

Task 1:

```
.model small
.stack
.data
row db 48
col db 48
arr db 65,66,67,68,69,70,71,72,73,74,75,76,77,78,79
.code
```

```
mov ax,@data
mov ds,ax
mov bx,offset arr
add bx, 5*2
mov si,1
mov al,[bx+si]
mov dl,al
mov ah,02
int 21h
mov bx,0
mov bx,offset arr
add bx, 5*1
mov si,3
mov al,[bx+si]
mov dl,al
mov ah,02
int 21h
```

```
exit:
mov ah,4ch
int 21h
end
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>lab7a1
L
C:\>ml lab7a1.asm
Microsoft (R) Macro Assembler Version 6.11
Copyright (C) Microsoft Corp 1981-1993. All rights reserved.

Assembling: lab7a1.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
Copyright (C) Microsoft Corp 1984-1992. All rights reserved.

Object Modules [.obj]: lab7a1.obj
Run File [lab7a1.exe]: "lab7a1.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>lab7a1
LI
C:\>
```

TASK2:

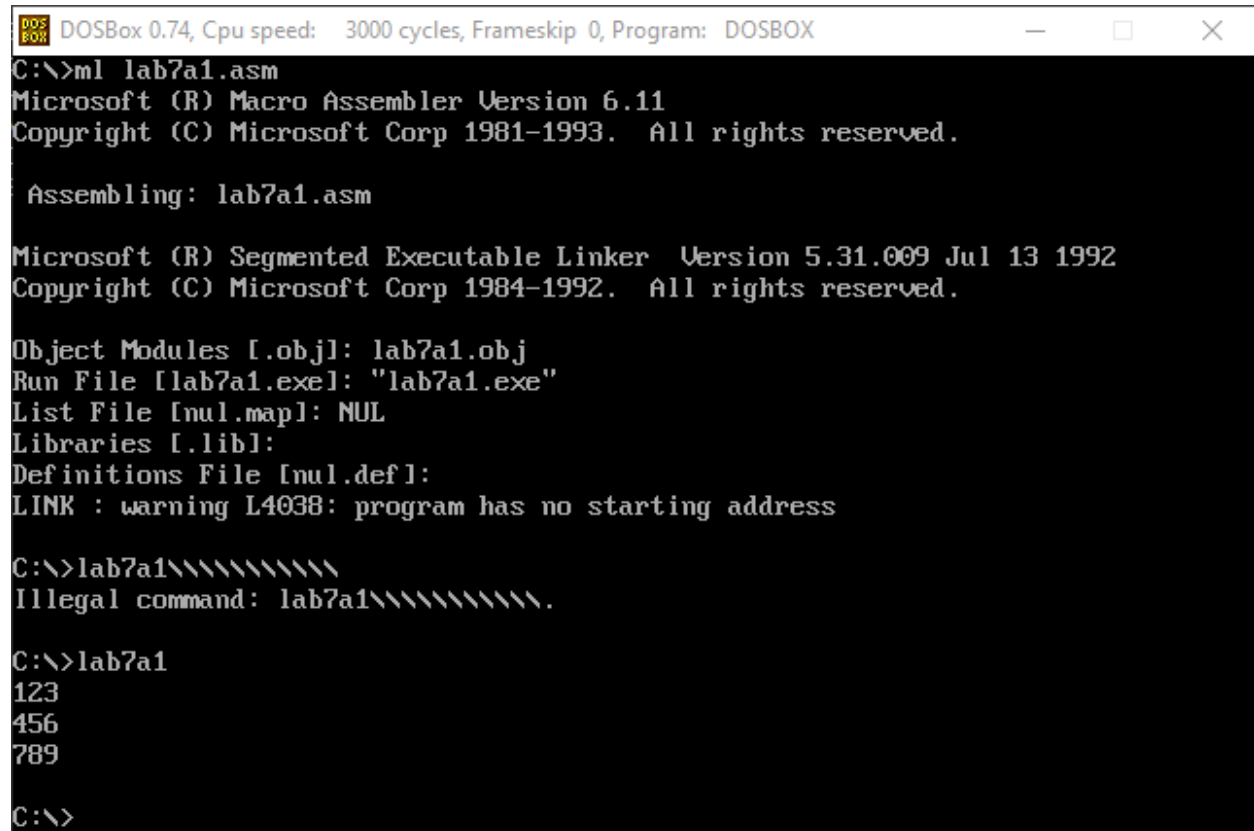
```
.model small
.stack
.data
```

```
arr db 49,50,51,52,53,54,55,56,57
.code
mov ax,@data
mov ds,ax
mov bx,3
mov si,offset arr
mov cx,3
l1:
push cx
mov cx,bx
l2:
mov dl,[si]
mov ah,02
int 21h
inc si
loop l2
```

```
MOV dl, 10
MOV ah, 02h
```

```
INT 21h
MOV dl, 13
MOV ah, 02h
INT 21h
pop cx
loop l1
```

```
exit:
mov ah,4ch
int 21h
end
```

