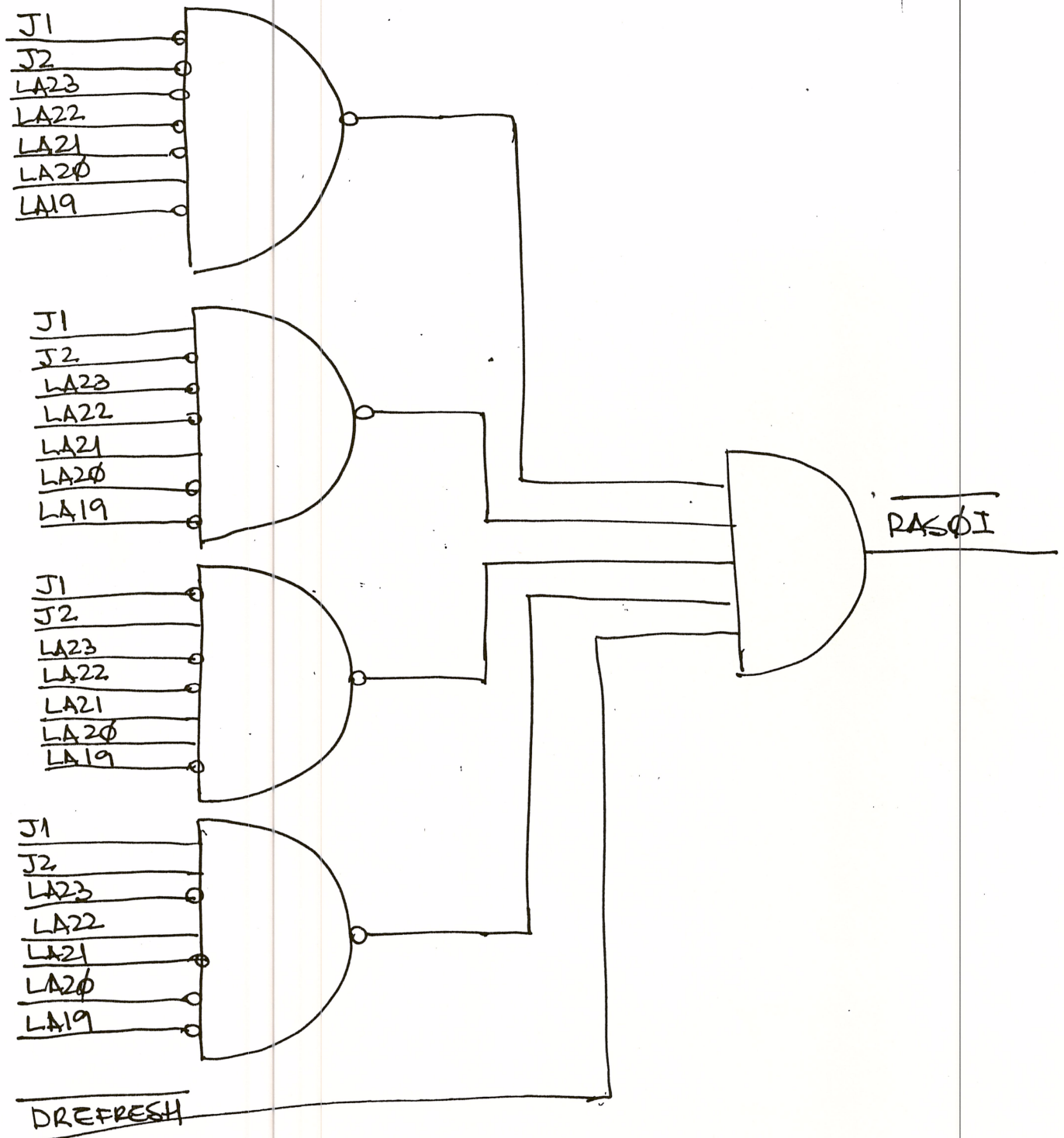


# PAL 16L8 (CI-77) EXPANSÃO

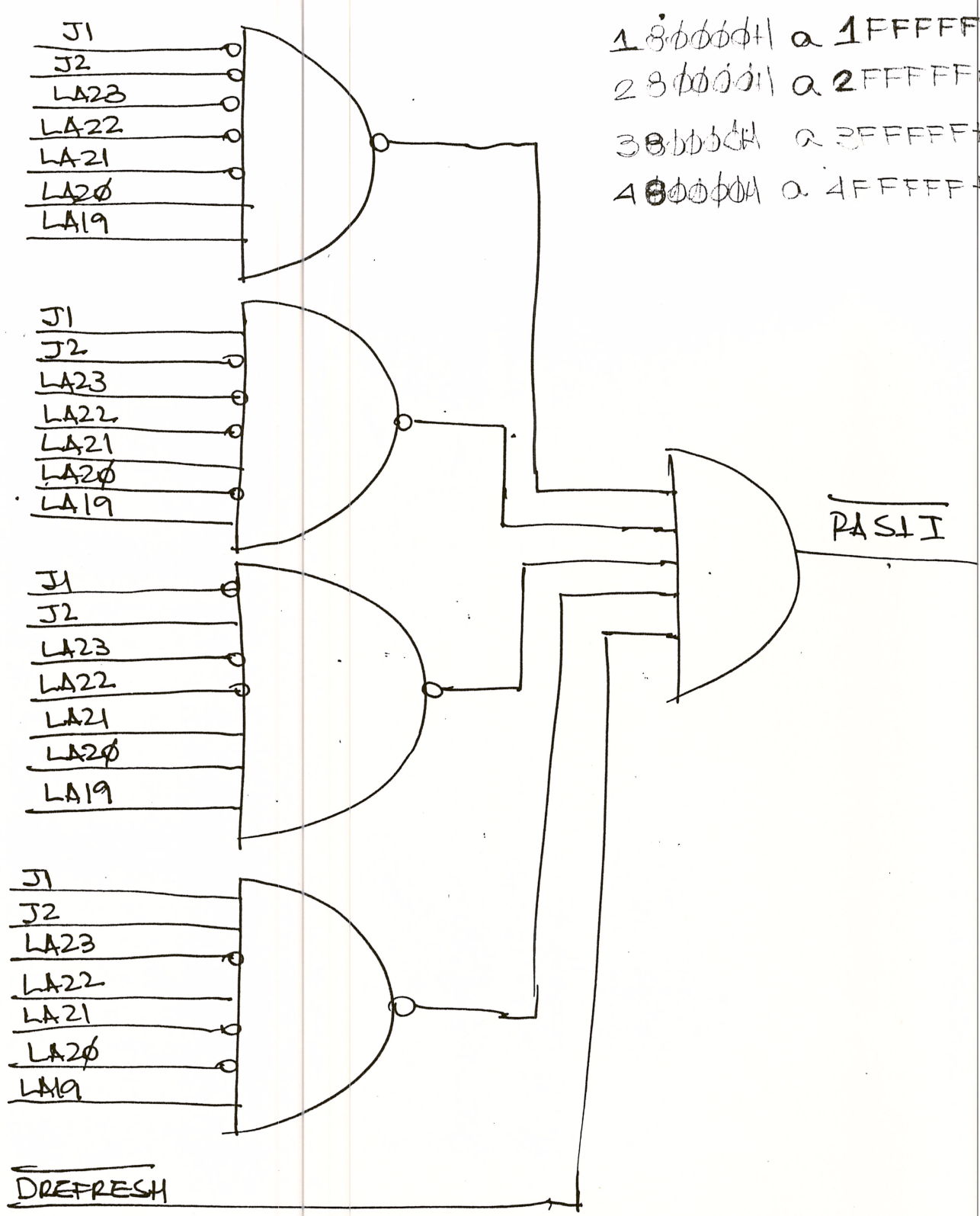
Memória

1 0 0 0 0 0 1 0 1 7 F F F F F F

$$\begin{aligned} \overline{RAS\phi I} &= \overline{DREFRESH} + J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\ &+ J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\ &+ J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\ &+ J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 \end{aligned}$$

