```
;2
data segment
a dw 1312h
b dw 2212h
c dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
add ax,bx
mov cx,ax
mov c,cx
int 3
code ends
end start
```

line: 5    col: 10

drag a file here to open

**original source co...**

```
;2
data segment
a dw 1312h
b dw 2212h
c dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
add ax,bx
mov cx,ax
mov c,cx
int 3
```

**emulator: noname.bin**

file  math  debug  view  external  virtual devices  virtual drive  help

Load  reload  step back  single step  run  step delay ms: 0

registers

| | H | L |
|---|---|---|
| AX | 00 | 00 |
| BX | 00 | 00 |
| CX | 00 | 00 |
| DX | 00 | 00 |
| CS | 0100 | |
| IP | 0000 | |
| SS | 0100 | |
| SP | FFFE | |
| BP | 0000 | |
| SI | 0000 | |
| DI | 0000 | |
| DS | 0100 | |
| ES | 0100 | |

0100:0000

```
0100:0000  12 018 ↕
0100:0001  13 019 ‼
0100:0002  22 034 "
0100:0003  12 018 ↕
0100:0004  00 000 NULL
0100:0005  00 000 NULL
0100:0006  00 000 NULL
0100:0007  00 000 NULL
0100:0008  00 000 NULL
0100:0009  00 000 NULL
0100:000A  00 000 NULL
0100:000B  00 000 NULL
0100:000C  00 000 NULL
0100:000D  00 000 NULL
0100:000E  00 000 NULL
0100:000F  00 000 NULL
0100:0010  00 000 NULL
0100:0011  00 000 NULL
0100:0012  00 000 NULL
0100:0013  8E 142 Ä
0100:0014  D8 216 ╪
0100:0015  A1 161 ┴
```

0100:0000

```
ADC DL, [BP + DI]
ADC AH, [BP + SI]
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD 0000h
MOV DS, AX
MOV AX, [0000h]
ADD BX, [0002h]
ADD AX, BX
MOV CX, AX
MOV [0004h], CX
INT 3
NOP
NOP
NOP
NOP
NOP
...
```

screen  source  reset  aux  vars  debug  stack  flags

29°C  Smoke    Search    ENG IN    20:58  22-10-2022

emu8086 - assembler and microprocessor emulator 4.08

file   edit   bookmarks   assembler   emulator   math   ascii codes   help

new   open   examples   ▼   save   ▲   compile   emulate   calculator   convertor   options   help   about

```
;5
data segment
a dw 1312h
b dw 2212h
c dw ?
d dw ?
data ends
code segment
assume cs:code, ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
mul bx
mov cx,ax
mov c,dx
mov d,cx
code ends
end start
```

line: 20   col: 6   drag a file here to open

original source co...

```
;5
data segment
a dw 1312h
b dw 2212h
c dw ?
d dw ?
data ends
code segment
assume cs:code, ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
mul bx
mov cx,ax
```

emulator: noname.exe

Load   reload   step back   single step   run

file   math   debug   view   external   virtual devices   virtual drive   help

registers  H  L

AX  00  00
BX  00  00
CX  00  28
DX  00  00
CS  0711
IP  0000
SS  0710
SP  0000
BP  0000
SI  0000
DI  0000
DS  0700
ES  0700

0711:0000

0711:0000

```
0711:0  B8 184 ┤
0711:1  10 016 ▶
0711:2  07 007  BEEP
0711:3  8E 142  Ä
0711:4  D8 216  ╪
0711:5  A1 161  ¡
0711:6  00 000  NULL
0711:7  00 000  NULL
0711:8  8B 139  ï
0711:9  1E 030  ▲
0711:A  02 002  ☻
0711:B  00 000  NULL
0711:C  F7 247  ≈
0711:D  E3 227  π
0711:E  8B 139  ï
0711:F  C8 200  ╚
0711:20  89 137  ë
0711:21  16 022  ▬
0711:22  04 004  ♦
0711:23  00 000  NULL
0711:24  89 137  ë
0711:25  0E 014  ♫
```

```
MOV AX, 00710h
MOV DS, AX
MOV AX, [00000h]
MOV BX, [00002h]
MUL BX
MOV CX, AX
MOV [00004h], DX
MOV [00006h], CX
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
. . .
```

