

```

1 fun main() {
2
3 // Declare Variables
4 var myInt: Int = 4
5 var myUInt: UInt = 4u
6 var myLong: Long = 5L
7 var myFloat: Float = 4.2f
8 var myDouble: Double = 4.3
9 var myHexInt: Int = 0x000A
10 var myBinInt: Int = 0b0111
11 var myChar: Char = 'D'
12 var myByte: Byte = 2
13 var myShort: Short = 5
14 var myString: String = "inha"
15
16 // Type Casting
17 myInt = myLong.toInt()
18
19 // Bit Operator (shifting, and, or, xor)
20 var leftShift = 1 shl 2 // shift left, 0100
21 var rightShift = 0b0100.shr(2) // shift right, 0001
22 var INT_MAX: UInt = (1 shl 31).toUInt() // shift left, 214748364
23 var and = 1 and 0x00001111
24 var or = 1 or 0x00001111
25 var xor = 1 xor 0x00001111
26
27 // String with Double Quotes, or Triple Double Quotes(No need escape letters)
28 var myString1: String = "<Sale>\nPrice : \$100,000"
29 var myString2: String = ""<Sale>
30 Price : $100,000""
31
32 // Array Declare
33 var myArray = arrayOf(1,2,3)
34 var mySquareArray1 = Array(10, {k -> k * k }) // {0,1,4,9,16,...,1024}
35 var mySquareArray2 = Array(10, { it * it }) // {0,1,4,9,16,...,1024}
36
37 // Array Print
38 println(myArray.contentToString()) // "[1, 2, 3]"
39 println(myArray.joinToString()) // Only possible when element is primitive, like Array<Int>.
40
41 // Range operator '..', 'in', 'downTo', 'rangeTo', 'step', 'reversed'
42 // Remember : Range is defined by Start, End, Delta(step).
43 val aToz = "A".."Z"
44 val isCapitalLetter = "c" in aToz // false
45 val myDescendingOrder1 = 5.downTo(1) // range 5,4,3,2,1
46 val myDescendingOrder2 = 5 downTo 1 // range 5,4,3,2,1
47 val myAscendingOrder1 = 5.downTo(9) // range 5,6,7,8,9
48 val myAscendingOrder2 = 5 downTo 9 // range 5,6,7,8,9
49 val my13579_1 = (1..10).step(2) // range 1,3,5,7,9
50 val my13579_2 = 1..10 step 2 // range 1,3,5,7,9
51 val my97531_1 = my13579_1.reversed() // range 9,7,5,3,1
52
53 // for loops
54 // Remember : for ('elem' in 'range')
55
56 // 1. .. operator
57 for (i in 1..5){
58     print(i)
59 }; println() // 12345
60
61 // 2. Array
62 for (i in intArrayOf(0,1,0,5,3,1,8,6,4,6,1)){
63     print(i)
64 }; println() // 01053186461
65
66 // 3. Descending Order
67 for (i in 5 downTo 1){
68     print(i)
69 }; println() // 54321
70
71 // 4. Descending Order, step
72 for (i in 9 downTo 0 step 2){
73     print(i)
74 }; println() // 97531
75
76 // 5. String
77 val tmpString: String = "InHa"
78 for (i in tmpString){
79     print(i.toString()+" ")
80 }; println() // I n h a
81
82 // 6. When you need index, use 'indices'.
83 val tmpArray = arrayOf(1,2,3)
84 for (i in tmpArray.indices){
85     println("Index $i : ${tmpArray[i]}")
86 }
87
88 // class declare(No need to use 'new')
89 class Vector2D(var x: Double, var y: Double){

```

```

90     constructor() : this(0.0, 0.0)
91     fun biggerValue(): Double = if (x>y) x else y // return statement with one-line if-else!
92 }
93 var myVec = Vector2D(3.0, 4.0)
94 println("${myVec.x} ${myVec.y} ${myVec.biggerValue()}")
95 var myVec2 = Vector2D()
96 println("${myVec2.x} ${myVec2.y} ${myVec2.biggerValue()}")
97
98 // How to print many variables(Use '$' in "")
99 val tmpInt1 = 1;
100 val tmpInt2 = 2;
101 val tmpInt3 = 3;
102 println("$tmpInt1, $tmpInt2, $tmpInt3") // 123
103
104 // Get User Input, and Store in List
105 val myList: List<Int>? = readLine()?.split(" ").map{it.toInt()}
106 // ? : Means that it's nullable.
107 // readLine()? : Get user input as ASCII String.
108 // split(" ") : Return List<T> that delimiter is " ".
109 // map{code} : Apply 'code' in to every element, and change them.
110 // it : Name of Variable in Lambda Function.
111 // it.toInt() : Means to convert every element into Int.
112 // Ex) input : "1 2" -> result : myList = [1,2]
113
114 // Get 2 numbers by user, print sum
115 print(readln().sumOf{it-' '}-32)
116 // readln() : Get user input as ASCII String.
117 // sumOf : Function that return Sum, which have Lambda Function as it's argument
118 // {it-' ' } : Subtract ' ' for every char in String. So, it subtracts ' '(32).
119 // -32 : '0' is 48. We have to subtract 16 for each number because we subtracted 32 already. So subtract 32 because
    there are 2 numbers.
120 // Ex) input : "1 2" -> result : print 3.
121
122 // Get 2 numbers by user, print sum (2)
123 print(readln().split(" ").sumOf{it.toInt()})
124 // readln() : Get user input as ASCII String.
125 // split(" ") : Return List<T> that delimiter is " ".
126 // sumOf : Function that return Sum, which have Lambda Function as it's argument
127 // Ex) input : "1 2" -> result : print 3.
128 }

```