**LAB 7 TASK SUBMISSIONS**

**Q1:**

INCLUDE Irvine32.inc

.data

array word 2, 5, 3, 5, 99, 54, 4, 34, 3, 5

array2 word 10 DUP(?)

.code

main PROC

mov ecx, 10

mov eax, 0

L1:

push array[eax]

add eax, 2

loop L1

mov ecx, 10

mov ebx, 0

mov eax, 0

L2:

pop ax

call writedec

call crlf

mov array[ebx], ax

add ebx, 2

loop L2

;call Clrscr

exit

main ENDP

END main

Graphical user interface, text

Description automatically generated

Q2:

INCLUDE Irvine32.inc

.data

array word 10,20,30

statement byte "Sum : ",0

sum word 0

.code

main PROC

mov ecx, 3

mov eax, 0

L1:

push array[eax]

add eax, 2

loop L1

mov ecx, 3

mov eax, 0

L2:

pop ax

add sum, ax

loop L2

mov ax, sum

mov edx, offset statement

call writestring

call writedec

call crlf

;call Clrscr

exit

main ENDP

END main

Graphical user interface, text, application

Description automatically generated

Q3:

INCLUDE Irvine32.inc

.data

arr1 dword 1,2,3,4,5

arr2 dword 1,4,9,16,25

statement byte "Sum : ",0

sum1 dword 0

sum2 dword 0

sum word 0

.code

main PROC

call s1

exit

main ENDP

s1 proc uses ecx eax ebx

mov ecx, 5

mov eax,0

L1:

mov ebx, arr1[eax]

add sum1, ebx

add eax, 4

loop L1

call s2

ret

s1 endp

s2 proc uses ecx ebx eax

mov ecx, 5

mov eax,0

L2:

mov ebx, arr2[eax]

add sum2, ebx

add eax, 4

loop L2

call s3

ret

s2 endp

s3 proc uses eax

mov eax, sum1

add eax, sum2

mov edx, offset statement

call writestring

call writedec

call crlf

ret

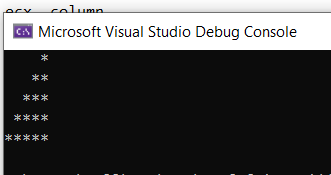
s3 endp

END main

Text

Description automatically generated with low confidence

Q4:



INCLUDE Irvine32.inc

.data

col dword 5

cont dword ?

p1 byte "\*",0

p2 byte " ",0

.code

main PROC

call pat

exit

main ENDP

pat proc

mov ecx, col

mov cont, 1

L1:

mov eax, ecx

mov ebx, col

mov ecx, col

L2:

cmp ebx, cont

jle pat

mov edx, offset p2

call writestring

jmp done

pat2:

mov edx, offset p1

call writestring

done:

dec ebx

loop L2

inc cont

call crlf

mov ecx, eax

loop L1

ret

pat endp

END main

Q5:

Text

Description automatically generated

INCLUDE Irvine32.inc

.data

col dword 5

counter dword ?

st1 byte 65,0

st2 byte " ",0

.code

main PROC

call patt

exit

main ENDP

patt proc

mov ecx, col

mov counter, 1

L1:

mov eax, ecx

mov ebx, col

mov ecx, col

L2:

cmp ebx, counter

jle pat

mov edx, offset st2

call writestring

jmp done

pat:

mov edx, offset st1

call writestring

inc st1

done:

dec ebx

loop L2

inc counter

call crlf

mov ecx, eax

loop L1

ret

patt endp

END main

Q6:

Text

Description automatically generated

INCLUDE Irvine32.inc

.data

column dword 5

counter dword ?

st1 byte "Enter any number: ",0

st2 byte "Sum from 1 : ",0

.code

main PROC

call sum

exit

main ENDP

sum proc

mov edx, offset st1

call writestring

call readint

mov ecx, eax

mov eax, 0

L1:

add eax, ecx

loop L1

mov edx, offset st2

call writestring

call writedec

call crlf

ret

sum endp

END main