



IP



SP



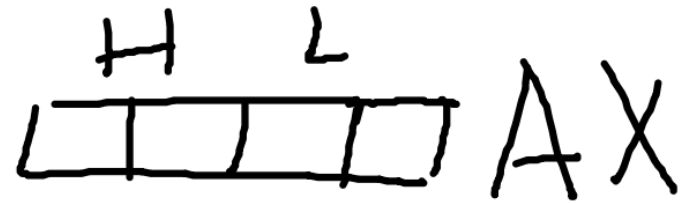
SI



DI



BP



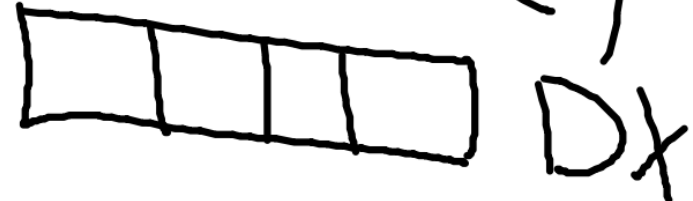
AX



BX



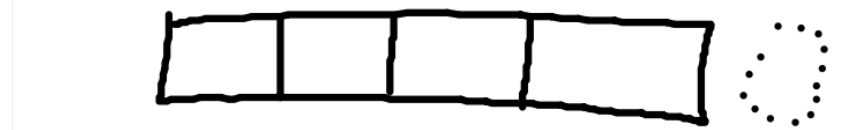
CX



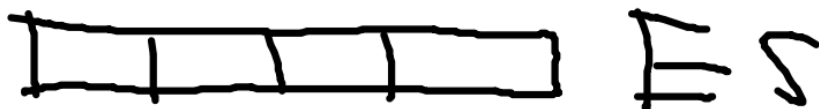
DX



FLAG



SEGMENT
+ OFFSET
=



ADATMOZGATÓ

MOV

AX, 12

MOV

AH, (12 * 4) - 8

MOV

DL, 7FH

MOV

SI, 0BABAH

MOV

DL, 'Q'

MOV

CH, 00001111B

MOV

AX, -32776

MOV

BX, AX

XCHG

DH, CL

MOV

AL, [1234H]

MOV

AX, [1234H]

MOV

[1234H], AX

MOV

AH, [BX]

MOV

AH, ES: [BX]

MOV

BX, [1234H + BX]

MOV

[1234], 17

byte ptr r

WORD PTR

MOV

[BX + SI], DX

push

16 bites

pop

16 bites

pushf

i duma

popf

IN

AL, 8bitscim

IN

AX, 8bitscim

IN

AL, [DX]

OUT

8bitscim, AL

OUT

[DX], AX

ARITMETIKAI

ADD CÉL, FORRÁS

ADC - - -

SUB - - -

SBB - - -

INC



DEC



NEG



MUL

8bits $\rightarrow AL * 8b \rightarrow AX$

16bits $\rightarrow AX * 16bit \rightarrow DX:AX$

IMUL

—||—

DIV

8bits $AX:8b \rightarrow H AL$
 $\rightarrow M AH$

16bits $DX:AX:16b \rightarrow H AX$
 $\rightarrow M DX$

IDIV

CMP

AL, 'B'

LOGIKA)

AND

AX, BX

OR

CL, 7

XOR

[BX], SI

NOT byte ptr [DI]

$$\begin{array}{r} 10101100 \\ \text{AND } 11110000 \\ \hline 10100000 \end{array}$$

$$\begin{array}{r} 10101100 \\ \text{OR } 11100000 \\ \hline 11111100 \end{array}$$

$$\begin{array}{r} 10101100 \\ \text{XOR } 11110000 \\ \hline 01011100 \end{array}$$

XOR AX, AX

OR AX, AX

TEST AL, 00001111B

AND BP, DS:[1234]

IP-t módosító utasítások

JMP \nearrow 2 byte -128...127
 \rightarrow 3 byte \rightarrow 64 K-n belülré
 \searrow (NEAR)
5 byte
(FAR)