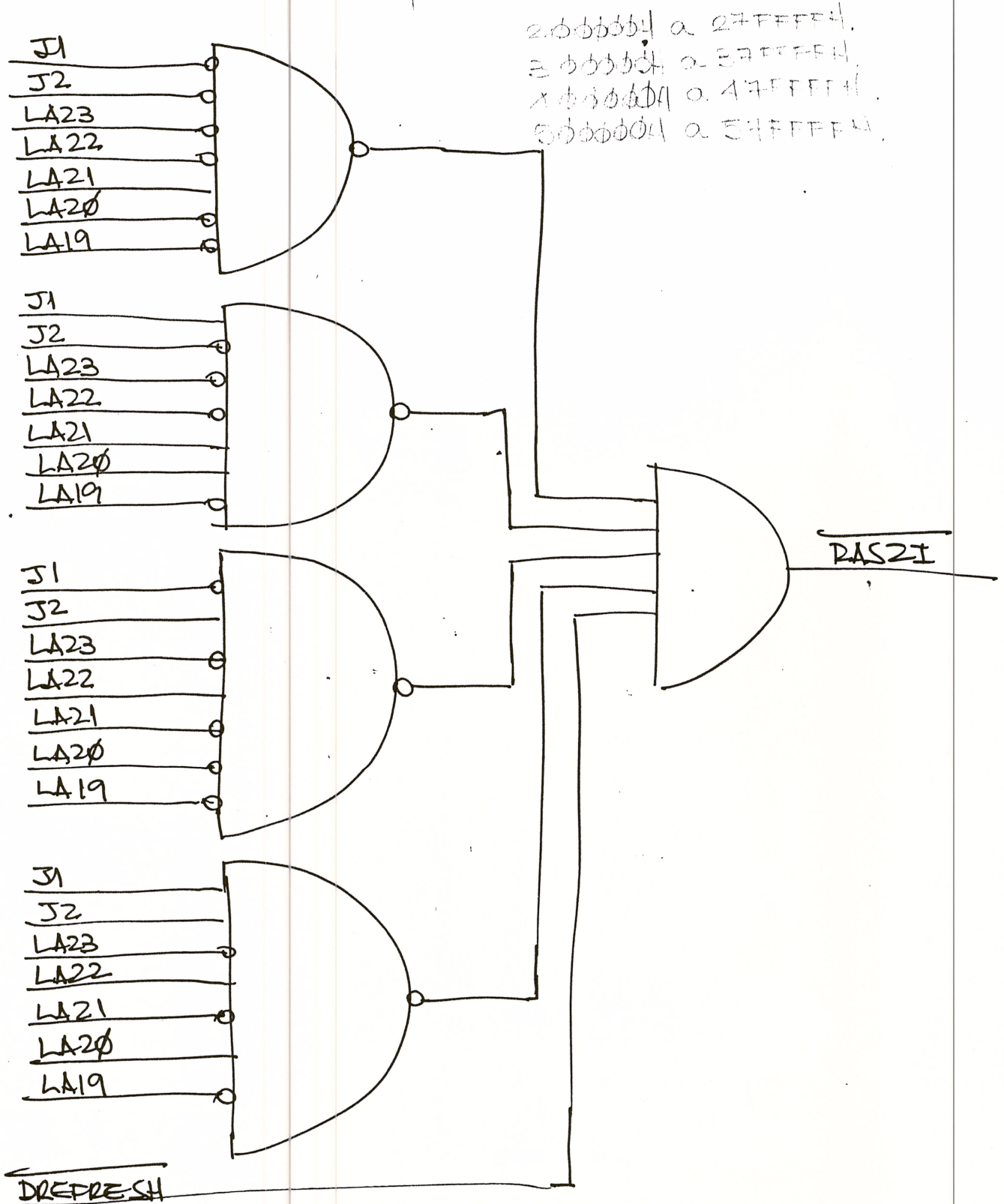


$$\begin{aligned}
 \overline{\text{RAS1I}} &= \overline{\text{DREFRESH}} + \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 &+ \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 &+ \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 &+ \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19}
 \end{aligned}$$



