## Basic Math Functions

## Math Symbols

```
+ plus, add
- minus, subtract
x multiplied by, multiply
    divided by, divide
    equal to
# not equal to
> is greater than
< is less than
\varnothing or {} empty set
```

+ plus, add
- minus, subtract
x multiplied by, multiply
divided by, divide
equal to
$\neq$ not equal to
$>$ is greater than
$\varnothing$ or \{\} empty set
$\geq$ is greater than or equal to
$\leq$ is less than or equal to
: is compared to, ratio
$\infty$ infinity
$\angle$ angle
$\llcorner$ right angle
$\perp$ perpendicular
II parallel to
$\sqrt{ }{ }^{-}$square root


## Addition and Subtraction

## 1. Addition

Combining two or more numbers is called addition. The term for addition is plus (+). The numbers that are combined are called addends, and together they form a new number called a sum.

## 2. Subtraction

"Taking away" one or more numbers from another number is called subtraction. The term for subtraction is minus $(-)$. The new number left after subtracting is called a remainder or difference.

## Factors and Multiples

## 1. Factors

Factors are two numbers that, when multiplied together, form a new number called a product. Every number except 1 has at least two factors: 1 and itself.
Composite numbers have more than two factors.

## 2. The Greatest Common Factor

Common factors are numbers that are factors of two or more numbers. The common factor of two numbers with the greatest value is called the greatest common factor. For example, 2, 3, 4, 6, and 12 are common factors of 12 and 36 , but 12 is the greatest common factor.

## 3. Multiples

Find the multiples of a number by multiplying it by other whole numbers. The multiples of 3 are $0,3,6,9,12$, and so on.

## References:

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## Multiplication and Division

## 1. Multiplication

Multiplication is a quick form of addition. By multiplying numbers together, you are really adding a series of one number to itself. Numbers in the beginning of a multiplication equation are called multiplicands and multipliers. A multiplication equation results in a product.

MULTIPLICATION TABLE

| $\mathbf{X}$ | $\mathbf{1}$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

## 2. Division

Division is the process of finding out how many times one number, the divisor, will fit into another number, the dividend. The division equation results in a quotient. Think of division as a series of repeated subtractions. Many numbers do not fit evenly into other numbers. They are not evenly divisible by these numbers, and the number left over is called the remainder.

