# **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 !!!

|  |  |  |
| --- | --- | --- |
|  | **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  **XXXXXXXXXXXX**  let x =5  let y = 5  console.log(x==y);  AND / OR / NOT  **XXXXXXXXX**  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  **XXXXXXXXXXXXXXXXX**  let numbers ="5"  console.log(Number(numbers)+Number(numbers))  CONVERT A INTEGER TO STRING  **XXXXXXXXXXXXXXXXX**  let numbers =5  console.log(String(numbers)+String(numbers)) |
| **FUNCTION** | DEFINE A FUNCTION  def sum(n1, n2):  total = n1 + n2  return total  print(sum(100,200)) -> 300 | DEFINE A FUNCTION  **XXXXXXXXXXXXXXXXXXX**  function sum(n1,n2) {      total = n1 +n2      return total  }  console.log(sum(10,20)); |
| **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 an empty array  **XXXXXXXXXXXXXXX**  let array =[]  let fruits =["apple","banana"]  # Create array with values  **XXXXXXXXXXXX**  let array =[12,13,15,16]  # Access using index  **XXXXXXXXXXXXXXXXX**  let value =[2]  # Insert value at index  **XXXXXXXXXXXXXXX**  array.insert(1, 20);  console.log(array);  # Insert value at the end  **XXXXX**  array.push(20);  # Remove using index  **XXXXX**  array.pop(2);  console.log(array);  # Get a sub array  **XXXXX**  Let subarray =array[2:25]  **ARRAY 2D**  # Create array2D with values  **XXXXX**  Let array2D =[[12,13,15,16],[14,5,6,7]]  # Access using index  **XXXXX**  Let array2D =[2][0]  **OBJECT**  # Create empty object  **XXXXX**  Let dic ={}  # Create array with values  **XXXXX**  Let dic ={key1:value1,key2:value2…}  # Access using **key**  **XXXXX**  Let value =dic[“name”]  # Add value for a new key  **XXXXX**  Dic.push({keyName:value)};  # Update value from existing key  **XXXXX**  Dic.keyName=value2New  # Remove using key  **XXXXX**  Delete dic.keyName |

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

var a = 4

Let a = 4

const a = 4

* Can you explain the differences?
* Let variables can be updated but not re-declared.
* Const variables cannot be updated or re-declared.
* var variables may both be updated.