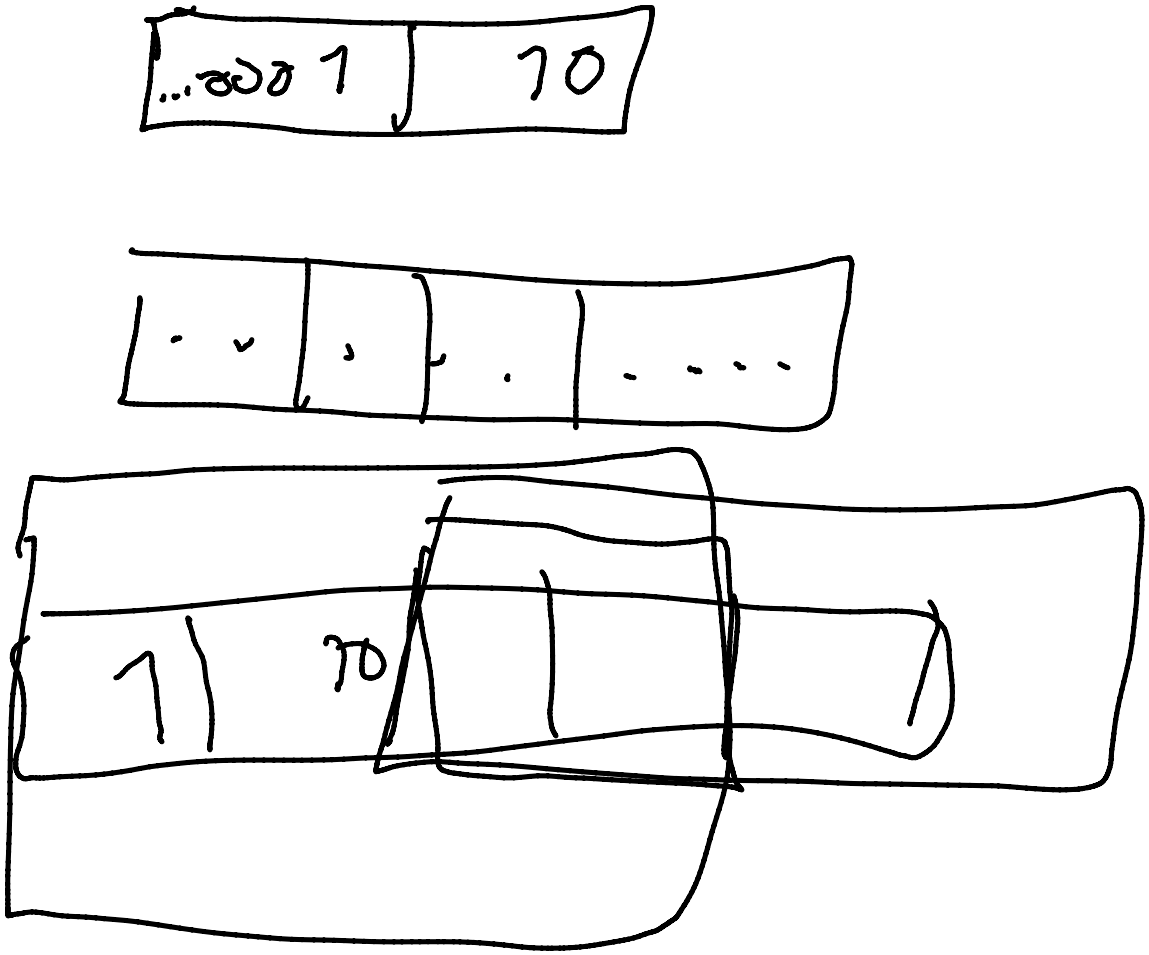


0x2 = 00106

AND

4+1=5

8+2=10

16 8 4 2 1

0 1 0 1 1

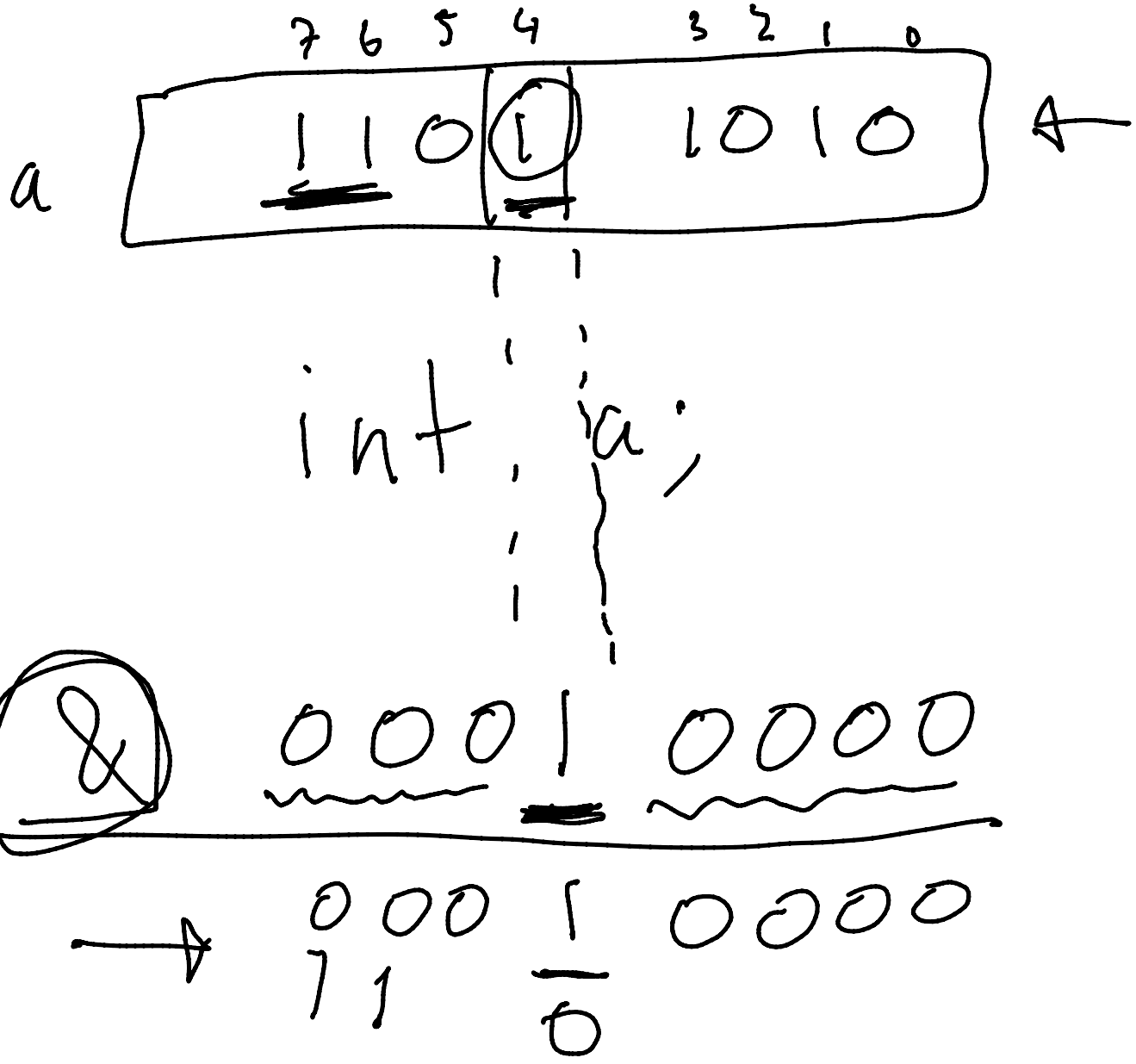
& 1 0 1 0

= 0 0 0 0