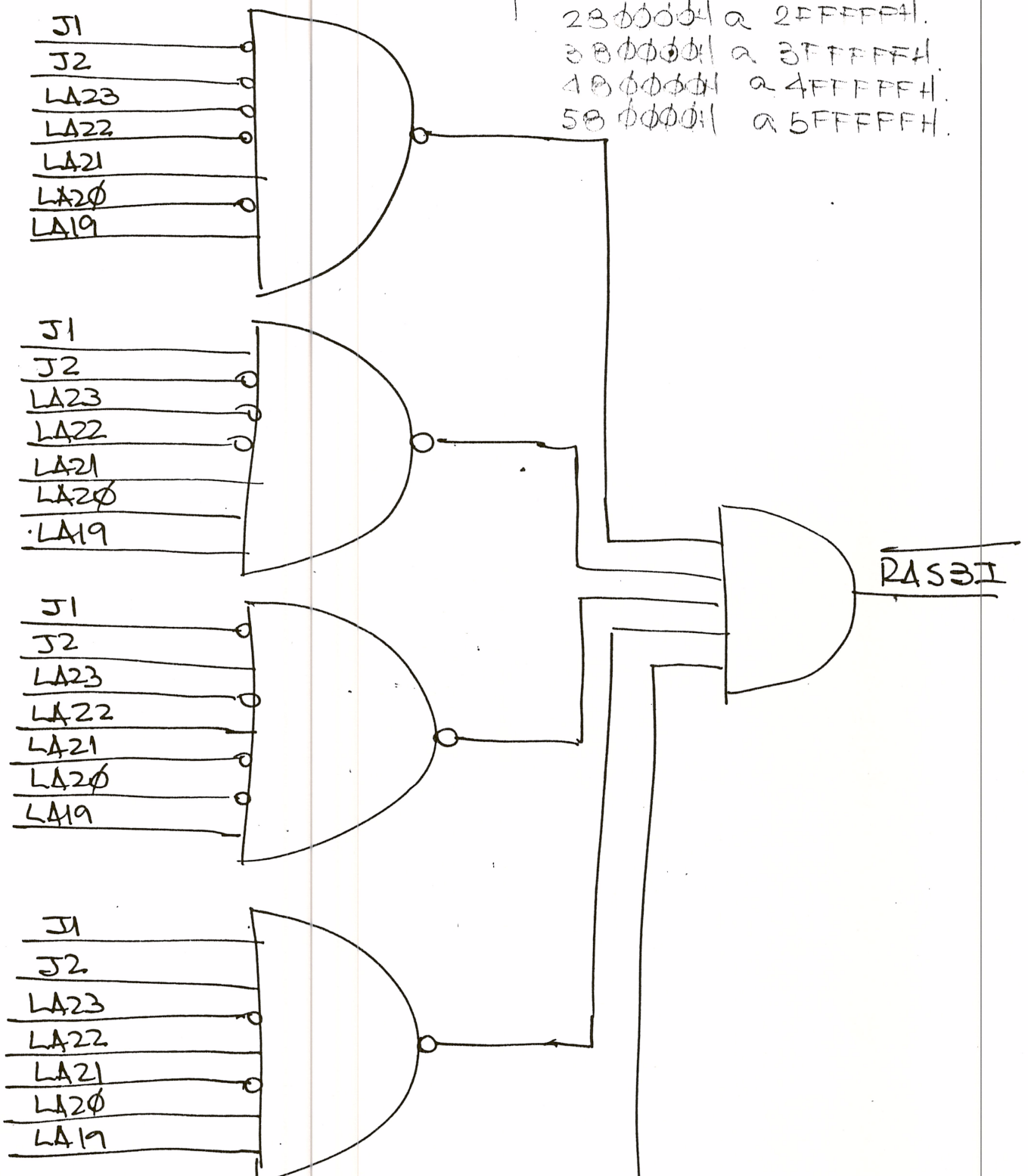
- 1 800000H ~ 1FFFFFFH
- 2 800001H ~ 2FFFFFFH
- 3 800002H ~ 3FFFFFFH
- 4 800003H ~ 4FFFFFFH

