**Introduction to Web Development: JavaScript**

**Class 3: Exercises**

1. Be able to understand and use many of the math properties and methods.
   1. Determine the answers to the following example lines of code before actually running the code in your browser.

const numb1 = 20;

const numb2 = 12;

let val;

// simple math

val = numb1 + numb2; // addition

val = numb1 - numb2; // subtraction

val = numb1 \* numb2; // multiplication

val = numb1 / numb2; // division

val = numb1 % numb2; // modulus

* 1. Implement the following 10 math properties and methods. Be able to describe the purpose of each.

// Math Object

val = Math.PI;

val = Math.E;

val = Math.round();

val = Math.ceil();

val = Math.floor();

val = Math.sqrt();

val = Math.abs();

val = Math.pow();

val = Math.min();

val = Math.max();

* 1. Explain why this block of code is multiplying the round() method by 10 and adding 1. What is the purpose of the floor() method.

val = Math.random();

val = Math.random() \* 10;

val = Math.floor(Math.random() \* 10 + 1);

1. Write some code demonstrating the following string operators, properties, and methods.

// Concatenation

// Append

// Escaping

// Length

// concat()

// changing the case

toLowerCase()

toUpperCase()

// strings as arrays

// indexOf()

indexOf()

lastIndexOf()

// charAt()

// slice()

// split()

// replace()

// includes()