NUMBERS AND MATH

ARITHMETIC OPERATIONS

OPERATOR	DESCRIPTION
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus (Remainder)
**	Exponentation

SYNTAX RULES:

operand1 *operator* operand2

EXAMPLE:

2 + 3   20 / 4
5 - 2   10 % 3
10 * 6   5 ** 2

ORDER OF OPERATIONS

1. (.....)

2. **

3. * /

4. + -

INCREMENT AND DECREMENT

INCREMENT:

- **Increases the variable's value by 1**

- **It is done using the increment operator '++'**

INCREMENT OPERATOR:

PRE-INCREMENT

++variable

It first increases the value of the variable and then returns the updated value

EXAMPLE:
let x = 5;
let y = ++x;
-> y will be 6, and x will be 6

POST-INCREMENT

variable++

It returns the current value of the variable and then increments it.

EXAMPLE:
let x = 5;
let y = x++;
-> y will be 5, and x will be 6

DECREMENT:

- **Decreases the variable's value by 1**

- **It is done using the decrement operator '--'**

DECREMENT OPERATOR:

PRE-DECREMENT

++variable

It first decreases the value of the variable and then returns the updated value

EXAMPLE:

let x = 5;
let y = --x;
-> y will be 4, and x will be 4

POST-DECREMENT

variable++

It returns the current value of the variable and then decrements it.

EXAMPLE:

let x = 5;
let y = x--;
-> y will be 5, and x will be 4

WEIRD BEHAVIOR OF MATH
IN JAVASCRIPT

- CALCULATION IN FLOAT CAN BE SOMETIMES INACCURATE

- PEOPLE CAN COUNT 0-9 BUT COMPUTER CAN ONLY STORE 0 AND 1

- NOT ALL DECIMALS HAS EXACT REPRESENTATION IN BINARY

ROUNDING NUMBERS IN JAVASCRIPT:

Math.round()

EXAMPLE:

Math.round(2.65) -> 3