$$\begin{aligned}
 \overline{RAS2I} = & \overline{DREFRESH} + \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 & \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 & \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19} + \\
 & \overline{J1} * \overline{J2} * \overline{LA23} * \overline{LA22} * \overline{LA21} * \overline{LA20} * \overline{LA19}
 \end{aligned}$$



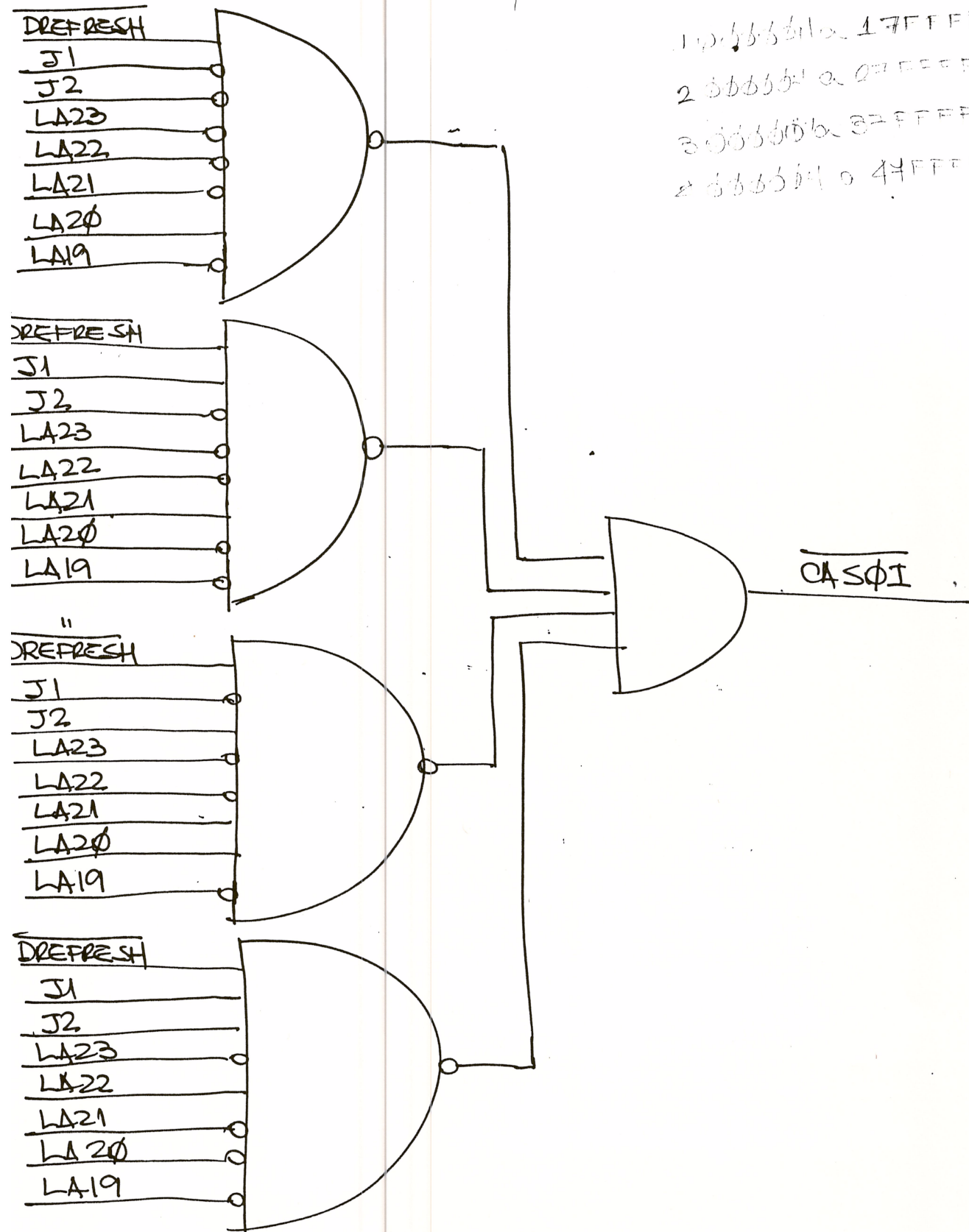
$$\begin{aligned}
 \overline{RAS3I} = & \overline{DREFRESH} + J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & + J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & + J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & + J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19
 \end{aligned}$$