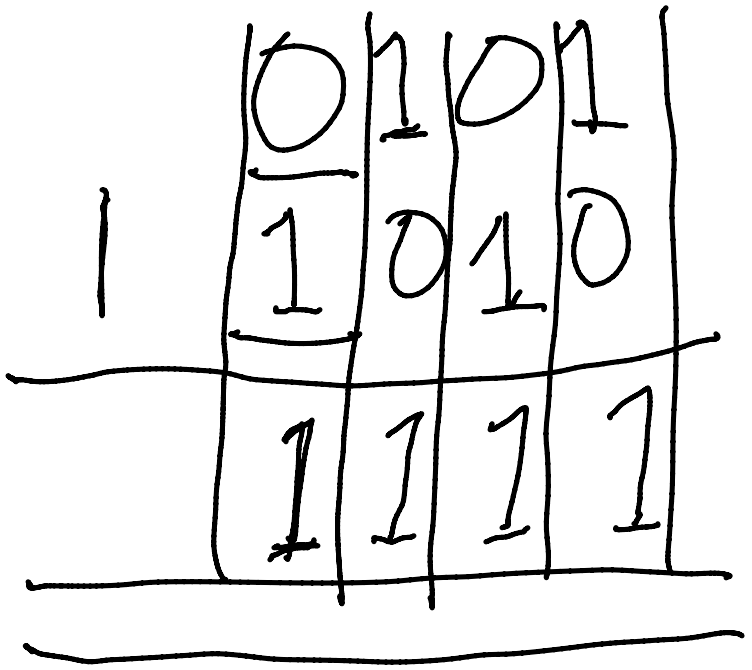
0 0 0 1

& 0 0 1 1

0 0 0 1


7 6 5 4 3 2 1 0
a
1 1 0 1 1 0 1 0
int a;
&
0 0 0 1 0 0 0 0
0 0 0 1 0 0 0 0
1 1 0

OR



5
10

15

0 0 0 1
