Program to add two 16 bit numbers

DATA SEGMENT

A1 DW 0FFFFH

A2 DW 1232H

A3 DW 0000H

A4 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 BX,A2

ADD AX,BX

JNC NEXT

INC DL

NEXT: MOV A3,AX

MOV A4,DL

INT 3

CODE ENDS

END START

Program to subtract two 16 bit numbers

DATA SEGMENT

A1 DW 0FFFFH

A2 DW 1232H

A3 DW 0000H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV AX,A1

MOV BX,A2

SUB AX,BX

MOV A3,AX

INT 3

CODE ENDS

END START

Program to multiply two 16 bit numbers

DATA SEGMENT

A1 DW 2345H

A2 DW 1232H

A3 DW 0000H

A4 DW 0000H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV AX,A1

MOV BX,A2

MUL BX

MOV A3,AX

MOV A4,DX

INT 3

CODE ENDS

END START

Program to divide a 32 bit number by 16 bit number

DATA SEGMENT

A1 DW 2345H

A2 DW 1232H

A3 DW 0FF34H

A4 DW 0000H

A5 DW 0000H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV AX,A1

MOV DX,A2

MOV BX,A3

DIV BX

MOV A4,AX

MOV A5,DX

INT 3

CODE ENDS

END START