CALL \nearrow 3 \rightarrow PUSH IP
 \searrow 5 \rightarrow PUSH CS
PUSH IP

RET \rightarrow POP IP

RETF POP IP
 POP CS

RET KONSTANS
 └

$J_F L$

C, NC, Z, NZ, S, NS

PO, PE

NPE, NPO

$YCXZ$

JA, JAE, JB, JBE
JNBE, JNB JNAE, JNA

JG, JGE, JL, JLE
JNLE, JNL, JNGE, JNG

JO, JNO

LOOP \rightarrow $CX \leftarrow CX - 1$
JMP IF $CX \neq 0$

```
MOV CX, 5  
VISSZA:  
:  
:  
:  
LOOP VISSZA
```

MOV CX, 0

ELSCIK:

PUSH CX

BELCIK: MOV CX, 32

LOOP BELCIK
POP CX
LOOP ELSCIK

MASCIK: MOV DL, 8

⋮

DEC DL

JNZ MASCIK

DB 3,0,-8,6FH

DB $(3 \times 8) - 7$

DB
|
L

DB
|
L aci, baci

MILKE LABEL BYTE

DB 'Lakatos_Mic,'

|||

MILKE DB 'L....'

DESO DW 63125, -1, 0, 7

DD -2, 8, 3.125

DQ 64.3, 9, 5,

DT 0.0032

INT 21H



PUSH R

PUSH CS

PUSH IP

FLAG MONOSITAS

IRET



POP IP

POP CS

POP R

0000:0000

Eggs

CBW

CWD

CLI

CLC

STI

STC

HLT

CMC

CWD

STD

MOV SI, OFFSET FORRAS

MOV DI, OFFSET CEL

MOV CX, HOSSZ

MC:

MOV

AL, [SI]

MOV

[DI], AL

INC

SI

INC

DI

Loop

MC

ES

MOVSB

REP

String kezelő utasítások

$\text{MOVSB} \rightarrow \text{REP MOVSB}$

$\text{LODSB} \rightarrow \begin{matrix} \text{AL} \\ \text{AX} \leftarrow [\text{SI}] \end{matrix} \begin{matrix} \text{SI} \leftarrow \text{SI} + 1 \\ \text{SI} \leftarrow \text{SI} + 2 \end{matrix}$

$\text{STOSB} \rightarrow \text{ES:}[\text{DI}] \leftarrow \begin{matrix} \text{AL} \\ \text{AX} \end{matrix} \begin{matrix} -1/- \\ -1/- \end{matrix}$

CMPSB

REPE, REPZ
 REPNE, REPNI

SCAS^B_w

ES:[DI]-AL

DOS HASZNÁLAT

INT 10H → Video BIOS

INT 16H → Tastt ROM BIOS

INT 21H → DOS

AH ← kérdés kódja

8.3

- BAT

- EXF

- COM

INT 33H ← egyébkorok
AX !!! ← 1 Show cursor
← 2 Hide cursor
← 3 BX → gombok
(X → X)
DX → 4 } kárpis
74

