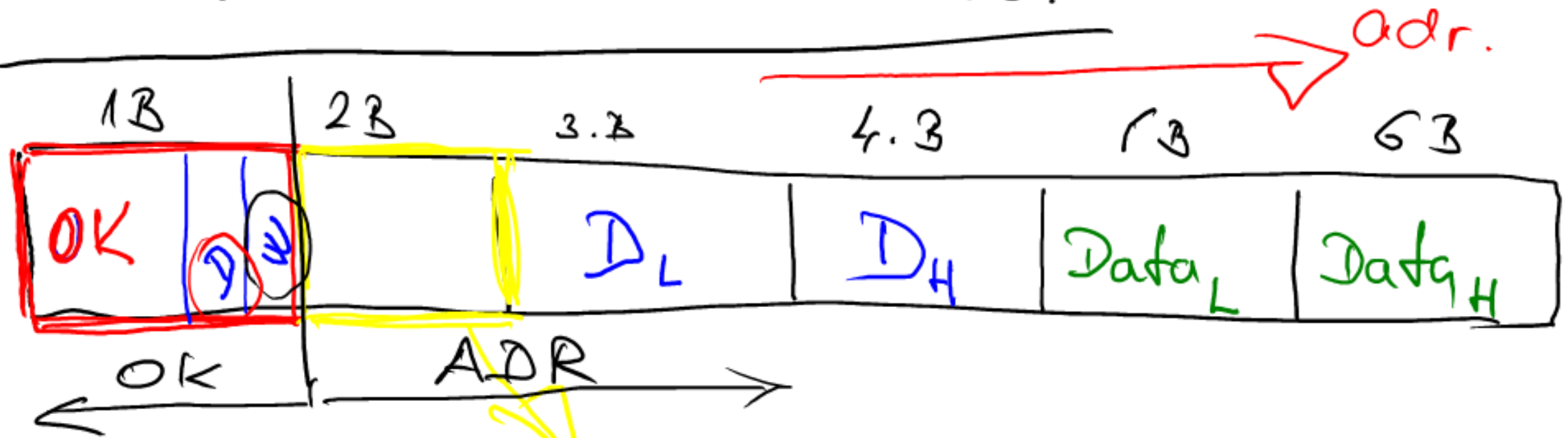


Štruktúra instrukcií i8086:



- | | | | |
|---|---|---|-----------------------------|
| 0 | 0 | - | v pamäti bez D ^o |
| 0 | 1 | - | 8 D ^o |
| 1 | 0 | - | 16 D ^o |
| 1 | 1 | - | v registri (R/M) |

Log. adr.: BAS : RA

SEG : OFFSET

$\left[\begin{array}{c} \text{seg. reg} \\ \text{DS} \\ \text{ES} \\ \text{SS} \\ \text{CS} \end{array} \right]$: \textcircled{D}

