 \leftarrow \text{numerator} \\ \hline 5 \leftarrow \text{denominator} \end{array}$$

← fraction bar



DECIMAL NUMBERS



Seventeen point Five Nine One

