

COAL

LAB07

23K2001

BCS-3J

Q1:

Lab07.asm

```
10      mov ebx, 0
11      mov ecx, 0
12      mov edx, 0
13
14      mov ecx, (LENGTHOF original)-1
15      mov esi, OFFSET original
16      mov edi, OFFSET copied
17
18      L1:
19          push [esi]
20          add esi, TYPE original
21          pop [edi]
22          add edi, TYPE copied
23      loop L1
24
25      mov edx, OFFSET msg
26      call writestring
27      call crlf
28      mov ecx, LENGTHOF copied
29      mov esi, OFFSET copied
30
31      L2:
32          mov ax, [esi]
33          call writehex
34          call crlf
35          add esi, TYPE copied
36      loop L2
```

Microsoft Visual Studio Debug

Copied Array:

```
00000010
00000020
00000030
00000040
00000050
00000060
00000070
00000080
00000090
00000100
```

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Press any key to close this window

Q2:

Lab07.asm

```
1  TITLE My Seventh Lab Tasks (Lab07.asm)
```

```
2  INCLUDE Irvine32.inc
```

```
3  .data
```

```
4      input BYTE "Enter a number for addition: ",0
```

```
5      ans DWORD 0
```

```
6      result BYTE "Sum : ",0
```

```
7  .code
```

```
8      main PROC
```

```
9          mov eax, 0
```

```
10         mov ebx, 0
```

```
11         mov ecx, 0
```

```
12         mov edx, 0
```

```
13  
14         mov ecx, 3
```

```
15     L1:
```

```
16         mov edx, OFFSET input
```

```
17         call writeString
```

```
18         call readint
```

```
19         PUSH eax
```

```
20     LOOP L1
```

```
21  
22     mov ecx, 3
```

```
23     L2:
```

```
24         pop eax
```

```
25         add ans, eax
```

```
26     LOOP L2
```



Microsoft Visual Studio Debug Console



Enter a number for addition: 5

Enter a number for addition: 10

Enter a number for addition: 1

Sum : 16

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Q3:

Lab07.asm

```
22
23     sum1 PROC
24         PUSH edi
25         PUSH ecx
26         mov eax, 0
27     L1:
28         add eax, [esi]
29         add esi, TYPE array1
30     LOOP L1
31
32         POP ecx
33         POP edi
34         call sum2
35         ret
36     sum1 ENDP
37
38     sum2 PROC
39         mov ebx, 0
40     L2:
41         add ebx, [edi]
42         add edi, TYPE array2
43     LOOP L2
44
45         call sum3
46         ret
47     sum2 ENDP
```



Microsoft Visual Studio Debug Console



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Q4:

Lab07.asm

```
22
23 pattern PROC
24     mov ecx, col
25 L1:
26     mov eax, counter
27     L2:
28         mov edx, OFFSET space
29         call writeString
30         dec eax
31         jnz L2
32         mov eax, count
33     L3:
34         mov edx, OFFSET star
35         call writeString
36         dec eax
37         jnz L3
38
39         call crlf
40         inc count
41         dec counter
42 loop L1
43
44     ret
45 pattern ENDP
46
```

Microsoft Visual Studio Debug

Enter number of coloumns: 5

```
*
**
***
****
*****
```

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Q5:

```
Lab07.asm  + X
13
14 Pattern PROC
15     mov edx, offset input
16     call writestring
17     call readint
18     mov col, eax
19     mov esi, 0
20
21     mov ecx, col
22     L1:
23         PUSH ecx
24         mov ecx, count
25         L2:
26             mov eax, alphabets[esi]
27             call writechar
28             add esi, 4
29         LOOP L2
30
31         inc count
32         call crlf
33         POP ecx
34     LOOP L1
35
36     ret
37 Pattern ENDP
```

Microsoft Visual Studio Debug Console

Enter number of columns: 5
A
BC
DEF
GHIJ
KLMNO

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Q6:

Lab07.asm

```
7      .code
8      main PROC
9      call sumToN
10
11     exit
12     main ENDP
13
14     sumToN PROC
15         mov edx, offset input
16         call writestring
17         call readint
18         mov ecx, eax
19         mov eax, 0
20         L1:
21             add eax, count
22             inc count
23         LOOP L1
24
25         call crlf
26         mov edx, offset result
27         call writestring
28         call writedec
29         ret
30     sumToN ENDP
31
32     END main
```

Microsoft Visual Studio Debug Console

Enter n: 5

Sum of elements 1 to n = 15
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