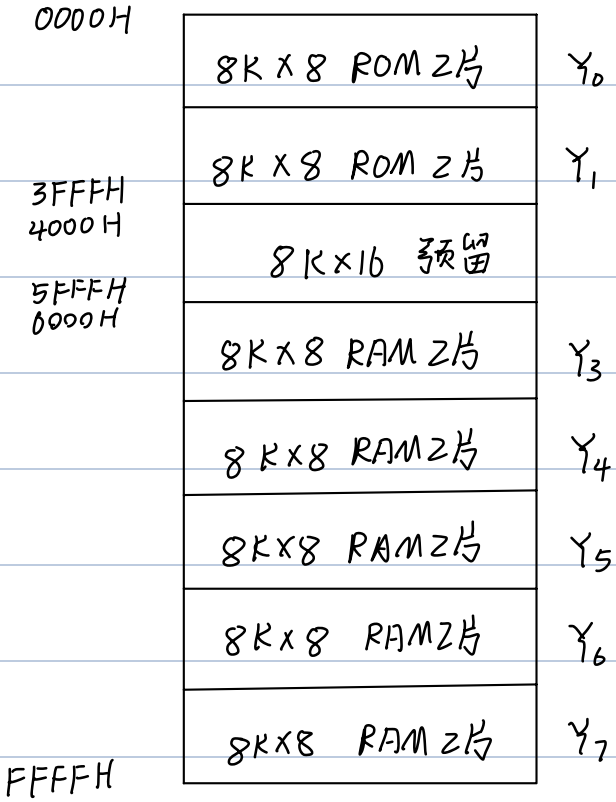
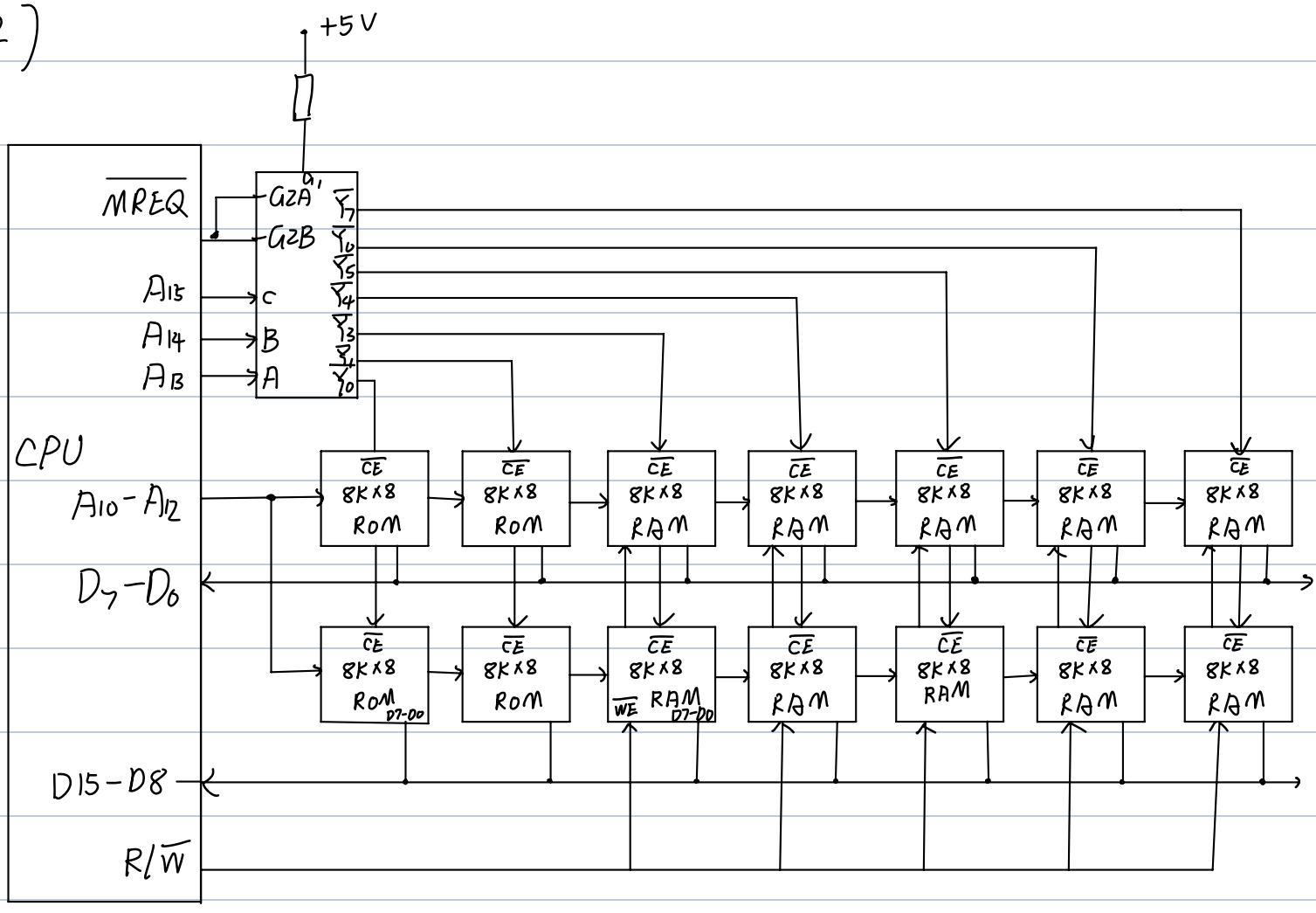
3.14 (1)