1 0 0 1 1

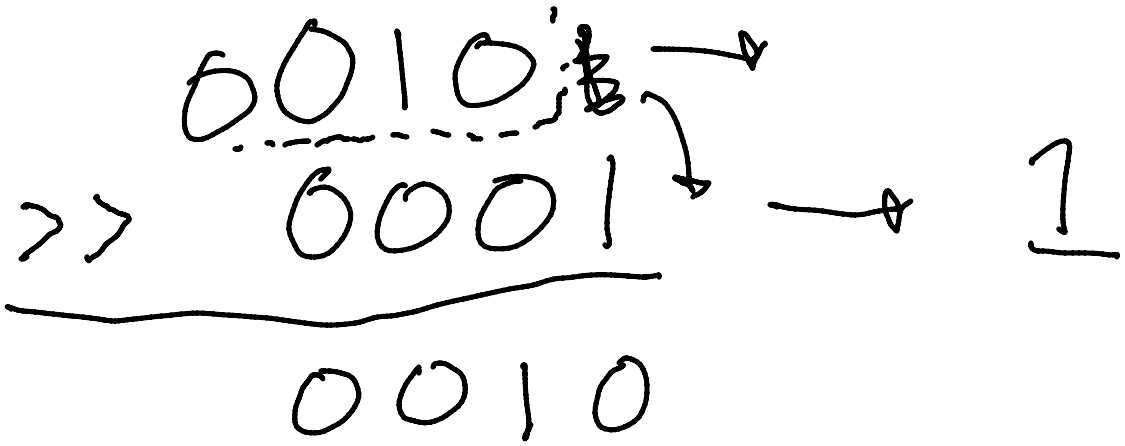
1
3 + = 4

0 0 1 1 → 3

$$
\begin{array}{r}
0000\,1\;\;0000 \\
1\;\;1100\;\;1010 \\
\hline
1101\;\;1010
\end{array}
$$

