Swift Basics 2 – Assignments

Exercise 15

**Assign a tuple with two values in it to a constant named player.**

**The values could represent the number of a hockey player and the name of the hockey player. For example, Igor Larionov whose number used to be 8.**let player = ("Larionov", 8)

print(player.0)

print(player.1)

Exercise 16

**OK, now you have a player tuple. Decompose (i.e. split) the number and the name into two constants named number and name. This could be done in at least three ways.**

**let (x, y) = (x: "Larionov" , y: 8 )**

**print(x, y)**

Exercise 17

**Can a constant have an optional type? If you're not sure, try it and see what happens.**

**Ex: let optionalType:Int? = 5**

**//print(optionalType)**

**print(optionalType!)**

**Solution. Yes, a constant can have an optional type**

**let value: Int? = nil**

**print(value)**

**let otherValue: Int? = 6**

**print(otherValue)**

Exercise 18

**Why doesn't this work? What needs to be added to value on the second line for this to work?**

**let value: Int? = 17**

**let banana: Int = value**

Exercise 19

**If value in the previous exercise had been nil, what would have happened if you force unwrapped value?**

**let value: Int? = nil**

**let banana: Int = value!**

Exercise 20

**What would be a better way to assign value to the banana**

**constant?**

**use the “let” keyword**

Exercise 21

**Write a Swift program to compute the sum of the two integers. If the values are equal return the triple their sum.**

**\*/**

**func triplesum(num1: Int, num2: Int) -> Int {**

**if num1 == num2**

**{**

**return (num1 + num2) \* 3**

**}**

**else**

**{**

**return num1 + num2**

**}**

**}**

**print(triplesum(num1: 32, num2: 32))**

**print(triplesum(num1: 22, num2: 23))**

**print(triplesum(num1: 43, num2: 55))**

Exercise 22

**Write a Swift program to check if 5 appears as either the first or last element in a given array of integers. The array length should be 1 or more.**

**func firstAndLast5( \_ arra:[Int]) -> Bool {**

**if arra.first == 5 || arra.last == 5**

**{**

**return true**

**}**

**else**

**{**

**return false**

**}**

**}**

**print(firstAndLast5([1, 2, 5]))**

**print(firstAndLast5([5, 1, 2, 3, 4]))**

**print(firstAndLast5([5, 6, 1, 2, 5]))**

**print(firstAndLast5([1, 2, 6, 5, 3, 7]))**

Exercise 23

**Write a Swift program to create a new array with the elements in reverse order of a given array of integers.**

**import Swift**

**var newarray = [11,22,33,44,55]**

**print("Array before reversing:", newarray)**

**newarray.reverse()**

**print("Array after reversing:", newarray)**

Exercise 24

**Write a Swift program to rotate the elements of an array of integers to left direction. Therefore {1, 2, 3} yields {2, 3, 1}**

**func rotateleft3(\_ arra: [Int]) -> [Int] {**

**var array2 = arra**

**array2.removeFirst()**

**array2.append(arra.first!)**

**return array2**

**}**

**print(rotateleft3([1, 2, 3]))**

**print(rotateleft3([2, 3, 1]))**

Exercise 25

**Write a Swift program to compute the sum of all the elements of a given array of integers and length 4.**

**func sum(\_ arra: [Int]) -> Int {**

**return arra.reduce(0, +)**

**}**

**print(sum([1, 2, 3,4]))**

**or**

**var array = [1, 2, 3]**

**var n = 0**

**for i in array {**

**n += i**

**}**

**print("My sum of two integer is: \(n)")**

Exercise 26

**Write a Swift program to compute and return the absolute difference of n and 51, if n is over 51 return double the absolute difference**

Exercise 27

**Write a Swift program that accept two integer values and return true if one of them is 20 or if their sum is 20**

func check20(a: Int, b: Int) -> Bool {

if a + b == 20 || a == 20 || b == 20

{

return true

}

else

{

return false

}

}

print(check20(a: 20, b: 30))

print(check20(a: 50, b: 10))  
Exercise 28

**Write a Swift program to accept two integer values and return true if one is negative and one is positive. Return true only if both are negative.**

**func twoInteger(a: Int, b: Int) -> Bool {**

**if a > 0 && b < 0**

**{**

**return true**

**}**

**else if a < 0 && b > 0**

**{**

**return true**

**}**

**else if a < 0 && b < 0**

**{**

**return true**

**}**

**else**

**{**

**return false**

**}**

**}**

**print(twoInteger(a:-3, b:14))**

**print(twoInteger(a:-29, b:-5))**

Exercise 29

**Write a Swift program that return true if either of two given integers is in the range 10..30 inclusive.**

**func returntrue1030(a: Int, b: Int) -> Bool {**

**if a >= 10 && a <= 30**

**{**

**return true**

**}**

**else if b >= 10 && b <= 30**

**{**

**return true**

**}**

**else**

**{**

**return false**

**}**

**}**

**print(returntrue1030(a: 20, b: 10))**

**print(returntrue1030(a: 40, b: 40))**