$D + \text{index}$
 $D + \text{base}$
 $D + \text{index} + \text{base}$

Phys. adr.: $16 * \text{BAS} + \text{RA}$

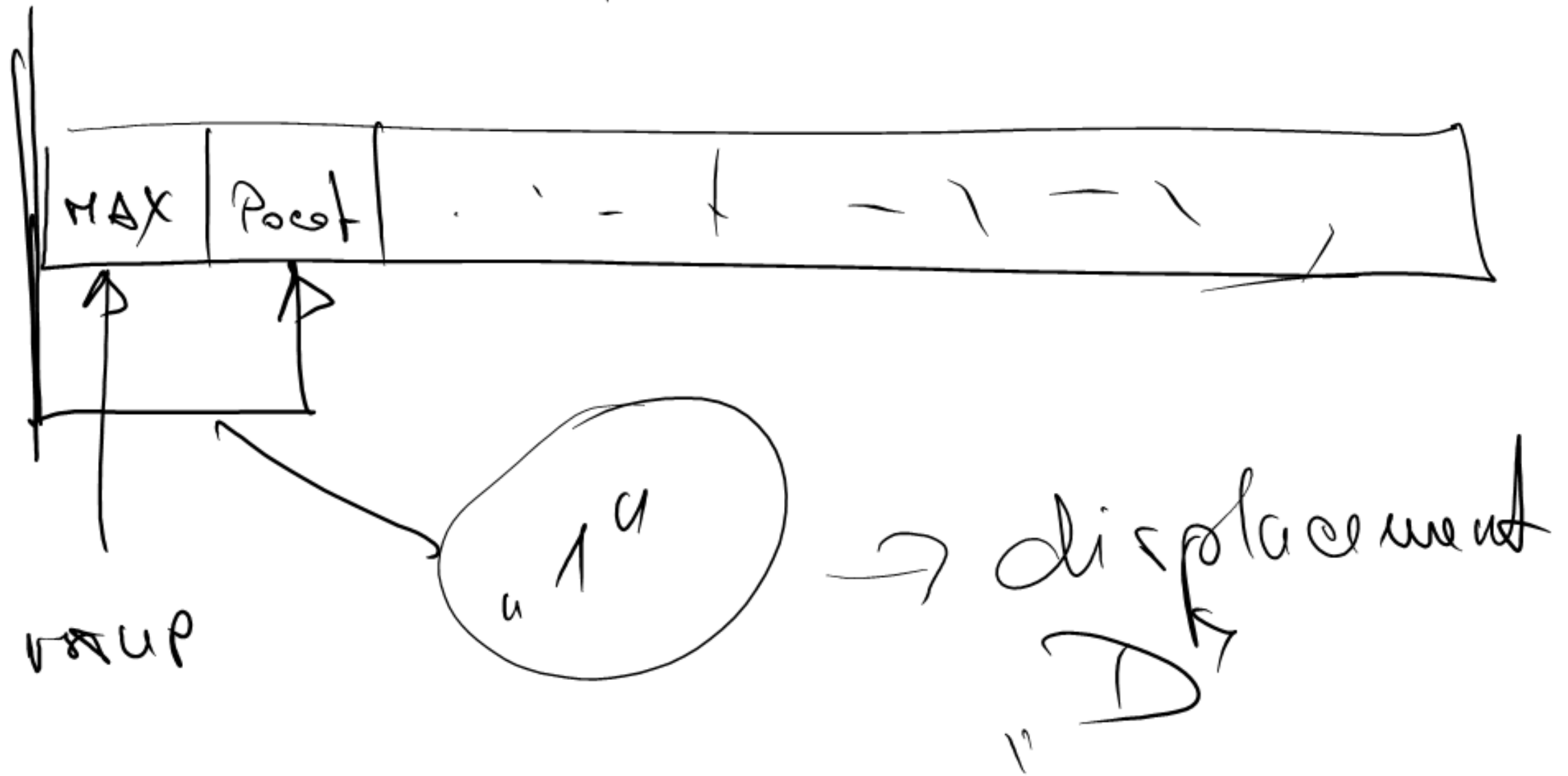
| REG | W = \emptyset | W = 1 |
|-------|-----------------|-------|
| 0 0 0 | AL | AX |
| 0 0 1 | CL | CX |
| 0 1 0 | DL | DX |
| 0 1 1 | BL | BX |
| 1 0 0 | AH | SP |
| 1 0 1 | CH | BP |
| 1 1 0 | DH | SI |
| 1 1 1 | BH | DI |

$D = \emptyset \rightarrow$ 2droy
 $D = 1 \rightarrow$ cief

| R / M | MOD = 00 | MOD = 01 | MOD = 10 |
|-------|----------|----------|----------|
| 0 0 0 | BX + SI | } + D8 | } D16 |
| 0 0 1 | BX + DI | | |
| 0 1 0 | BP + SI | | |
| 0 1 1 | BP + DI | | |
| 1 0 0 | SI | | |
| 1 0 1 | DI | | |
| 1 1 0 | D16 | BP + D8 | BP + D16 |
| 1 1 1 | BX | + D8 | + D16 |

MOV AL, [SI]