screen   source   reset   aux   vars   debug   stack   flags

29°C   AQI 282

ENG   IN

21:09   22-10-2022

```
data segment
a dw 1312h
b dw 22312h
c dw 3234h
d dw 6565h
e dw 5454h
t dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
mov cx,c
mov dx,d
add ax,bx
adc ax,cx
adc ax,dx
mov ax,e
adc ax,dx
mov t,ax
int 3
code ends
end start
```

original source co...

```
data segment
a dw 1312h
b dw 22312h
c dw 3234h
d dw 6565h
e dw 5454h
t dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov ax,a
mov bx,b
mov cx,c
```

emulator: noname.exe

Load   reload   step back   single step   run

file   math   debug   view   external   virtual devices   virtual drive   help

registers

| | H | L |
| --- | --- | --- |
| AX | 00 | 00 |
| BX | 00 | 00 |
| CX | 00 | 36 |
| DX | 00 | 00 |
| CS | 0711 | |
| IP | 0000 | |
| SS | 0710 | |
| SP | 0000 | |
| BP | 0000 | |
| SI | 0000 | |
| DI | 0000 | |
| DS | 0700 | |
| ES | 0700 | |

0711:0000

```
0711:0  B8 184 ┤
0711:1  10 016 ▼
0711:2  07 007  BEEP
0711:3  8E 142 Å
0711:4  D8 216 ╪
0711:5  A1 161  í
0711:6  00 000 
0711:7  00 000 
0711:8  8B 139 ï
0711:9  1E 030 ▲
0711:A  02 002 ●
0711:B  00 000 
0711:C  8B 139 ï
0711:D  0E 014 ♫
0711:E  04 004 ♦
0711:F  00 000 
0711:20 8B 139 ï
0711:21 16 022 ▬
0711:22 06 006 ♠
0711:23 00 000 
0711:24 B1 177 ▒
0711:25 05 005 ♣
```

0711:0000

```
MOV AX, 00710h
MOV DS, AX
MOV AX, [00000h]
MOV BX, [00002h]
MOV CX, [00004h]
MOV DX, [00006h]
MOV CL, 05h
ADD AX, BX
ADC AX, CX
ADC AX, DX
MOV AX, BX
ADC AX, DX
MOV DX, [00008h]
MOV DX, [0000Ah], AX
INT 3
NOP
NOP
NOP
NOP
NOP
NOP
...
```

screen   source   reset   aux   vars   debug   stack   flags

line: 1   col: 3   drag a file here to open

```
;3
data segment
  a dw 1312h
  b dw 2212h
  c dw ?
data ends
code segment
assume cs:code,ds:data
start:
  mov ax,data
  mov ds,ax
  mov ax,a
  mov bx,b
  sub ax,bx
  mov cx,ax
  mov c,cx
  int 3
code ends
end start
```

```
;6.2
data segment
a dw 1312h
b dw 2212h
c dw ?
d dw ?
data ends
code segment
assume cs:code, ds:data
start:
mov ax,data
mov ds,ax
mov bx,b
mov ax,a
idiv bx
mov cx,ax
mov c,cx
mov d,dx
code ends
end start
```

```
;6
data segment
a dw 1312h
b dw 2212h
c dw ?
d dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov bx,b
div bx
mov cx,ax
mov c,cx
mov d,dx
code ends
end start
```

original source co...

```
;6
data segment
a dw 1312h
b dw 2212h
c dw ?
d dw ?
data ends
code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov bx,b
div bx
mov cx,ax
mov c,cx
mov d,dx
```