28000001 ~ 2FFFFFFF  
 38000001 ~ 3FFFFFFF  
 48000001 ~ 4FFFFFFF  
 58000001 ~ 5FFFFFFF



$$\begin{aligned}
 \overline{\text{CAS}}\phi I &= \overline{\text{DREFRESH}} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 &+ \overline{\text{DREFRESH}} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 &+ \overline{\text{DREFRESH}} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 &+ \overline{\text{DREFRESH}} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19.
 \end{aligned}$$

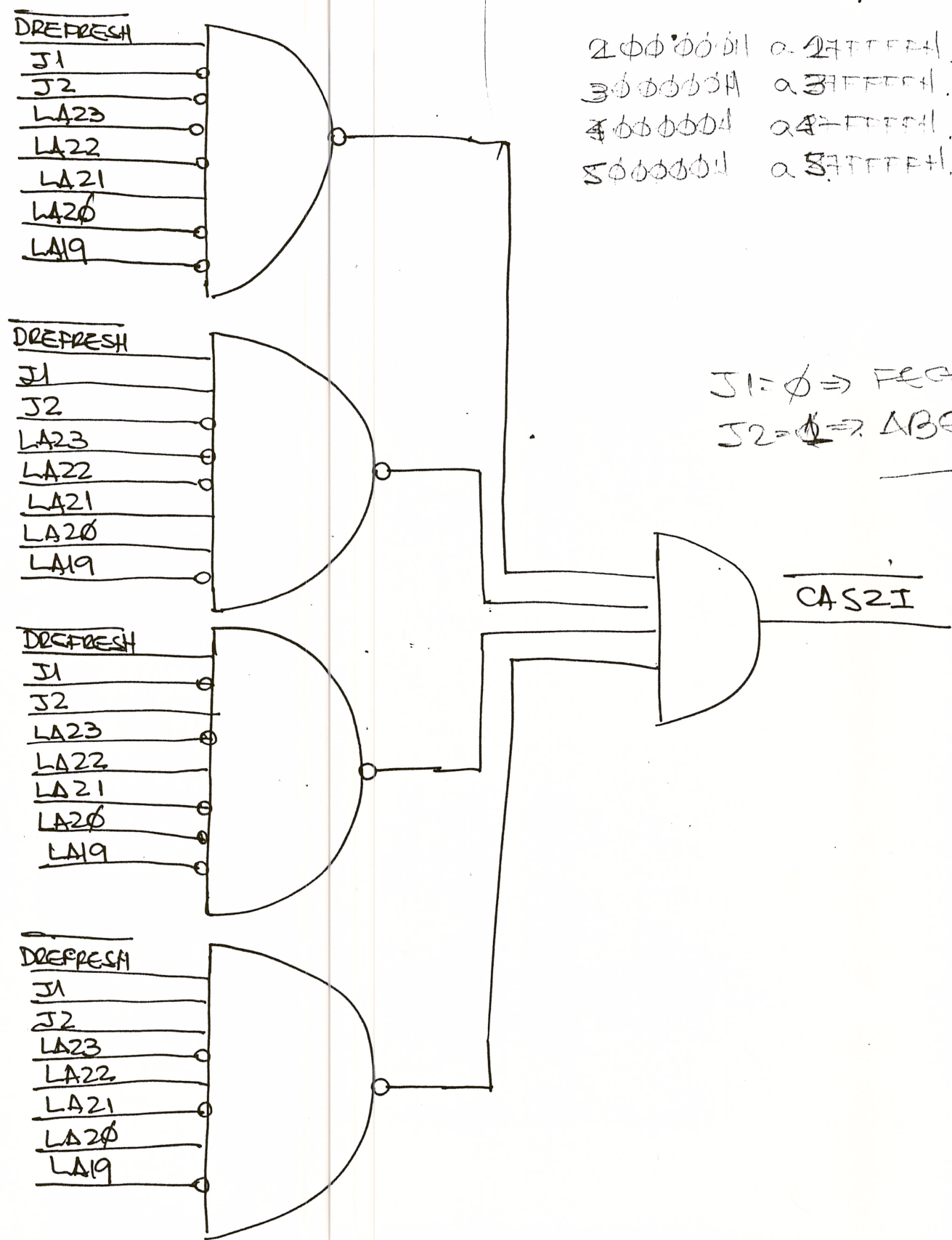
1) 00000000 17FFFFFFH.  
 2) 00000000 07FFFFFFH.  
 3) 00000000 37FFFFFFH.  
 4) 00000000 47FFFFFFH.