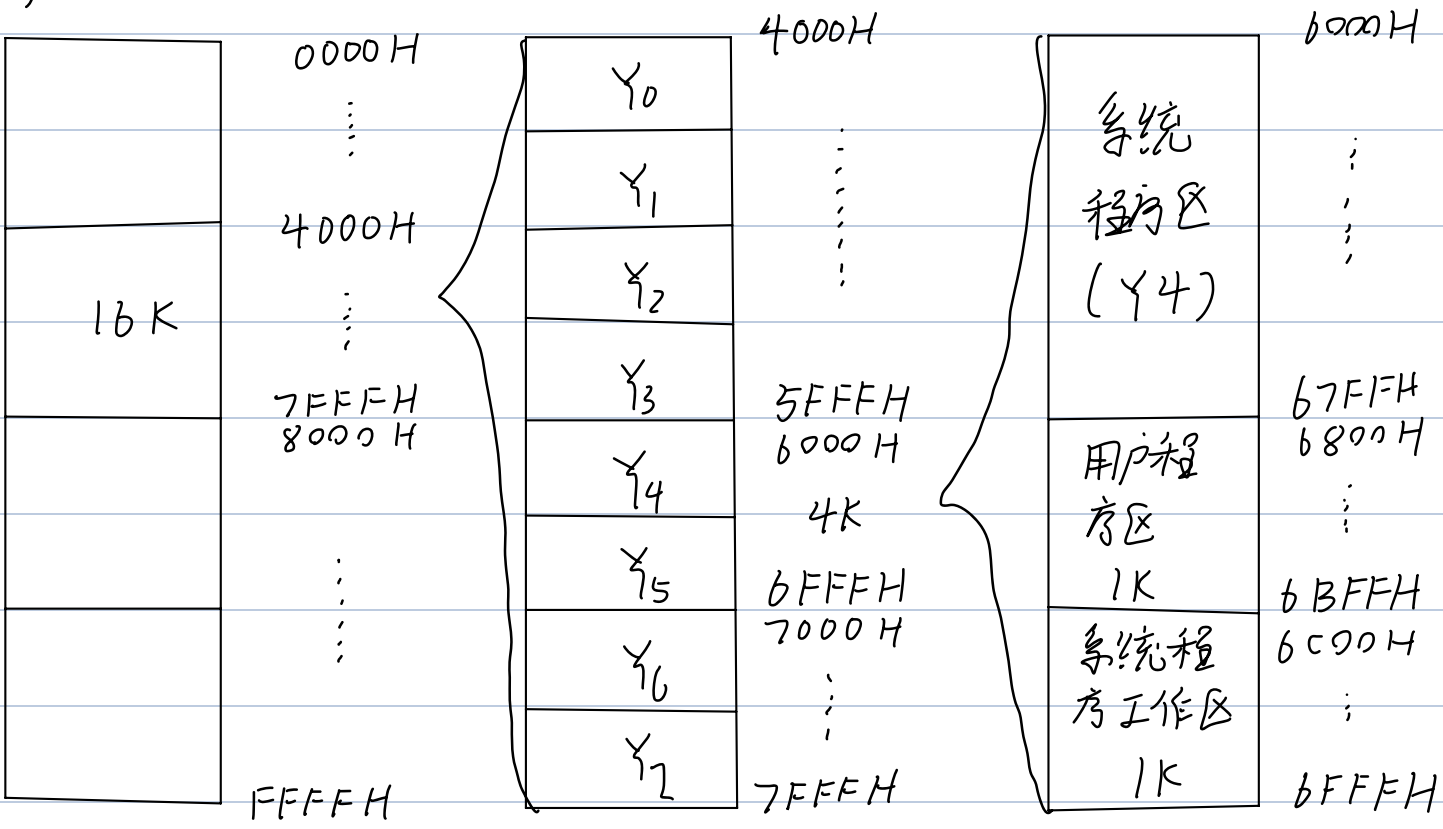
4片 8K×8位的 EPROM 组成
16K×16位的 ROM 区；
10片 8K×8 的 RAM 片组成
40K×16位的 RAM 区
芯片都需要 13位片内地址
故可用 A15-A13 三位高地址
经译码产生片选信号



