Qno 1

Code:

INCLUDE Irvine32.inc

.data

arr1 DWORD 1,2,3,4,5,6,7,8,9,10 ; fixed duplicate '5' count

arr DWORD 10 DUP(?)

msg1 BYTE "Original Array 1:",0

msg2 BYTE "New Array 2 (after stack transfer):",0

.code

main PROC

; ----- Print Original Array -----

mov edx, OFFSET msg1

call WriteString

call Crlf

mov esi, OFFSET arr1

mov ecx, LENGTHOF arr1

print\_arr1:

mov eax, [esi]

call WriteDec

call Crlf

add esi, TYPE arr1

loop print\_arr1

; ----- Move array1 → arr using stack -----

mov ecx, LENGTHOF arr1 ; FIXED: use LENGTHOF, not SIZEOF

mov esi, OFFSET arr1

mov edi, OFFSET arr

push\_loop:

push [esi]

add esi, TYPE arr1

loop push\_loop

mov ecx, LENGTHOF arr1

mov edi, OFFSET arr

pop\_loop:

pop eax

mov [edi], eax

add edi, TYPE arr

loop pop\_loop

; ----- Print New Array -----

call Crlf

mov edx, OFFSET msg2

call WriteString

call Crlf

mov esi, OFFSET arr

mov ecx, LENGTHOF arr

print\_arr2:

mov eax, [esi]

call WriteDec

call Crlf

add esi, TYPE arr

loop print\_arr2

exit

main ENDP

END main

Output:

A screen shot of a computer

AI-generated content may be incorrect.

QNo 2

Code:

INCLUDE Irvine32.inc

.data

num1 DWORD 10

num2 DWORD 20

num3 DWORD 30

.code

main PROC

push num1

push num2

push num3

pop eax

pop ebx

add eax,ebx

pop ebx

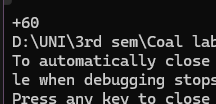
add eax,ebx

call writeint

exit

main ENDP

END main



Qno 3

Code:

INCLUDE Irvine32.inc

.data

array1 DWORD 2,4,6,8,10

array2 DWORD 5,7,9,11,13

sum1 DWORD ?

sum2 DWORD ?

.code

main PROC

call proc3

exit

main ENDP

proc1 proc

mov esi,offset array1

mov ecx,lengthof array1

mov eax,0

addingloop1:

add eax,[esi]

add esi,type array1

loop addingloop1

mov sum1,eax

ret

proc1 endp

proc2 proc

mov esi,offset array2

mov ecx,lengthof array2

mov eax,0

addingloop2:

add eax,[esi]

add esi,type array2

loop addingloop2

mov sum2,eax

ret

proc2 endp

proc3 proc

call proc1

call proc2

mov eax,sum1

add eax,sum2

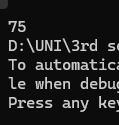
call writedec

ret

proc3 endp

END main

Output:



Qno 4

Code: INCLUDE Irvine32.inc

.data

msg1 byte "Enter a number : ",0

sum dword ?

.code

main PROC

call addition

exit

main ENDP

addition proc

mov edx,offset msg1

call writestring

call readint

mov ecx,eax

mov eax,0

add\_loop:

add eax,ecx

loop add\_loop

call writedec

mov sum,eax

ret

addition endp

END main

Output:

A screenshot of a computer

AI-generated content may be incorrect.

Qno 5

Code:

INCLUDE Irvine32.inc

.data

prompt BYTE "Enter a string: ",0

msgRev BYTE "Reversed string: ",0

str1 BYTE 50 DUP(0)

len DWORD ?

.code

main PROC

mov edx,offset prompt

call writestring

mov ecx , sizeof str1

mov edx, offset str1

call readstring

mov len,eax

mov ecx,len

mov esi,offset str1

push\_loop:

mov al, [esi]

push eax

inc esi

loop push\_loop

mov edx,offset msgRev

call writestring

mov ecx,len

pop\_loop:

pop eax

mov al,al

call writechar

loop pop\_loop

call crlf

exit

main ENDP

END main

Output:

A screenshot of a computer

AI-generated content may be incorrect.

QNo 6

Code:

INCLUDE Irvine32.inc

.data

prompt BYTE "Enter value of i,j,k : ",0

i dword ?

j dword ?

k dword ?

msgEq BYTE "The triangle is Equilateral.",0

msgIs BYTE "The triangle is Isosceles.",0

msgSc BYTE "The triangle is Scalene.",0

.code

main PROC

call readSides

call checkTri

exit

main ENDP

readSides proc

mov edx,offset prompt

call writestring

call readint

mov i, eax

call readint

mov j, eax

call readint

mov k, eax

readsides endp

checkTri proc

mov eax,i

mov ebx,j

mov ecx,k

cmp eax,ebx

jne notEq

cmp ebx,ecx

jne notEq

mov edx,offset msgEq

call writestring

call crlf

ret

notEq:

cmp eax,ebx

je isIso

cmp eax,ecx

je isIso

cmp ebx,ecx

je isIso

mov edx,offset msgSc

call writestring

call crlf

ret

isIso:

mov ebx,offset msgIs

call writestring

call crlf

ret

checkTri Endp

END main

Output:

A screen shot of a computer

AI-generated content may be incorrect.