# **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; y = 5  console.log(x==y)  AND / OR / NOT  let x = 5; 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(""+n+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) {      return n1 + n2  }  console.log(sum(100,200))  DEFINE AN ARRAY FUNCTION  let array=[]  function getArray(n) {      array.push(n)  } for (let i = 10; i < 20; i += 2){      getArray(i)  }  console.log(array) |
| **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  let value = array[2]  console.log(value)  # Insert value at index  array.splice(1,0,20)  console.log(array)  # Insert value at the end  array.push(20)  console.log(array)  # Remove using index  array.pop(25)  console.log(array)  # Get a sub array  let subArray=array.slice(2,25)  console.log(subArray)  **ARRAY 2D**  # Create array2D with values  let array2D = [[12, 13, 15, 16], [4, 5, 6, 7]]  # Access using index  let value = array2D[2][0]  **DICTIONARY**  # Create empty dictionary  let dic={}  # Create array with values  let dic = { "Tim": "Student", "Sex": "Famel", "Age": 23 }  # Access using **key**  let value1 = dic["Tim"]  console.log(value1)  # Add value for a new key  let value3 = dic["Age"]  console.log(value3)  # Update value from existing key  let value2 = dic["Sex"]="Male"  console.log(value2)  # Remove using key  delete dic['Sex']  console.log(dic) |

**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?