emulator: noname.exe_

file   math   debug   view   external   virtual devices   virtual drive   help

Load   reload   step back   single step   run

0711:0000

registers

|     | H | L |
|-----|----|----|
| AX | 00 | 00 |
| BX | 00 | 00 |
| CX | 00 | 25 |
| DX | 00 | 00 |
| CS | 0711 | |
| IP | 0000 | |
| SS | 0710 | |
| SP | 0000 | |
| BP | 0000 | |
| SI | 0000 | |
| DI | 0000 | |
| DS | 0700 | |
| ES | 0700 | |

```
0711:0          B8 184  ┤
0711:1  10 016  ▼
0711:2  07 007  BEEP
0711:3  8E 142  Ä
0711:4  D8 216  ╪
0711:5  8B 139  ï
0711:6  1E 030  ▲
0711:7  02 002  ☻
0711:8  00 000  
0711:9  00 000  NULL
0711:A  F3 243  ≤
0711:B  F7 247  ≈
0711:C  8B 139  ï
0711:D  C8 200  ╚
0711:E  89 137  ë
0711:F  0E 014  ♫
0711:0  04 004  ♦
0711:1  00 000  NULL
0711:2  89 137  ë
0711:3  16 022  ▬
0711:4  06 006  ♠
0711:5  90 144  É
```

0711:0000

```
MOV AX, 0071 0h
MOV DS, AX
MOV BX, [00002h]
DIV BX
MOV CX, AX
MOV [00004h], CX
MOV [00006h], DX
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
...
```

screen   source   reset   aux   vars   debug   stack   flags

line: 19   col: 5

29°C
Smoke

Search

ENG
IN

21:14
22-10-2022

```asm
;?
data segment
    string1 dw 14h,10h,5h,15h,21h
data ends
code segment
    assume cs:code,ds:data
start:
    mov ax,data
    mov ds,ax
    mov bx,5
up1: lea si,string1
    mov cx,4
up: mov ax,[si]
    cmp ax,[si+2]
    jc down
    xchg ax ,[si+2]
    xchg ax ,[si]
down:add si,2
    dec bx
    jnz up1
    loop up
    int 3
code ends
end start
```

file   edit   bookmarks   assembler   emulator   math   ascii codes   help

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```
01  data segment
02  a dw 0064h
03
04  resultH dw ?
05
06  resultL dw ?
07
08  data ends
09
10  code segment
11
12  assume ds: data, cs: code
13
14  start:
15
16  mov ax, data
17
18  mov ds, ax
19
20  mov ax, a
21
22  mov bx, a
23
24  mul bx
25
26  mul bx
27
28  mov resultH, dx
29
30  mov resultL, ax
31
32  int 3
33
34  code ends
35
36  end start
```

original source co...

```
01  data segment
02  a dw 0064h
03
04  resultH dw ?
05
06  resultL dw ?
07
08  data ends
09
10  code segment
11
12  assume ds: data, cs: cod
13
14  start:
15
16  mov ax, data
17
18  mov ds, ax
```

emulator: noname.exe

file   math   debug   view   external   virtual devices   virtual drive   help

Load   reload   step back   single step   run   step delay ms: 0

registers
| | H | L |
| AX | 00 | 00 |
| BX | 00 | 00 |
| CX | 00 | 28 |
| DX | 00 | 00 |
| CS | 0711 | |
| IP | 0000 | |
| SS | 0710 | |
| SP | 0000 | |
| BP | 0000 | |
| SI | 0000 | |
| DI | 0000 | |
| DS | 0700 | |
| ES | 0700 | |

0711:0000

```
0711:0   B8 184  ┬
0711:1   10 016  ▼
0711:2   07 007  BEEP
0711:3   8E 142  Ä
0711:4   D8 216  ╪
0711:5   A1 161  ┴
0711:6   00 000  ┤
0711:7   00 000  ┤
0711:8   8B 139  ï
0711:9   1E 030  ▲
0711:A   00 000  NULL
0711:B   00 000  NULL
0711:C   F7 247  ≈
0711:D   E3 227  π
0711:E   F7 247  ≈
0711:F   E3 227  π
0711:0   89 137  ë
0711:1   16 022  ▬
0711:2   02 002  ☻
0711:3   00 000  NULL
0711:4   A3 163  ú
0711:5   04 004  ◆  NULL
```

0711:0000

```
MOV AX, 0071 0h
MOV DS, AX
MOV AX, [00000h]
MOV BX, [00000h]
MUL BX
MUL BX
MOV [00002h], DX
MOV [00004h], AX
INT 3
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
...
```

screen   source   reset   aux   vars   debug   stack   flags

drag a file here to open

line: 7   col: 7