# **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  **n = ‘5’;**  **console.log(Number(n) + Number(n))**  CONVERT A INTEGER TO STRING  **n = 5**  **console.log(String(n) + String(n))** |
| **FUNCTION** | DEFINE A FUNCTION  def sum(n1, n2):  total = n1 + n2  return total  print(sum(100,200)) -> 300 | DEFINE A FUNCTION  **function myfunction(n1,n2){**  **return n1 + n2;**  **}**  **Console.log(myfunction(100,200)**  DEFINE AN ARRAY FUNCTION  **XXXXX** |
| **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  **let array = [12, 13, 15, 16]**  # Access using index  **for (let index in array){**  **if index == 2;**  **console.log( array[index]);**  **}**  # Insert value at the end  **let array = [14,15,16,17,18];**  **array.splice(1,0,20);**  # Insert value at index  **let array = [];**  **array.push(20);**  **console.log(array)**  # Remove using index  **Let array = [1,2,3,4,5];**  **array.splice(2,1);**  **console.log(array)**  # Get a sub array  **let array = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24.25.26];**  **let subArr = array.filter(x => x > 2);**  **console.log(subArr)**  **ARRAY 2D**  # Create array2D with values  **Let array2D = [[12,13,14,16],[4,5,6,7]];**  **Console.log(array2D)**  # Access using index  let array2D = [[12,13,14,15],[4,5,6,7]];  console.log(array2D[1][0])  **OBJECT**  # Create empty object  let dic = {}  console.log(dic)  # Create array with values  let person = {firstName: "khmer",lastName: "Ksk"};  console.log(person)  # Access using **key**  let person = {'firstName': "khmer",'lastName': "Ksk"};  console.log(person['firstName'])  # Add value for a new key  **Person.push({‘keyName’: ‘Value’})**  # Update value from existing key  **Person.keyName = Newvalue**  # Remove using key  Delet. Dis.keyName |

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

var a = 4

Let a = 4

const a = 4

* Can you explain what the differences?

The differences of three variable are

* Var is variable that process all documemt in javascript.
* Let is variable that process only function or one place.
* Const is variable that we can’t change value after create.