**מעבדה 6:**

מגישים:

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**קוד תרגיל 1:**

;lab6.asm

.MODEL SMALL

.STACK 100h

.DATA

;define variables

StrPost DB 'Enter a postfix expression:',13,10,'$'

num1 DW ?

num2 DW ?

res DW 0

resultStr DB ,13,10,' ',13,10,'$'

Ten DW 10

.CODE

MOV AX,@DATA

MOV DS,AX

;prints StrPost

MOV AH,9

MOV DX,OFFSET StrPost

INT 21h

MOV DI,7

;scan numbers and operators and placing the numbers in a stack

scan:

MOV AH,1

INT 21h

CMP AL,13

JE next

CMP AL,' '

JE scan

CMP AL,'/'

JE stackpopdiv

CMP AL,'\*'

JE stackpopmul

CMP AL,'-'

JE stackpopsub

CMP AL,'+'

JE stackpopadd

MOV AH,0

SUB AL,'0'

PUSH AX

JMP scan

;perform division between two numbers

stackpopdiv:

POP num1

POP num2

MOV AX,num2

MOV DX,0

DIV num1

PUSH AX

JMP scan

;perform multiplication between two numbers

stackpopmul:

POP num1

POP num2

MOV AX,num1

MUL num2

PUSH AX

JMP scan

;perform subtraction between two numbers

stackpopsub:

MOV AX,0

POP num1

POP num2

MOV AX,num1

SUB num2,AX

PUSH num2

JMP scan

;perform addition between two numbers

stackpopadd:

MOV AX,0

POP num1

POP num2

MOV AX,num1

ADD AX,num2

PUSH AX

JMP scan

;pop the value from the stack to AX

next:

POP AX

;a loop that builds the number in a string

next1:

MOV DX,0

DIV Ten

ADD DX,'0'

MOV resultStr[DI],DL

DEC DI

CMP AX,0

JNE next1

;prints resultStr

MOV AH,9

MOV DX,OFFSET resultStr

INT 21h

;end program

MOV AH,4Ch

INT 21h

END

**פלט תרגיל 1:**



