;LAB-05 TASK-01

.MODEL SMALL

.STACK 100H

.DATA

X DB ?

Y DB ?

.CODE

MAIN PROC

;initizlize DS

MOV AX,@DATA

MOV DS,AX

; enter your code here

MOV AH,1

INT 21H

MOV X,AL ;taking 1st input in X

SUB X,30H

MOV AH,1

INT 21H

MOV Y,AL ;taking 1st input in Y

SUB Y,30H

MOV AH,2

MOV DL,0DH

INT 21H ;NEXT LINE

MOV DL,0AH

INT 21H

MOV AH,2

WHILE:

MOV AH,0

MOV AL,X

MOV CL,Y

CMP AL,CL

JG end

;MOV AH,30H

MOV BL,3

DIV BL

ADD AH,30H

MOV DH,AH

MOV DL ,30H

CMP DH,DL

JE DIVISIBLE

JMP INCREMENT

DIVISIBLE:

MOV BL,3

MUL BL

ADD AL,30H

MOV AH,2

MOV DL,AL

INT 21H

JMP INCREMENT

INCREMENT:

INC X

MOV AL,X

JMP WHILE

end:

;exit to DOS

MOV AX,4C00H

INT 21H

MAIN ENDP

END MAIN

;LAB-05 TASK-02

.MODEL SMALL

.STACK 100H

.DATA

SUM DW ?

POS DW ?

.CODE

MAIN PROC

;initizlize DS

MOV AX,@DATA

MOV DS,AX

; enter your code here

MOV POS,0

MOV SUM,0

MOV CX,1

;MOV DX,8

;MOV DX,8

WHILE:

MOV AH,0

MOV AX,POS

CMP CX,1024 ;8;16;32;256;512

JG end

MOV BL,2

DIV BL

;MOV BH,0

;ADD BH,30H

CMP AH,0H

JE EVEN\_POSITION

ADD SUM,CX

JMP INCREMENT

EVEN\_POSITION:

SUB SUM,CX

INCREMENT:

MOV BL,2

MOV AX,CX

MUL BX

MOV CX,AX

INC POS

JMP WHILE ; CALLING THE LOOP

end:

MOV BX,SUM

ADD BX,30H

MOV AH,2

MOV DX,BX

INT 21H

;exit to DOS

MOV AX,4C00H

INT 21H

MAIN ENDP

END MAIN

;LAB-05 TASK-03

.MODEL SMALL

.STACK 100H

.DATA

X DB ?

Y DB ?

SUM DB ?

.CODE

MAIN PROC

;initizlize DS

MOV AX,@DATA

MOV DS,AX

; enter your code here

MOV AH,1

INT 21H

MOV X,AL ;taking 1st input in X

SUB X,30H

MOV AH,1

INT 21H

MOV Y,AL ;taking 1st input in X

SUB Y,30H

MOV CH,0

MOV CL,X

MOV SUM,0

WHILE:

MOV BL,Y

ADD SUM,BL

loop WHILE

MOV Al, SUM

ADD AL,30H

MOV AH,2

MOV DL,AL

INT 21H

;exit to DOS

MOV AX,4C00H

INT 21H

MAIN ENDP

END MAIN

;LAB-05 TASK-04

.MODEL SMALL

.STACK 100H

.DATA

;SUM DW ?

POS DW ?

MSG1 DB 'ENTER A HEX VALUE: $'

MSG2 DB 'CORRESPONDING DECIMAL IS $'

MSG3 DB 'REPEAT? : $'

MSG4 DB 'ILLEGAL CHARACTER, INSERT AGAIN: $'

.CODE

MAIN PROC

;initizlize DS

MOV AX,@DATA

MOV DS,AX

; enter your code here

WHILE:

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG1 ;printing 1st input

MOV AH,9

INT 21H

MOV AH,1

INT 21H

MOV BL,AL ;taking 1st input in BL

MOV AH,2

MOV DL,0DH

INT 21H

MOV DL,0AH

INT 21H ;Next line

CMP BL,40H

JLE DECIMAL

CMP BL,47H

JG WRONG\_INPUT

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG4 ;printing for repeat? :

MOV AH,9

INT 21H

WRONG\_INPUT: ;ILLEGAL CHARACTER, INSERT AGAIN:

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG4 ;printing for repeat? :

MOV AH,9

INT 21H

MOV AH,1

INT 21H

MOV BL,AL ;taking 1st input in BL

SUB BL,11H

MOV AH,2

MOV DL,0DH

INT 21H

MOV DL,0AH

INT 21H ;Next line

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG2 ;printing DECIMAL OUTPUTt

MOV AH,9

INT 21H

MOV AH,2

MOV DL,31H ; PRINTING 1

INT 21H

MOV AH,2

MOV DL,BL

INT 21H

JMP Repeat

DECIMAL:

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG2 ;printing DECIMAL OUTPUTt

MOV AH,9

INT 21H

MOV AH,2

MOV DL,BL

INT 21H

JMP Repeat

Repeat:

MOV AH,2

MOV DL,0DH

INT 21H

MOV DL,0AH

INT 21H ;Next line

MOV AX,@DATA

MOV DS,AX

LEA DX,MSG3 ;printing for repeat? :

MOV AH,9

INT 21H

MOV AH,1

INT 21H

MOV BL,AL ;taking repeat input

MOV AH,2

MOV DL,0DH

INT 21H

CMP BL,6Bh

MOV AH,2

MOV DL,0DH

INT 21H

MOV DL,0AH

INT 21H ;Next line

JE WHILE:

CMP BL,53H

JE end

JMP end

end:

;exit to DOS

MOV AX,4C00H

INT 21H

MAIN ENDP

END MAIN