# **PYTHON TO JAVASCRIPT!!! - PART 2**

Instruction

* You need to complete the **XXXXX** part with the JAVASCRIPT equivalent code
* You can work in team or by yourself –
  + Search on internet
  + or read the **1-Javascript Cheat Sheet.pdf**
  + <https://www.w3schools.com/js/default.asp>
* **IMPORTANT** : you need to test the code before writing it !!!

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|  | **PYTHON** | **JAVASCRIPT** |
| **BOOLEAN**  **OPERATORS** | **IS EQUAL, IS GREATER**  x = 5  y = 5  print (x == y)  >True  **AND / OR / NOT**  x = 5  y = 5  print (not (x == y and ( x>5 or y<10) ))  >false | IS EQUAL, IS GREATER  **let x = 5**  **let y = 5**  **console.log(x == y);**  AND / OR / NOT  **let x = 5**  **let y = 5**  **console.log( ! (x == y && (x > 5 || y < 10 )));** |
| **TYPES** | CONVERT A STRING TO INTEGER  **int**(<**STRING>)**  n = ‘5’  print (int(n) + int(n))  >10  CONVERT A INTEGER TO STRING  **str**(<**INTEGER>)**  n = 5  print (str(n) + str(n))  >55 | CONVERT A STRING TO INTEGER  **let n = ‘5’**  **console.log(parseInt( n) + parseInt (n) );**  CONVERT A INTEGER TO STRING  **let n = 5**  **console.log(toString (n) + toString(n));** |
| **FUNCTION** | DEFINE A FUNCTION  def sum(n1, n2):  total = n1 + n2  return total  print(sum(100,200)) -> 300 | DEFINE A FUNCTION  **Function sum(n1, n2) {  let total = n1 + n2**  **return total ; }**  **console.log(sum(200,100));** |
| **DATA**  **STRUCTURES** | **ARRAY**  # Create empty array  array = []  fruits = [“apple”, “banana”]  # Create array with values  array = [12, 13, 15, 16]  # Access using index  value = array[2]  # Insert value at index  array.insert(1, 20)  # Insert value at the end  array.append(20)  # Remove using index  array.pop(2)  # Get a sub array  subarray = array[2:25]  **ARRAY 2D**  # Create array2D with values  array2D = [ [12, 13, 15, 16], [4, 5, 6, 7]]  # Access using index  value = array2D[2][0]  **DICTIONARY**  # Create empty dictionary  dic = {}  # Create array with values  dic = { **key1**:**value1**, **key2**:**value2** … }  # Access using **key**  value = dic[**key1**]  # Add value for a new key  dic[**key3**] = **value3**  # Update value from existing key  dic[**key2**] = **value2New**  # Remove using key  dic. pop(**key2**) | **ARRAY**  # Create empty array  **let array = []**  # Create array with values  **XXXXXXXXXXXX**  **let array = [12,13,15,16]**  # Access using index  **XXXXXXXXXXXXXXXXX**  **let value = array[2];**  # Insert value at index  **for(let i = 1; i <= 20; i++){**  **numberArray.push(i);**  **};**  # Insert value at the end  **XXXXX**  **array.push(20);**  # Remove using index  **XXXXX**  **let element = array.splice(2, 1)[0];**  # Get a sub array  **XXXXX**  **let subarray = array.slice(2, 25);**  **ARRAY 2D**  # Create array2D with values  **XXXXX**  **let array2D = [**  **[**12, 13, 15, 16**],**  **[**4, 5, 6, 7**],**  **];**  # Access using index  **XXXXX**  **let value = array2D[2][0];**  # Create empty dictionary  let dic = {};  **OBJECT**  # Create empty object  **let object = {};**  # Create array with values  **XXXXX**  **Object = {key1: value10, key2: value20..};**  # Access using **key**  **XXXXX**  let value = dic[**key1**];  # Add value for a new key  **XXXXX**  **Object = [key 1: value10 ; key2: value 20 ; key3: value 40 ]**  # Update value from existing key  **XXXXX**  **Object = [key1 : value20 ; key : value30 ]**  # Remove using key  **XXXXX**  **delete dic[key2];** |

**Q2 The 3 ways to declare a variable in JS**

var a = 4 No Use

Let a = 4

const a = 4

* Can you explain what the differences?