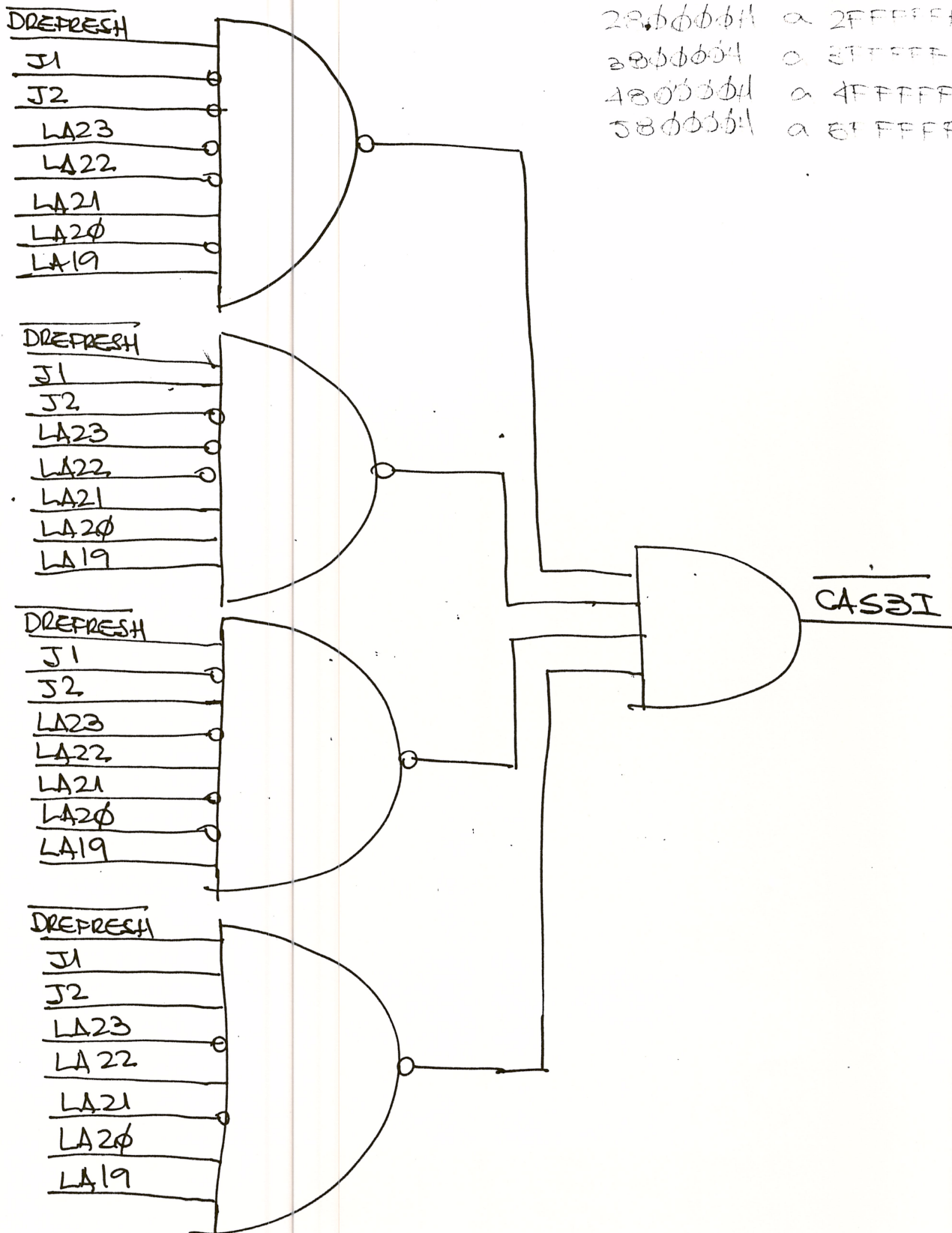
$$\begin{aligned}
 \overline{CAS2I} = & \overline{DREFRESH} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & \overline{DREFRESH} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & \overline{DREFRESH} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19 + \\
 & \overline{DREFRESH} * J1 * J2 * LA23 * LA22 * LA21 * LA20 * LA19
 \end{aligned}$$