INT 16H

0 ← leütēs vārdš

↓
AL ← karakters

1 ← vīzspāla x

Z ← vīkšleūtēš

NZ ēš AL ← leūtēs van

$Z \leftarrow \text{shiftstatus}$

↓

AL

video kezelés

INT 10H

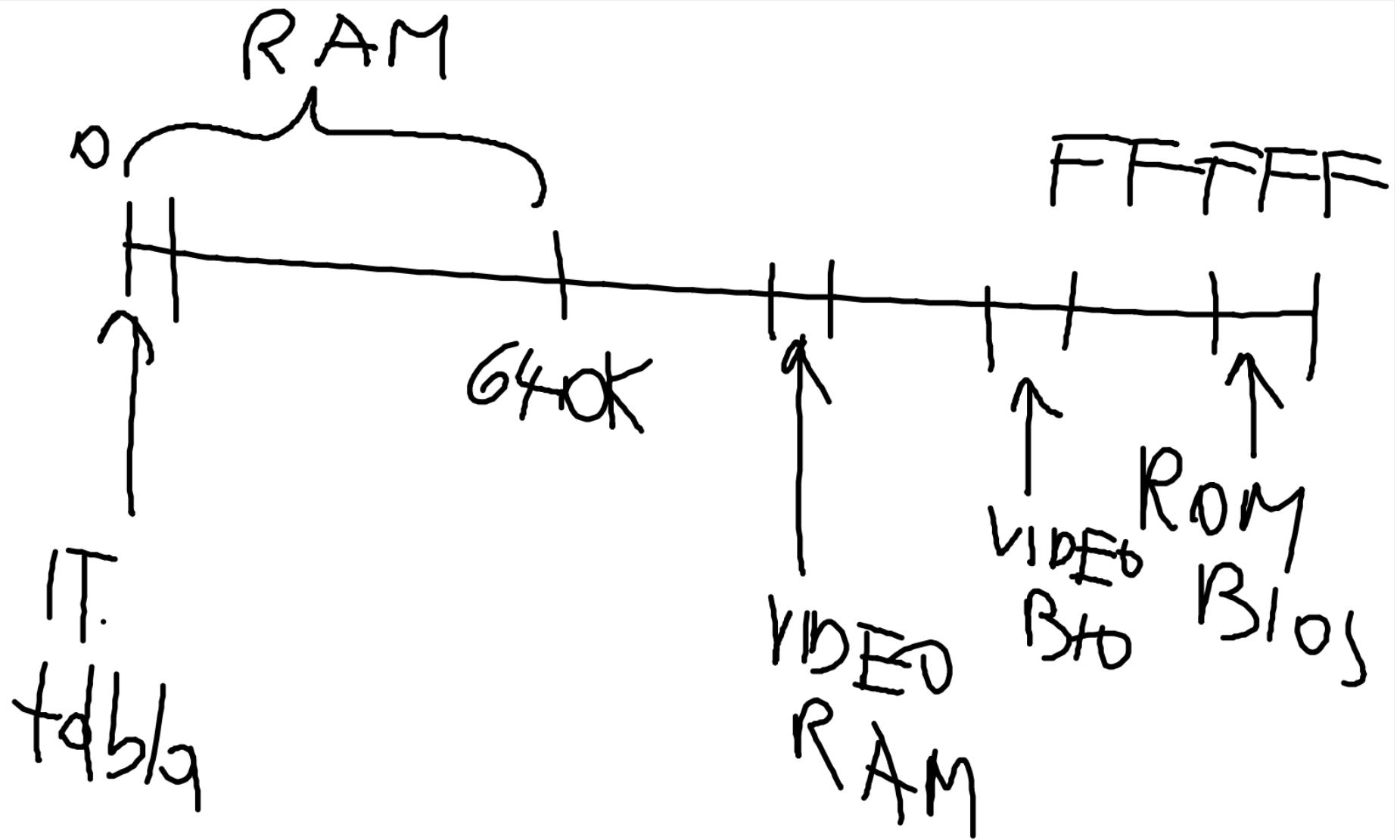
AH ← 0 video mód beállítás

AL ←

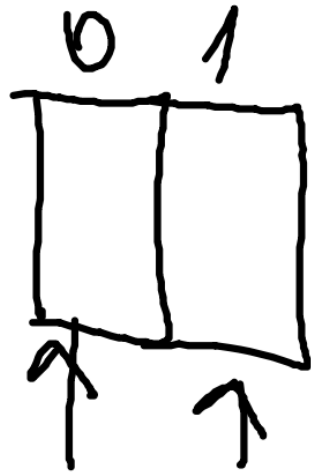
video mód kódja

80x25 és színes kódja 3

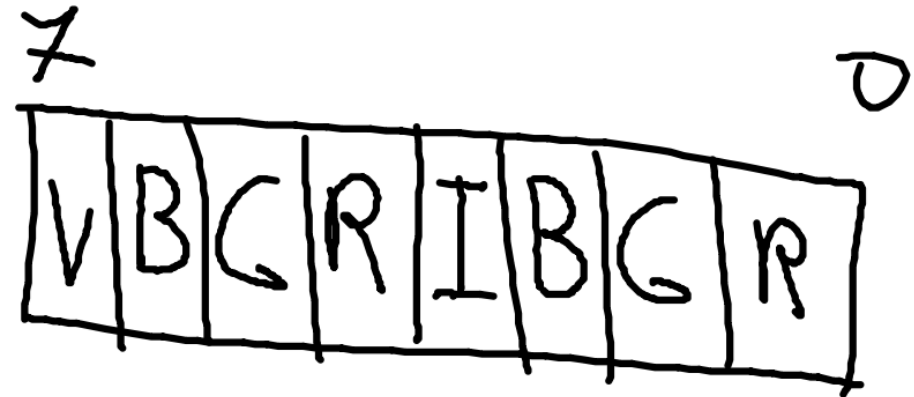
320x200 és grafikus k. 13H



B8000H \rightarrow segments offset
B800 0



Karakter status \rightarrow



