1. (5 points) What expression (in terms of a, b, c and constants) does this compute and put int $t3? Show your work by writing the contents of the register changed after each instruction. (Assume a=$t0, b=$t1, c=$t2)

```
add $t3, $t0, $t1
addi $t3, $t3, -1
sll $t3, $t3, 2
addi $t4, $t3, 0x1
beq $t4, $zero else
sub $t3, $t3, $t2
else:
    add $t3, $t3, $t2
exit:
    addiu $t3, $t3, 4.
```

2. (5 points) Translate the C code given below to MIPS assembly code. Assume that the value a,b,i,j are in the registers $s0, $s1, $t0, $t1 respectively. Also, assume that registers $s2 holds the base address of the integer array D (each integer takes 4 bytes). Comment your MIPS code to indicate what each line does.