200000011 0 27777777  
 300000001 0 37777777  
 400000001 0 47777777  
 500000001 0 57777777

J1 = 0 ⇒ FECHADO  
 J2 = 0 ⇒ ABERTO



$$\begin{aligned}
 \overline{\text{CAS3I}} &= \overline{\text{DREFRESH}} * \overline{\text{J1}} * \overline{\text{J2}} * \overline{\text{LA23}} * \overline{\text{LA22}} * \overline{\text{LA21}} * \overline{\text{LA20}} * \overline{\text{LA19}} + \\
 &+ \overline{\text{DREFRESH}} * \overline{\text{J1}} * \overline{\text{J2}} * \overline{\text{LA23}} * \overline{\text{LA22}} * \overline{\text{LA21}} * \overline{\text{LA20}} * \overline{\text{LA19}} + \\
 &+ \overline{\text{DREFRESH}} * \overline{\text{J1}} * \overline{\text{J2}} * \overline{\text{LA23}} * \overline{\text{LA22}} * \overline{\text{LA21}} * \overline{\text{LA20}} * \overline{\text{LA19}} + \\
 &+ \overline{\text{DREFRESH}} * \overline{\text{J1}} * \overline{\text{J2}} * \overline{\text{LA23}} * \overline{\text{LA22}} * \overline{\text{LA21}} * \overline{\text{LA20}} * \overline{\text{LA19}}
 \end{aligned}$$



28000000h = 2FFFFFFFh  
 38000000h = 3FFFFFFFh  
 48000000h = 4FFFFFFFh  
 58000000h = 5FFFFFFFh

$$\frac{\phi}{CS1} = \frac{1}{J1} * \frac{\phi}{J1}$$

