

Task 1:

```
.model small
.stack
.data

.code
mov ax,@data
mov ds,ax
```

```
mov ax,6
mov bx,2
mul bx
add ax,48
mov ah,02h
mov dx,ax
int 21h
mov ah,4ch
int 21h
end
```

The screenshot shows the DOSBox 0.74 interface. The main window displays assembly code with addresses, hex values, and mnemonics. The registers window on the right shows the current state of the CPU registers. The command window at the bottom shows the execution of the program.

Assembly Code:

```
[3] source1 CS:IP
05E6:0000 B8E705 MOV AX,05E7
05E6:0003 8ED8 MOV DS,AX
05E6:0005 B80600 MOV AX,0006
05E6:0008 BB0200 MOV BX,0002
05E6:000B F7E3 MUL BX
05E6:000D 83C030 ADD AX,30
05E6:0010 B402 MOV AH,02
05E6:0012 8BD0 MOV DX,AX
05E6:0014 CD21 INT 21
05E6:0016 B44C MOV AH,4C
05E6:0018 CD21 INT 21
05E6:001A 894402 MOV WORD PTR [SI+02],AX
05E6:001D 894404 MOV WORD PTR [SI+04],AX
05E6:0020 894406 MOV WORD PTR [SI+06],AX
05E6:0023 89440C MOV WORD PTR [SI+0C],AX
05E6:0026 89440E MOV WORD PTR [SI+0E],AX
05E6:0029 B40B MOV AH,0B
05E6:002B FFEEA01 CALL DWORD PTR [01EA]
05E6:002F FB CLC
05E6:0030 EB01 JMP 0033
05E6:0032 F9 STC
```

Registers:

reg	value
AX	0000
CX	0000
DX	0000
SP	0400
BP	0000
SI	0000
DI	0000
ES	05E7
SS	05E8
CS	05E6
IP	0000
FL	0202
NU	UP
NZ	NA
FI	PL
PO	NC

Command Window:

```
C:\> Warning: TOOLS.INI not found
C:\> Warning: no CodeView information for 'C:\TN1.EXE'
```

TASK2

```
.model small
.stack
.data
Var1 dw 9
```

```
Var2 dw 2
r dw ?
q dw ?
.code
mov ax,@data
mov ds,ax
mov dx,0
```

```
mov ax,Var1
mov bx,Var2
div bx
```

```
mov q,ax
mov r,dx
```

```
mov dx,q
add dx,48
mov ah,02h
int 21h
```

```
mov dx,r
add dx,48
mov ah,02h
int 21h
```

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

```
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Assembling: tn2.asm

Microsoft (R) Segmented Executable Linker Version 5.31
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Object Modules [obj]: tn2.obj
Run File [tn2.exe]: "tn2.exe"
List File [nul.map]: NUL
Libraries [lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>tn2.exe
41
C:\>_
```

TASK3

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

```
.code
mov ah,01
int 21h
mov bl,al
mov ah,01
int 21h
mov bh,al
cmp bl,bh
je l1
mov dl,'n'
mov ah,02
int 21h
jmp exit
l1:
mov dl,'y'
mov ah,02
int 21h
exit:
mov ah,4ch
int 21h
```

end

```
C:\>
```

```
C:\>
```

```
C:\>
```

```
C:\>tn3.exe
```

```
67n
```

```
C:\>tn3.exe
```

```
33y
```

```
C:\>
```