.data

array: .word 0, 1, 2, 3, 4, 5, 0, 7, 8, 9, 0, 0, 2, 3, 0

res: .asciiz "\nNumber of zeros: "

Spacing: .asciiz " "

.globl main

.text

main: la $t0, array

li $t1, 15

jal printArray #function call

la $a0, res

li $v0, 4

syscall

move $a0, $t2 #Number of zeros

li $v0, 1

syscall

li $v0, 10

syscall

printArray:

beqz $t1, Exit #Exit when the end of the array is reached

lw $a0, 0($t0)

li $v0, 1

addi $t1, $t1, -1

addi $t0, $t0, 4

beqz $a0, count #If the element is zero, count and don't print

syscall #print

la $a0, Spacing

li $v0, 4

syscall

bgez $t1, printArray #Exit when end of array is reached

Exit: jr $ra #return to main

count: addi $t2, $t2, 1 #count zeros

b printArray #branch to function