CS254 Computer Organization and Assembly Language	November 18, 2016
Quiz 2	

The code of subroutine "conversion" that takes one temperature in Celsius and converts it to Fahrenheit using the approximate formula $f = c \cdot 2 + 32$ is given.

The main routine, **in a loop**, prompts the user for a value of a temperature and prints out the result. The loop ends when the user enters an integer out of the range of $[-50, 50]$. The partial code of the main routine is given. Finish the program. Submit one .s or .asm file that includes both the main routine and the subroutine.

```
        .text
        .globl main
main:
        li $v0, 4
        la $a0, promptC
        syscall

        li $v0, 5
        syscall                 #read input

        li $s1, 50              #upper bound
        li $s2, -50             #lower bound

        bgt $v0,  $s1, exit     #if larger than 50, exit
        nop
        blt $v0, $s2, exit      #if lower than -50, exit
        nop
```

```
exit:
        li $v0, 10
        syscall


        .data
promptC: .asciiz "Please enter a temptation in Celsius: "
msgF: .asciiz "The converted Fahrenheit is: "



        .text
        .globl conversion
conversion:
        sll $a0, $a0, 1            #$a0 times 2
        addiu $v0, $a0, 32
        jr $ra
        nop
```