(2)



15.(1)



(2)

系统程序区(ROM): 67FF − 6000H = 2K

2K×8位 EPROM 1片

用户程序区(RAM): 6BFFH − 6800H = 1K

系统程序工作区(RAM): 6FFFH − 6C00H = 1K

1K×4位 SRAM 4片

(3)

0110 0000 0000 0000

ROM ↕

0110 1000 0000 0000

RAM ↓

0110 1100 0000 0000

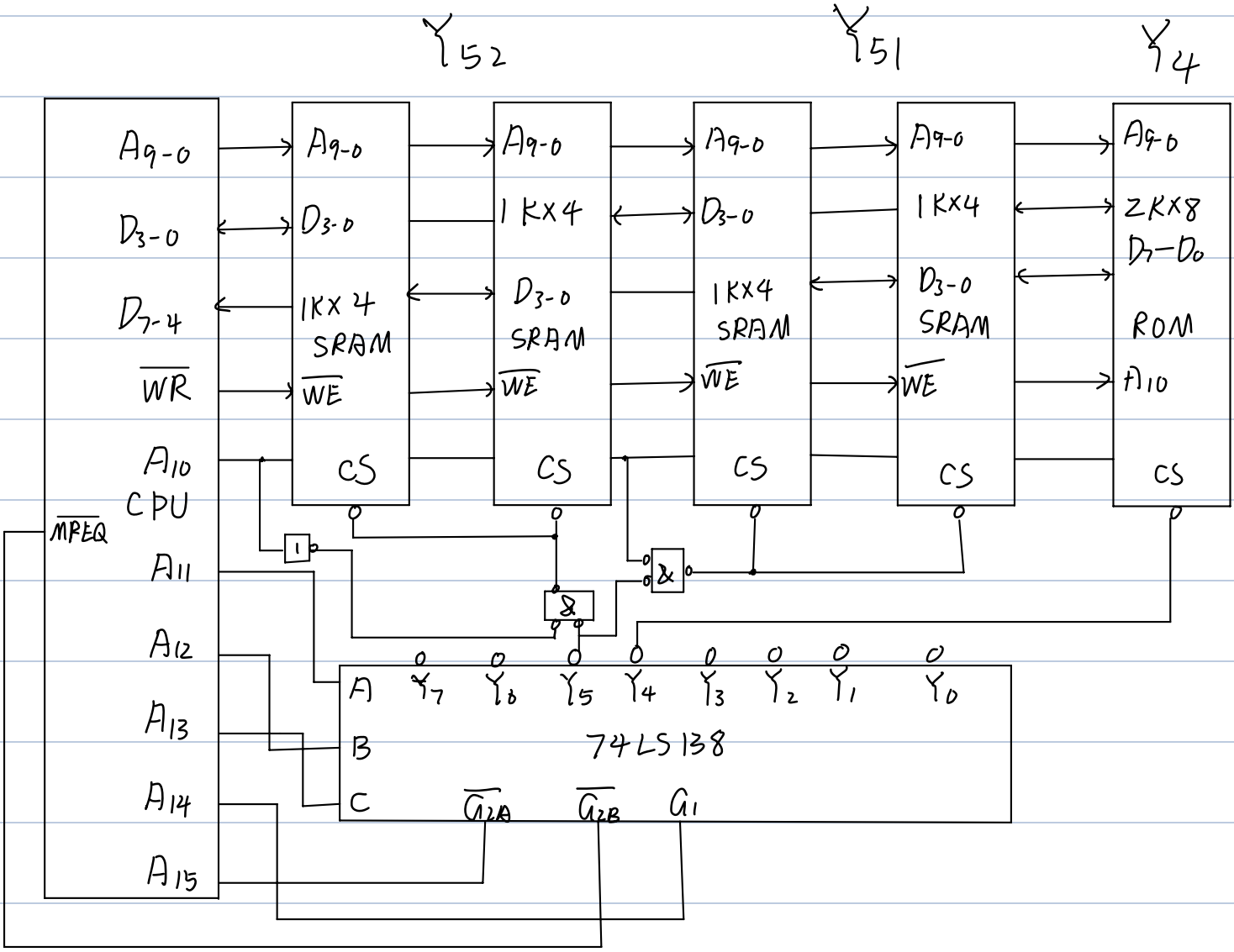
RAM ↓

0111 0000 0000 0000