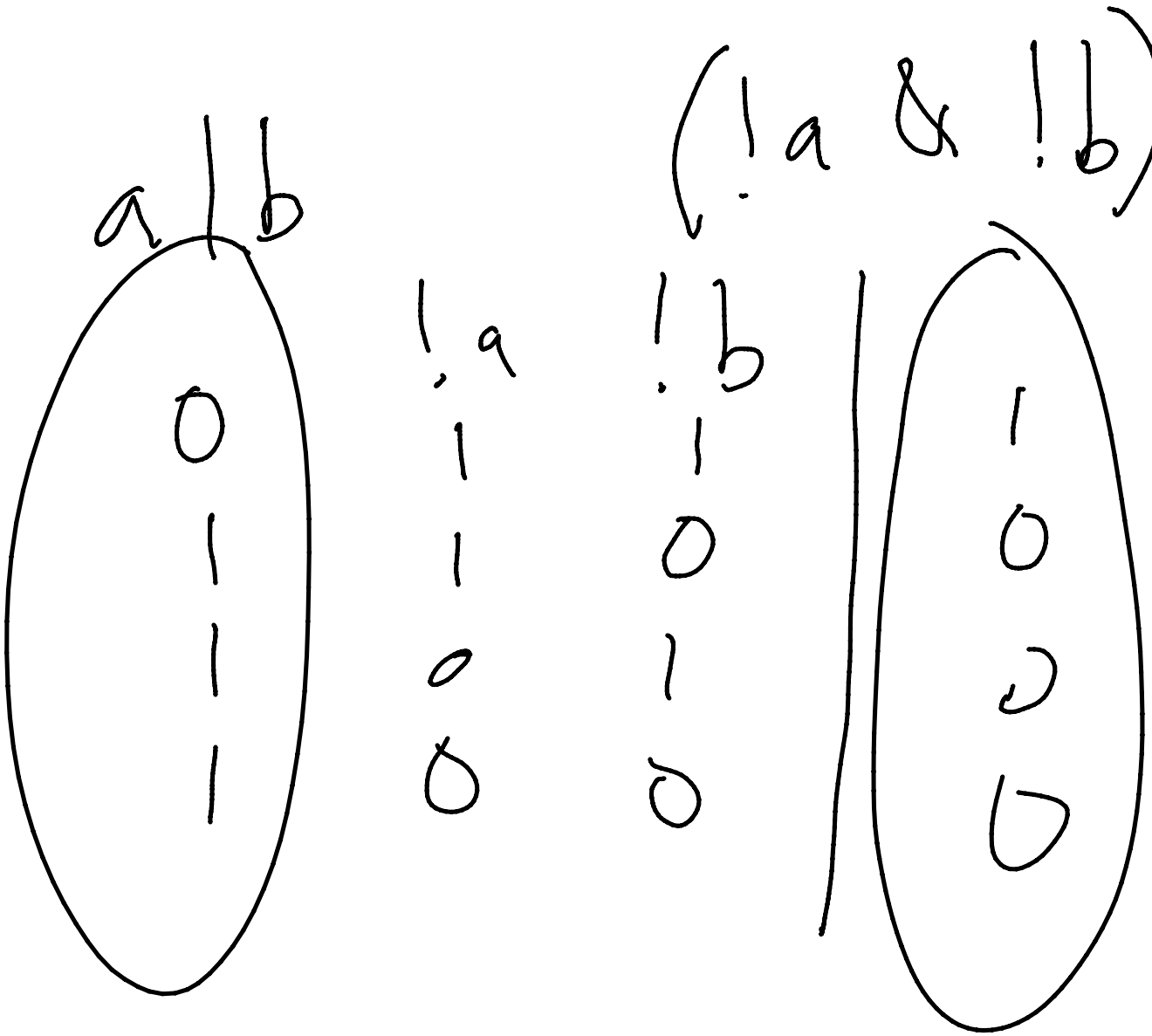
a	b	a | b	¬(a | b)	¬(a & b)
0	0	0	1	1
0	1	1	0	1
1	0	1	0	1
1	1	1	0	0

SHIFT



0010 >> 2 = 0000

0010 << 2 = 1000


a | b
0
1
1
1
!a
1
1
0
0
!b
1
0
1
0
(!a & !b)
1
0
0
0