A screenshot of a DOSBox window titled "DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX". The window shows a command prompt with the following text:

```
C:\>ml lab7a1.asm
Microsoft (R) Macro Assembler Version 6.11
Copyright (C) Microsoft Corp 1981-1993. All rights reserved.

Assembling: lab7a1.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
Copyright (C) Microsoft Corp 1984-1992. All rights reserved.

Object Modules [.obj]: lab7a1.obj
Run File [lab7a1.exe]: "lab7a1.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>lab7a1\
Illegal command: lab7a1\

C:\>lab7a1
123
456
789

C:\>
```

TASK3:

```
.model small
.stack
.data
;1:49
;2:50
;3:51
;4:52
;5:53
;6:54
;7:55
;8:56
;9:57
```

```
mat1 db 49,54,50,52,53,51,57,55,49
mat2 db 55,50,53,52,49,50,48,50,51
res db 9 dup(?)
```

```
.code
```

```
mov ax,@data
```

```
mov ds,ax
```

```
mov si,0
```

```
mov di,0
```

```
mov cx,9
```

```
l:
```

```
mov al,mat1[si]
```

```
add al,mat2[si]
```

```
mov res[di],al
```

```
inc si
```

```
inc di
```

```
loop l
```

```
mov bx,3
```

```
mov si,offset res
```

```
mov cx,3
```

```
l1:
```

```
push cx
```

```
mov cx,bx
```

```
l2:
```

```
mov dl,[si]
```

```
sub dl,48
```

```
mov ah,02
```

```
int 21h
```

```
inc si
```

```
loop l2
```

```
MOV dl, 10
```

```
MOV ah, 02h
```

```
INT 21h
```

```
MOV dl, 13
```

```
MOV ah, 02h
```

```
INT 21h
```

```
pop cx
```

```
loop l1
```

```
exit:
```

```
mov ah,4ch
```

```
int 21h
```

```
end
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
865
993

C:\>ml lab7a1.asm
Microsoft (R) Macro Assembler Version 6.11
Copyright (C) Microsoft Corp 1981-1993. All rights reserved.

Assembling: lab7a1.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
Copyright (C) Microsoft Corp 1984-1992. All rights reserved.

Object Modules [.obj]: lab7a1.obj
Run File [lab7a1.exe]: "lab7a1.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>lab7a1
887
865
994

C:\>_
```

TASK 4:

```
.model small
.stack
.data
```

```
msg1 db 'Coal lab$'
msg2 db 'FALL 2021$'
msg3 db 'SECTION T$'
.code
```

```
main proc
mov ax,@data
mov ds,ax
mov dx,0
lea dx,msg1
mov ah,09h
int 21h
```

```
call enter1
```

```
mov dx,0
lea dx,msg2
mov ah,09h
```

int 21h

call enter1
mov dx,0
lea dx, msg3
mov ah,09h
int 21h

mov ah,4ch
int 21h

main endp

enter1 proc

MOV dl, 10
MOV ah, 02h
INT 21h

MOV dl, 13
MOV ah, 02h
INT 21h

ret
enter1 endp

end main

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
C:\>ml lab7a1.asm
Microsoft (R) Macro Assembler Version 6.11
Copyright (C) Microsoft Corp 1981-1993. All rights reserved.

Assembling: lab7a1.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
Copyright (C) Microsoft Corp 1984-1992. All rights reserved.

Object Modules [.obj]: lab7a1.obj
Run File [lab7a1.exe]: "lab7a1.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:

C:\>lab7a1
Coal lab
FALL 2021
SECTION T
C:\>
```