Assignment 1

## [8+7+1+4=20 marks]

Objective:

Practice JavaScript basic syntax, built‐in functions, and user-defined functions.

Specification:

## Write a JavaScript program **a1.js** to perform the following two (2) tasks.

Create comment line(s) for each of the Tasks using block comments, indicating the start point of each Task. e.g.

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

# Task 1: Play with numbers [8 marks]

Using function declaration, define a JavaScript function (name it: playNumbers), which takes indefinite number of parameters.

This function does not return any value. Instead,

1. if the function call didn't pass any arguments, your function displays: There are no inputs.

program terminates.

1. if one or more arguments are not numbers, your function displays: (The parameter) is not a number.

for all the arguments that are not a number.

e.g. if the parameters are ("abc", 3, "hello"), your program displays: abc is not a number.

hello is not a number.

program terminates.

1. Otherwise (if not (1) nor (2)),

(3.1) it displays the lowest value of all the parameters in the format:

The lowest number of (para1, para2,...) is (the lowest value). e.g., The lowest number of (9, 3, 6) is 3.

(3.2) it displays the average of all the values in the format: The average of (para1, para2, ...) is (the average).

e.g., The average of (9, 3, 6) is 6.

1. Test your program using the following statements. console.log("/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/");

playNumbers(); playNumbers("abc", 3, "hello");

playNumbers(9,3,6); playNumbers(3,5,1,3,5); playNumbers("Good day!",3,4,32,"hi", "we");

Sample result for the above function calls:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ There are no inputs.

abc is not a number. hello is not a number.

The lowest number of (9, 3, 6) is 3

The average of (9, 3, 6) is 6

The lowest number of (3, 5, 1, 3, 5) is 1

The average of (3, 5, 1, 3, 5) is 3.4 Good day! is not a number.

hi is not a number. we is not a number.

# Task 2: Currency converter [7 marks]

Using function expression, write a JavaScript function (name it: convertCurrency) that converts currency from Canadian dollars to either US dollars or Euro.

This function takes two parameters (val, cf), where val is the Canadian dollar value you need to convert (Use formulas from google to do the conversion. Make sure to include link where you found the formula as comment and date on which you extracted the formula).

This function does not return any result.

1. If any other number of parameters is provided, your function displays "Incorrect Number of Inputs :(" terminate the program.
2. If val is not a number, your function displays, "I need a number". terminate the program.
3. If cf is not "$" or "E", your function displays "I am confused :(" terminate the program.
4. If all values are correct, your function will do the conversion and display an appropriate message:

(val)cad is equivalent to (the result from your calc) in (Unit).

1. Test (call) your function with multiple examples/values (parameters): Need at least 5 tests to test different scenarios of your code.

Test with the following statements. The corresponding result follows.

console.log("/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task2 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/"); convertCurrency (100);

convertCurrency (100, "M");

convertCurrency (100, "$");

convertCurrency (100, "E");

convertCurrency ("100", "E");

Sample result for the above function calls:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task2 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

Incorrect Number of Inputs :(

I am Confused :(

100 Cad is equivalent to (value depending on your formula) in US $

100 Cad is equivalent to (value depending on your formula) in Euro

I need a Number

Submission:

* Save your file as **a1.js**. Add the following comment declaration with your info at the top of your code: [1 mark]

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

* Assignment 1
* I declare that this assignment is my own work in accordance with Seneca Academic Policy.
* No part of this assignment has been copied manually or electronically from any other source
* (including web sites) or distributed to other students.
* Name: Student ID: Date:

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## Submit your **a1.js** to Blackboard under assignment section

* You will also need to create a 3-5 min video in which you demo/explain your code and test it. Submit this video with a1.js through Blackboard. Uploading the video to blackboard might take time, so plan accordingly. [4 marks]
* You can upload Video on a third party website(YouTube, OneDrive…) and just share the link on blackboard.
* Do not zip your a1.js and Video together. Upload them as separate files. If you zip them, you will loose 20% of your grade.
* Late submission:

## 20% penalty each day for up to 5 days. After that, no submission will be accepted.