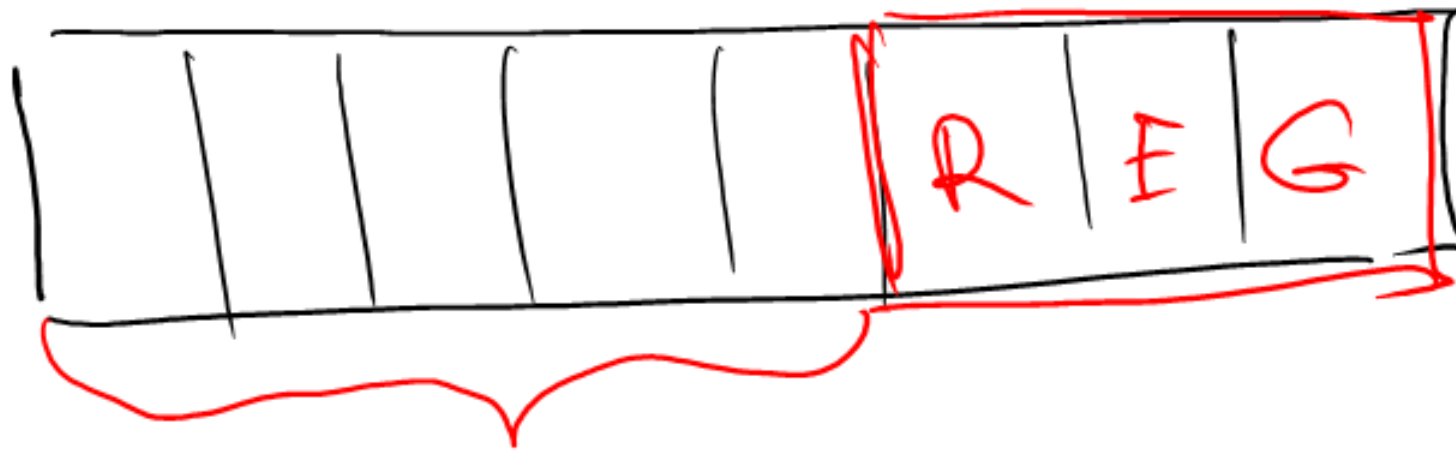
MOV CL, POCE



AB:

- radiac

- INC reg

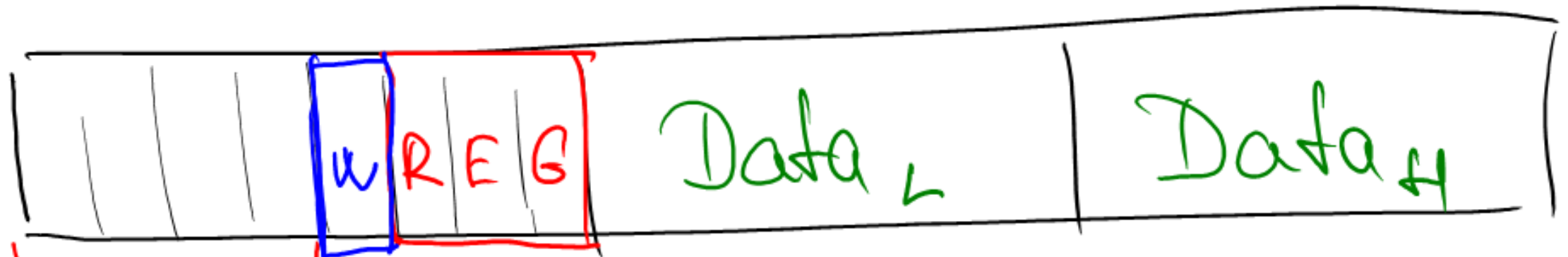


OK INC

2-3 B :

