1. Disassemble the following HC12 op codes:
    D6 22 73 20 A4 18 16 27 F9 3F
Indicate what instructions these bytes correspond to. For each instruction indicate the addressing mode which is used.

2. Repeat Problem 1 for the following op codes:
    B7 F6 18 03 A2 17 21 5A A6 2E 04 B6 F5

3. Which of the conditional branch instructions in the following list will cause a branch to be taken if the condition code flags are: N=1, Z=0, V=0, C=1:
(a) BCC label
(b) BGE label
(c) BHI label

4. Below shows a sequence of instructions to be executed by a 68HCS12. Fill in the table, showing the value in accumulator A and the state o the condition flags N, Z, V and C after each instruction. The table shows the initial value of the condition flags and A

Instruction	Accumulator A	N	Z	V	C
	$00				
TSTA					
ADDA #$40					
SUBA #$78					
LSLA					
ROLA					
ADDA #$CF					

5. Write a program to count the number of odd 16-bit numbers in a table of data. The starting address of the table is $8000, and there are $2000 numbers in the table. The numbers signed. The program should write the count into memory location $2000.