

Math tasks and notes



Math 1

Is the finalResult 48? Yes, well done!

The final result is odd. Hrm.

```
let finalResult;  
let evenOddResult;  
// Add your code here  
  
var a= 1;  
var b= 3;  
var c= 3;  
var d= 15;  
  
e=a+b  
f=d-c  
  
finalResult=e*f
```

Reset

Math 2

Your finalResult is 4633.33

finalNumber is a number type. Well done!

```
// Final result should be 10.42
// Add/update your code here

let result = 7 + 13 / 9 + 7;
let result2 = 100 / 2 * 6;

result = result * result2

finalResult = result.toFixed(2);

finalNumber = finalResult

// Don't edit the code below here!
section.innerHTML = ' ';
```

Reset

Math 3

False — of course an elephant is heavier than a mouse!

True — an ostrich is indeed taller than a duck!

False — the passwords do not match; please check them

```
// Statement 1: The elephant weights less than the mouse
let eleWeight = 1000;
let mouseWeight = 2;

// Statement 2: The Ostrich is taller than the duck
let ostrichHeight = 2;
let duckHeight = 0.3;

// Statement 3: The two passwords match
let pwd1 = 'stromboli';
let pwd2 = 'stROMBoLi'

// Add your code here

weightComparison = eleWeight < mouseWeight;
heightComparison = ostrichHeight > duckHeight;
pwdMatch = pwd1 == pwd2;

// Don't edit the code below here!
```

JavaScript

- **How do you declare a Variable?**

- To declare a variable you can use it in 3 ways such as **var**, **let**, and **const**
- In Javascript variable are used for storing data values
- In programming, a variable is a value that can change, depending on conditions or information passed to the program.

Example:

```
var myName = 'Czarina Mae';
```

```
var myAge = 22;
```

- **Variable Types: Numbers, Strings, Booleans and arrays**

Numbers - The number object represents numerical data, either integers or floating point numbers. Doesn't include quotes.

Examples:

Whole numbers (Integers)

- Number of subscribers
- Number of Videos
- Number of Likes

Decimal numbers

- Prices
- Ratings
- 1.3324, 3.14159, 100000, -8 etc.

Strings - **Everything you see in your keyboard.** String must be written in quotes. String object can let you work with a series of characters.

Examples:

Single quote

★ 'mae'

Double quote

★ "mae"

var myHobby = 'Czarina likes to play piano'

"Hello World"

Boolean - The boolean object represents two values, either "true" or false". In other words it validates the information whether is wrong or correct.

Examples:

- var test = 60 > 40
- Var test = 25 < 14

Arrays - An array is a list. It is a special type of javascript object that can store multiple data values unlike a variable, which can only store one data value at a time. But it is often more useful to think of an array as a collection of variables of the same type.

Examples:

- arrDays = ["Monday", "Tuesday"];
- var fruits = ["banana", "kiwi", "strawberry"];
- var myNameArray = ['Mae', 'Czarina', 'Cza'];

What is a Function?

Functions are an important and useful part of programming because they create reusable code. A function is a block of code that encapsulates one isolated, self-contained behaviour for the computer to perform.

Examples:

- function greeting() { console.log('Hello World!');}
- greeting();//output//Hello World!
- greeting('Mae');//Output// Hello Mae !

List some arithmetic operators?

An arithmetic operator is a mathematical function that takes two operands and performs a calculation on them.

Arithmetic Operators niterians.blogspot.com	
Operator	Meaning
+	Addition or unary plus
-	Subtraction or unary minus
*	Multiplication
/	Division
%	Modulo division
++	Increment operator increases the integer value by one.
--	Decrement operator decreases the integer value by one.

Example:

var num1 = 20;

var num2 = 80;

6* num1;

num1 * 7;

num2 / num1;

12 % 5 gives 2 (remainder is 2)

What are assignment operators?

The Assignment operator is **equal (=)** which assigns the value of right-hand operand to its left-hand operand. That is if **a = b** assigns the value of b to a.

Assigning a value to a variable.

JavaScript Assignment Operators

Assignment operators assign values to JavaScript variables.

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y

Examples:

Syntax:

Data = value

x=30 y=40

x=y // Here, x is equal to 40

y=x // Here, y is equal to 30

var x = 17; // x contains the value 17

var y = 22; // y contains the value 22

*x *= y; // x now contains the value 374*

What is a loop?

In programming, a loop is a way to repeat the same set of actions a certain number of times or until a specific condition is true. Loops are very important in the concept of programming.

JavaScript supports different kinds of loops:

- **for** - loops through a block of code a number of times
- **for/in** - loops through the properties of an object
- **for/of** - loops through the values of an iterable object
- **while** - loops through a block of code while a specified condition is true
- **do/while** - also loops through a block of code while a specified condition is true

Examples:

for (var i = 1 ; i < 21 ; i++) { console.log(i) }

```
for ( i= 0; i< 10 ; i++) { console.log(i);}
```

Error Types-Syntax and Logic?

Syntax Errors – are mistakes such as misspelled keywords, a missing punctuation, a missing bracket, or a missing closing parenthesis. You will probably get a syntax error message within and program will not be executed. The errors must be corrected to be able to run the program.

Logic Errors - it means that the errors is preventing your program from what you expected. With logic errors there are no warning messages so it will be hard to fix as there is no specific source of error. The programmer itself must look throughly to find the errors.