MOV AL, 2FH \longrightarrow 2B

MOV AX, 4CFFH \longrightarrow 3B



Kod
MOV

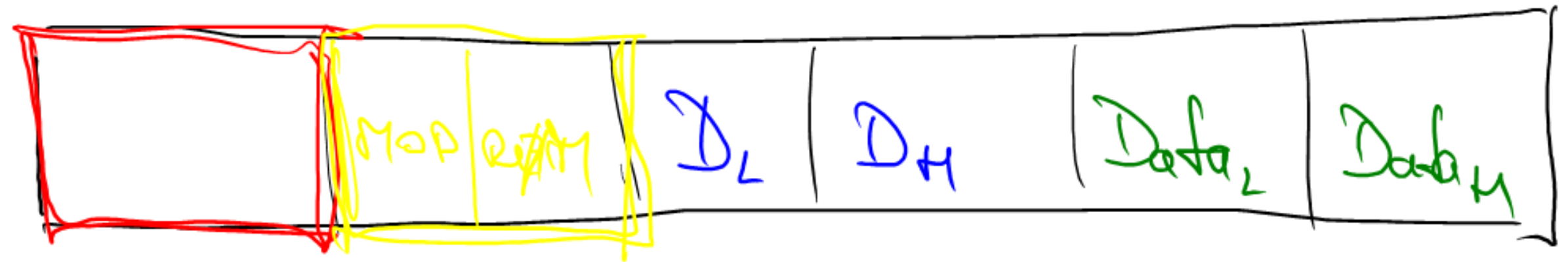
2 - 4 3

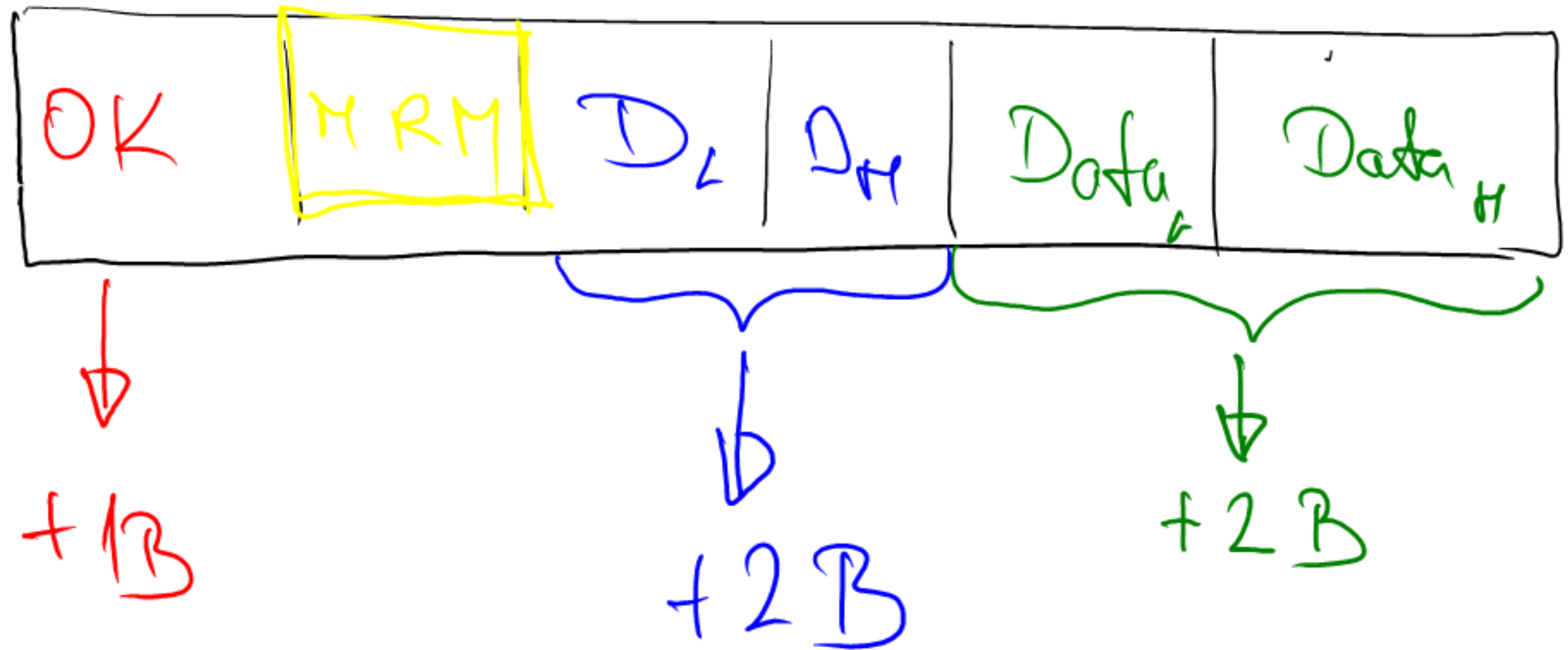
MOV R, M
MOV M, R
MOV R₁, R₂



3-GB

MOV M, data





+ 1 B \rightarrow špecifikácia veľkosti adresy
 + 1 B \rightarrow operandy
 + 1 B \rightarrow "scale"

14 B

MOV DX, POLE[SI]

8B 94 (22 03)



OK
R/M
16b

EA = SI + D16

Typy instrukcií (operací):

- presuny
- aritmetické
- logické
- posuny
- slobové
- volání podprogramů
- přerušenia
- radiace

① Presunové instrukce :

MOV cíl, zdroj
 dst, src

univerzální :

universal presumed instr.

MOV $R_1/M, M/R_2$

$R \leftarrow M$

$M \leftarrow R$

$R_1 \leftarrow R_2$

(2-4) B

MOV R/H, data

3-6 B



2.

MOV R, data

MOV AL, 20H



2.

(2-3) B

MOV AC, M

MOV M, AC

o

MOV AX, SEG DATA

MOV DS, AX

MOV

SR, R/M

MOV

R/M, SR

MOV AX, DS

MOV SR, DS

~~X~~CHG

$R_1 \quad R_2 \mid M$

$R_1 \longleftrightarrow R_2$
 $R \longleftrightarrow M$

$(2-4)B$

~~X~~CHG

AC, R

$(1B)$

tasobmil

PUSH

PUSH

R/M

SP

SP

$SP \leftarrow SP - 2$

$M(SP) \leftarrow R/M$

$R/M \leftarrow M(SP)$
 $SP \leftarrow SP + 2$

POP

↑
address

↑
address



PUSH

POP

R | M

-

2 ÷ 4 3

R

1B

SR

F

$\left[\begin{array}{l} \text{PUSH BX} \\ \text{POP AX} \end{array} \right] \equiv \underline{\text{MOV AX, BX}}$

Vstupna / výstupní instr.

IN port

OUT port

$AC \leftarrow \langle \text{port} \rangle$

$\langle \text{port} \rangle \leftarrow AC$

IN AC, (DX)

registr
adresy portu

OUT (DX), AC