A0000H \rightarrow A000 ^{Segment} offset
0

3(8) színszám regiszter

3(9) RGB értékek

Mov DX, 3C8H

Mov AL,

Out DX, AL

Inc DX

Mov AL,R

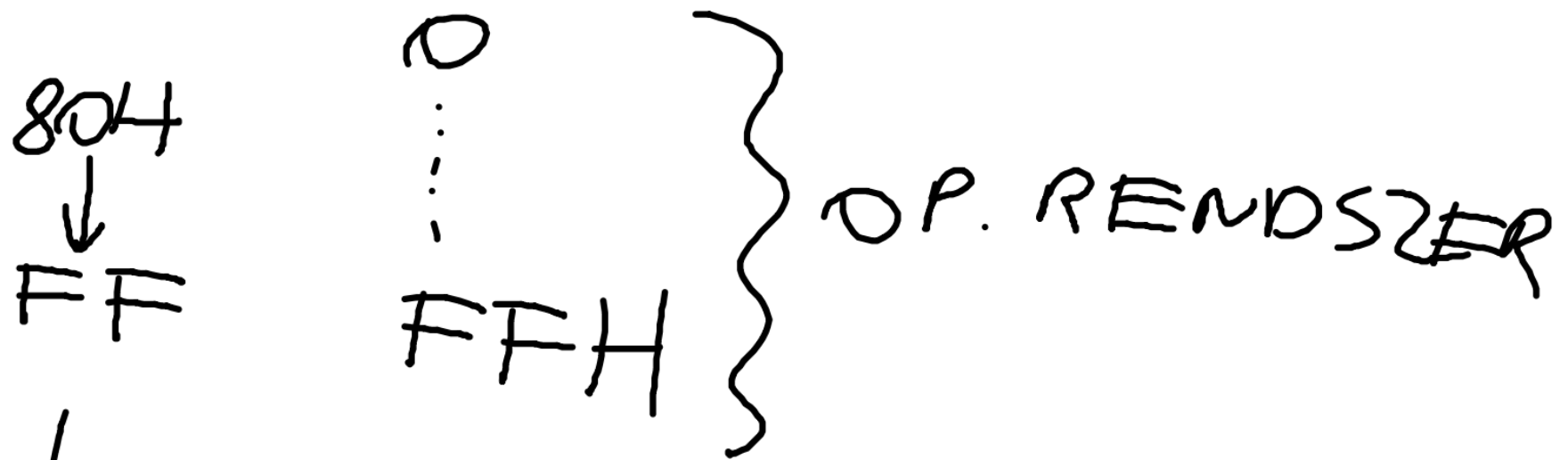
Out DX, AL

Mov AL,C

Out DX, AL

Mov AL,B

Out DX, AL



↳ parancs paraméterek

80H → a paraméterek bájtszáma

81H → határoló karakter

82H → a paraméter bájtoi

MOV SI, 80H

LODSB

CMP AL, 0

JZ NINCS

INC SI

LODSB

...

ORG 80H

DARAB: DS 1

DS 1

PARAM: DS 126

START:

CMP [DARAB], 0