1. Try the statements below in REPL. Please answer that there are correct or not and

explain the reasons.

a. val id = 9527 -->correct,

REPL執行結果:

val id = 9527

print("id="+id)

//id=9527

/\*不特別指定變數屬性則會依輸入值默認，順利印出id=9527\*/

b. var number : Int = 5.6 -->incorrect,

REPL執行結果:

var number : Int = 5.6

//error: the floating-point literal does not conform to the expected type Int

/\*宣告number時已指定其類型為Int(32位元整數),故不能設為小數;類型改使用Double即可\*/

修正後REPL執行結果:

var number : Double = 5.6

print("number="+number)

//number=5.6

/\*順利印出number=5.6\*/

c. var title = "Hello Kotlin!" -->correct

REPL執行結果:

var title = "Hello Kotlin!"

print("title = "+title)

//title = Hello Kotlin!

/\*不特別指定變數屬性則會依輸入值默認，順利印出title = Hello Kotlin!\*/

d. val content : String = null -->incorrect

REPL執行結果:

val content : String = null

//error: null can not be a value of a non-null type String

//val content : String = null

/\*宣告content的類型String並不可指定為null,需加上?-->String?

修正後REPL執行結果:

val content : String? = null

print(content.isNullOrBlank())

//true

/\*判斷content為null\*/

e. val number : Double? = 556.6 -->correct

val number : Double? = 556.6

print("number="+number)

//number=556.6

/\*宣告變數屬性為Double(64位元浮點數)，順利印出number=556.6\*/

f. var list: List<String>? = listOf (null, null) -->incorrect

REPL執行結果:

var list: List<String>? = listOf (null, null)

//error: type inference failed. Expected type mismatch: inferred type is List<Nothing?> but List<String>? was expected

//var list: List<String>? = listOf (null, null)

/\*因宣告類型為List?,可以使list=null,但不能使集合內string為null,加上string?即可\*/

修正後REPL執行結果:

var list: List<String?>? = listOf (null, null)

print(list)

//[null, null]

g. var list: List<String?>? = listOf ("Wayne", "Chen") -->correct

REPL執行結果:

var list: List<String?>? = listOf ("Wayne", "Chen")

print(list)

//[Wayne, Chen]

/\*list被宣告為本身或集合內string可為null,此式刪去問號也可正常運行\*/

h. list.size -->incorrect

REPL執行結果:

list.size

//error: only safe (?.) or non-null asserted (!!.) calls are allowed on a nullable receiver of type List<String?>?

//list.size

/\*因上一題宣告類型為List<String?>?,訪問其屬性時也需使用list?\*/

i. list?.size -->correct

REPL執行結果:

list?.size

//res71: kotlin.Int? = 2

/\*使用list?可順利執行\*/

2. Read the code below, choose the correct answer and explain the reason.

執行結果為 : Your grace.

因已宣告message = "Hello and welcome to AppWorks School :)"

其字串長度為39,

when (運算式，用來判斷的資料) {

值[,值...] -> 判斷的資料等於前面的值，執行這裡的程式碼

[...]

[else -> 判斷的資料不等於前面指定的值，執行這裡的程式碼]

}

經過when函數符合條件為 in 1 .. 39 -> println ( "Your grace." )

3. Read the code below, choose the correct answer and explain the reason.

answer : d. val array = Array(6) { 1000.0.pow( it ) }

如需使用array的元素編號與元素值，可使用for (<index, value> in <array>.withIndex()) { ...}

觀察題目output結果，value.toLong()可使其元素值轉換為整數

for迴圈使用array的元素值為{1,1000.0,1000000.0,......}

-->宣告一個array其有6個成員,其元素值為1000.0^(元素編號)

val array = Array(6) { 1000.0.pow( it ) }符合結果