$Y_4 = A_{13}\overline{A}_{12}\overline{A}_{11}$

$Y_{51} = A_{13}\overline{A}_{12}A_{11}\overline{A}_{10}$

$Y_{52} = A_{13}\overline{A}_{12}A_{11}A_{10}$



16. (1) 2^{32} = 4GB

寻址范围为 4GB

(2) n = 4GB / 512MB = 8 条

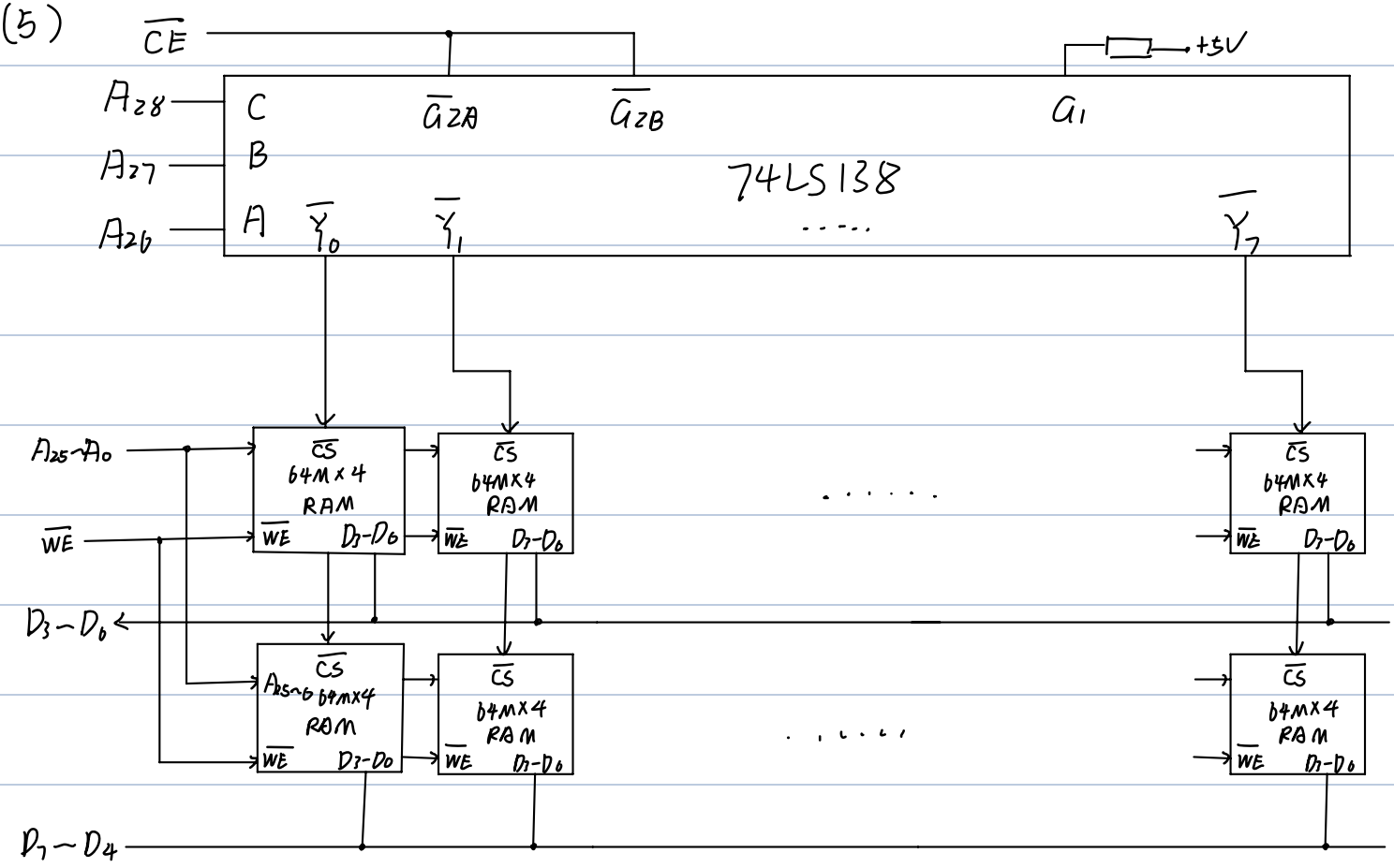
(3) 存储条：512M×8 ÷ 64M ÷ 4 = 16 块

