.MODEL SMALL

.386

.DATA

ARRAY1 DB 99 DUP(?)

ARRAY2 DB 99 DUP(?)

RESULT1 DB 99 DUP(?)

RESULT2 DB 99 DUP(?)

A1 DB ?

MSG1 DB 10,13,"ENTER LENGTH OF ARRAYS (MAX 9) : $"

MSG2 DB 10,13,"ENTER ARRAY 1(MAX 2 DIGIT NUMBERS) : $"

MSG3 DB 10,13,"ENTER ARRAY 2(MAX 2 DIGIT NUMBERS) : $"

MSG4 DB 10,13,"ENTER ELEMENT $"

MSG5 DB 10,13,"THE SUM OF ARRAYS IS : $"

MSG6 DB 10,13,"THE DIFFERENCE OF ARRAYS IS : $"

.CODE

.STARTUP

;LENGTH

MOV DX,OFFSET MSG1

MOV AH,09

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV BX,0

MOV CX,2

L1 : SHL BL,4

MOV AH,01

INT 21H

CMP AL,39H

JBE L2

SUB AL,7

L2 : SUB AL,30H

ADD BL,AL

LOOP L1

MOV A1,BL

MOV DL,10

MOV AH,02

INT 21H

;ARRAY1

MOV DX,OFFSET MSG2

MOV AH,09

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV SI,OFFSET ARRAY1

MOV DI,OFFSET RESULT1

MOV CX,0

MOV CL,A1

LI1 :

MOV DX,OFFSET MSG4

MOV AH,09

INT 21H

MOV DL,A1

ADD DL,1

SUB DL,CL

ADD DL,30H

MOV AH,02

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV AH,01

INT 21H

MOV BX,0

CMP AL,39H

JBE LI1X

SUB AL,7H

LI1X:

SUB AL,30H

ADD BL,AL

SHL BL,4

MOV AH,01

INT 21H

CMP AL,39H

JBE LI1Y

SUB AL,7H

LI1Y:

SUB AL,30H

ADD BL,AL

MOV [SI],BL

MOV [DI],BL

INC SI

INC DI

MOV DL,10

MOV AH,02

INT 21H

LOOP LI1

MOV DL,10

MOV AH,02

INT 21H

;ARRAY2

MOV DX,OFFSET MSG3

MOV AH,09

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV SI,OFFSET ARRAY2

MOV CX,0

MOV CL,A1

LI2 :

MOV DX,OFFSET MSG4

MOV AH,09

INT 21H

MOV DL,A1

ADD DL,1

SUB DL,CL

ADD DL,30H

MOV AH,02

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV AH,01

INT 21H

MOV BX,0

CMP AL,39H

JBE LI2X

SUB AL,7H

LI2X:

SUB AL,30H

ADD BL,AL

SHL BL,4

MOV AH,01

INT 21H

CMP AL,39H

JBE LI2Y

SUB AL,7H

LI2Y:

SUB AL,30H

ADD BL,AL

MOV [SI],BL

INC SI

MOV DL,10

MOV AH,02

INT 21H

LOOP LI2

MOV DL,10

MOV AH,02

INT 21H

;EASING STUFF

MOV SI,OFFSET RESULT1

MOV DI,OFFSET RESULT2

MOV CL,A1

COPY :

MOV AL,[SI]

MOV [DI],AL

INC SI

INC DI

LOOP COPY

;ADDITION

MOV SI,OFFSET ARRAY2

MOV DI,OFFSET RESULT1

MOV CL,A1

SUM :

MOV AL,[SI]

ADD [DI],AL

INC SI

INC DI

LOOP SUM

;SUBTRACTION

MOV SI,OFFSET ARRAY2

MOV DI,OFFSET RESULT2

MOV CL,A1

DIFF :

MOV AL,[SI]

SUB [DI],AL

INC SI

INC DI

LOOP DIFF

;PRINT SUM

MOV DX,OFFSET MSG5

MOV AH,09

INT 21H

MOV SI,OFFSET RESULT1

MOV BX,0

MOV CL,A1

PSUM:

MOV BL,[SI]

SHR BL,4

CMP BL,9H

JBE LS1

ADD BL,7H

LS1 :

ADD BL,30H

MOV DL,BL

MOV AH,02

INT 21H

MOV BL,[SI]

AND BL,0FH

CMP BL,9H

JBE LS2

ADD BL,7H

LS2 :

ADD BL,30H

MOV DL,BL

MOV AH,02

INT 21H

MOV DL,','

MOV AH,02

INT 21H

MOV DL,' '

MOV AH,02

INT 21H

INC SI

LOOP PSUM

;PRINT DIFF

MOV DX,OFFSET MSG6

MOV AH,09

INT 21H

MOV SI,OFFSET RESULT2

MOV BX,0

MOV CL,A1

PDIFF:

MOV BL,[SI]

CMP BL,0

JGE LX

NEG BL

MOV DL,'-'

MOV AH,02

INT 21H

LX :

SHR BL,4

CMP BL,9H

JBE LS3

ADD BL,7H

LS3 :

ADD BL,30H

MOV DL,BL

MOV AH,02

INT 21H

MOV BL,[SI]

CMP BL,0

JGE LY

NEG BL

LY :

AND BL,0FH

CMP BL,9H

JBE LS4

ADD BL,7H

LS4 :

ADD BL,30H

MOV DL,BL

MOV AH,02

INT 21H

MOV DL,','

MOV AH,02

INT 21H

MOV DL,' '

MOV AH,02

INT 21H

INC SI

LOOP PDIFF

.EXIT

END