13. Program to count number of ones in a 16 bit number

DATA SEGMENT

A1 DW 0FFAFH

A2 DB 00h

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV DL,00H

MOV AX,A1

MOV CX,0010H

AGAIN:ROR AX,01H

JNC NEXT

INC DL

NEXT: LOOP AGAIN

MOV A2,DL

INT 3

CODE ENDS

END START

14. Check whether a number is odd or even( This program shows 00 if number is even , otherwise shows 01)

DATA SEGMENT

A1 DW 0FFAEH

A2 DB 00h

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV DL,00H

MOV AX,A1

ROR AX,01H

JNC NEXT

INC DL

NEXT:MOV A2,DL

INT 3

CODE ENDS

END START

15. Check whether a number is divisible by another number. ( This program shows 00 if number is divisible , otherwise shows 01)

DATA SEGMENT

A1 DW 00E8H

A2 DB 74h

A3 DB 00H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV DL,00H

MOV AX,A1

MOV BL,A2

DIV BL

CMP AH,00H

JNZ NEXT

INC DL

NEXT:MOV A3,DL

INT 3

CODE ENDS

END START