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

Instruction

* You need to complete the **X** part with the JAVASCRIPT equivalent code
* You can work in a 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 ){**  **total = n1 + n2**  **return total**  **}**  **console.log(sum(100,200))**  DEFINE AN ARRAY FUNCTION  **X** |
| **DATA**  **STRUCTURES** | **ARRAY**  # Create an empty array  array = []  fruits = [“apple”, “banana”]  # Create an 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 an empty dictionary  dic = {}  # Create an 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 an empty array  **let array;**  # Create an array with values  **let array = [ 12,13,14,15]**  # Access using index  **let value = array[2]**  # Insert value at index  **array.splice(1,0,20)**  # Insert value at the end  **array.push(20)**  # Remove using index  **array.splice(2,3)** From 2 to 3  # Get a sub array  **subarray = array.slice(2:25)**  **ARRAY 2D**  # Create array2D with values  **let array2D[[12,13,15,16],[4,5,6,7]]**  # Access using index  **value = array2D[2][0]**  **OBJECT**  # Create an empty object  **let dic= {};**  # Create an array with values  **let dic = { “key1”:value1, “key2”:value2 … }**  # Access using **key**  **value = dic[“key1”]**  # Add value for a new key  **dic.key3 = 4**  # Update value from existing key  **dic[“key2”] = value2New**  # Remove using key  **delete dic.key2** |

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

var a = 4

Let a = 4

const a = 4

* Can you explain the differences?
  + Var: You can change and use this variable everywhere.
  + let: You can change this variable value but you can’t use it everywhere. you can only use it in one block.
  + const: You can’t change this variable value and you can’t use it everywhere. you can only use it in one block.