主存：8×16 = 128 块

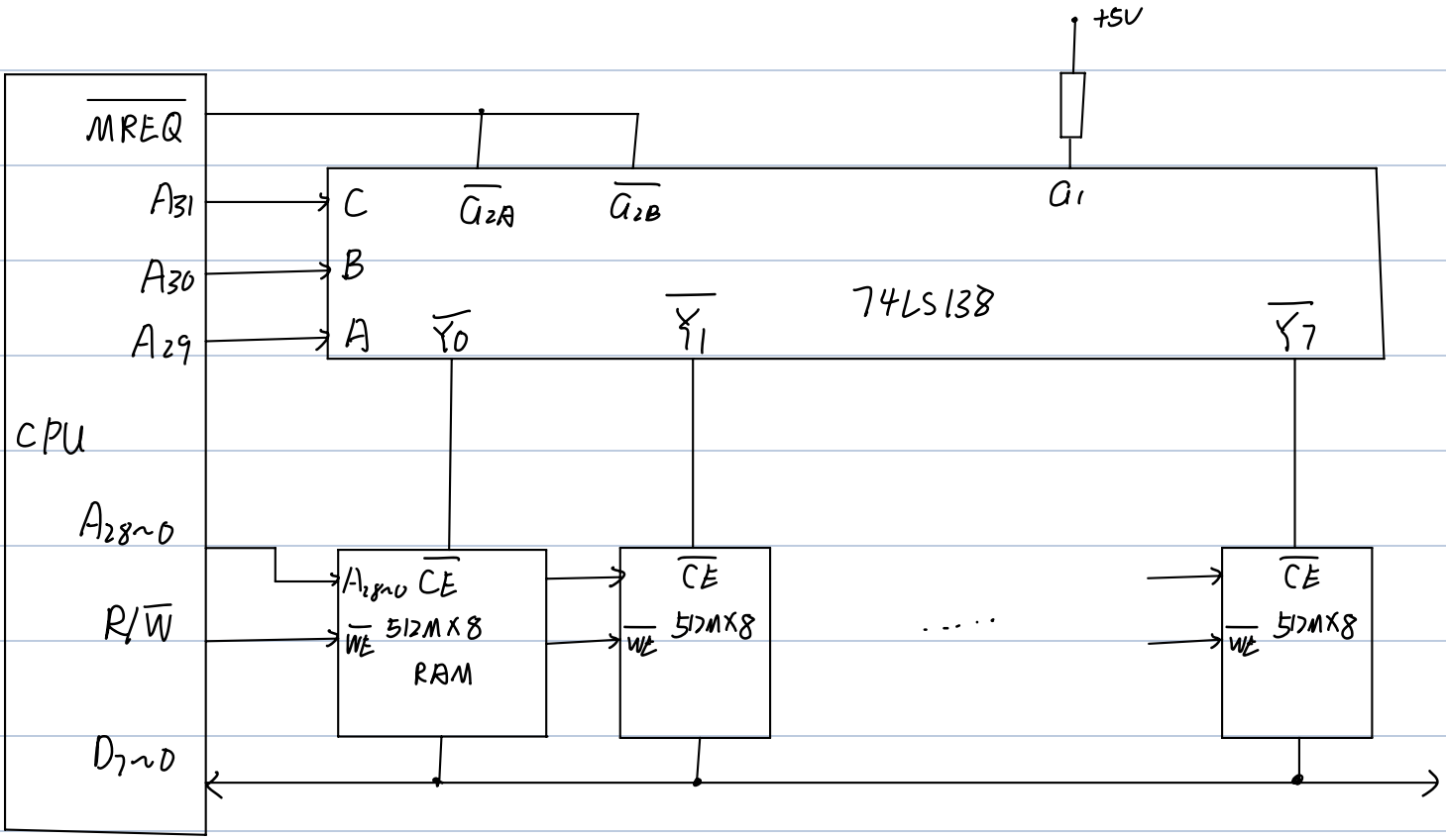
(4)

31 29	28 26	25 0
板地址	片地址	片内地址

(5)


CE
+5V
A28
A27
A26
C
B
A
G2A
G2B
G1
74LS138
Y0
Y1
Y7
A25~A0
WE
D3~D0
CS
64M×4 RAM
D3~D0
D3~D0
D7~D4

(6)


+5V
MREQ
A31
A30
A29
C
B
A
G2A
G2B
G1
74LS138
Y0
Y1
Y7
CPU
A28~0
R/W
D7~0
A28~0
CE
WE
512M×8 RAM