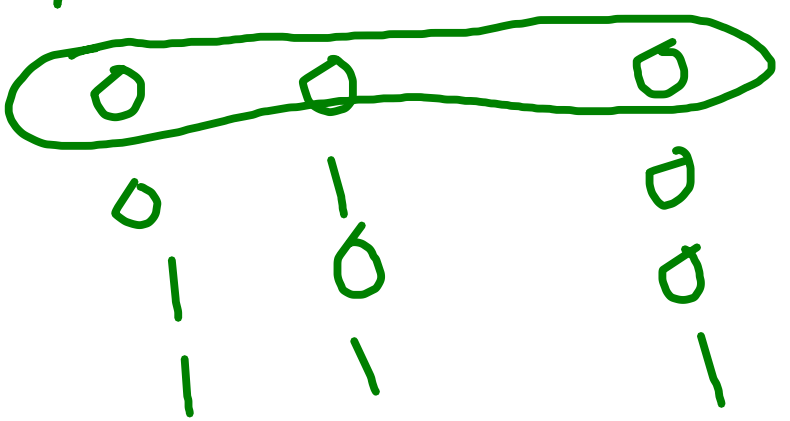
BITWISE OPERATORS

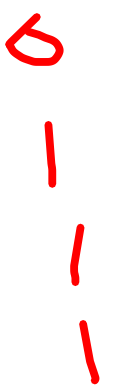
AND

A B A&B



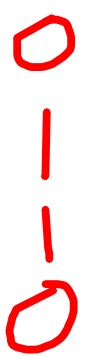
OR

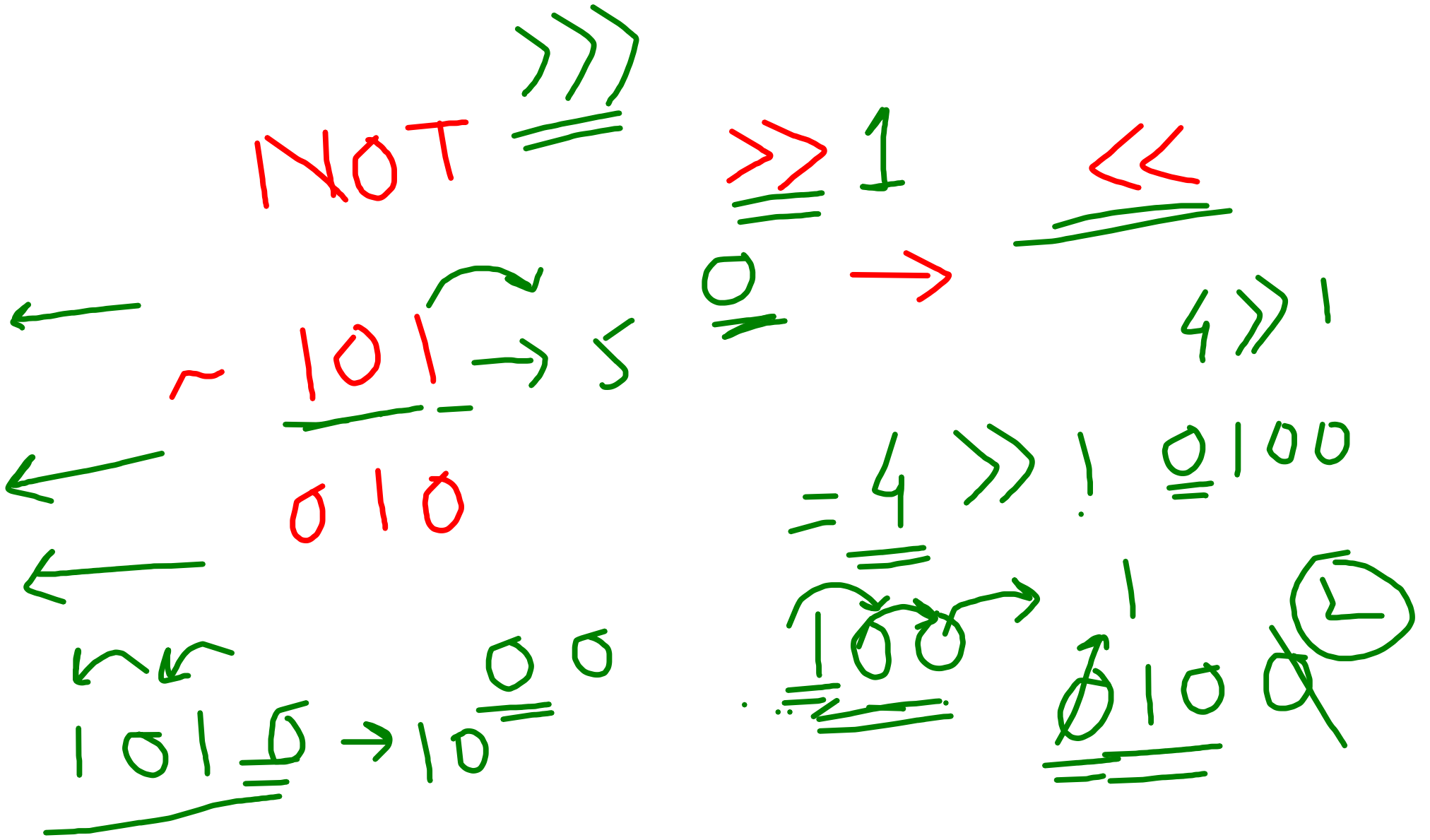
A|B

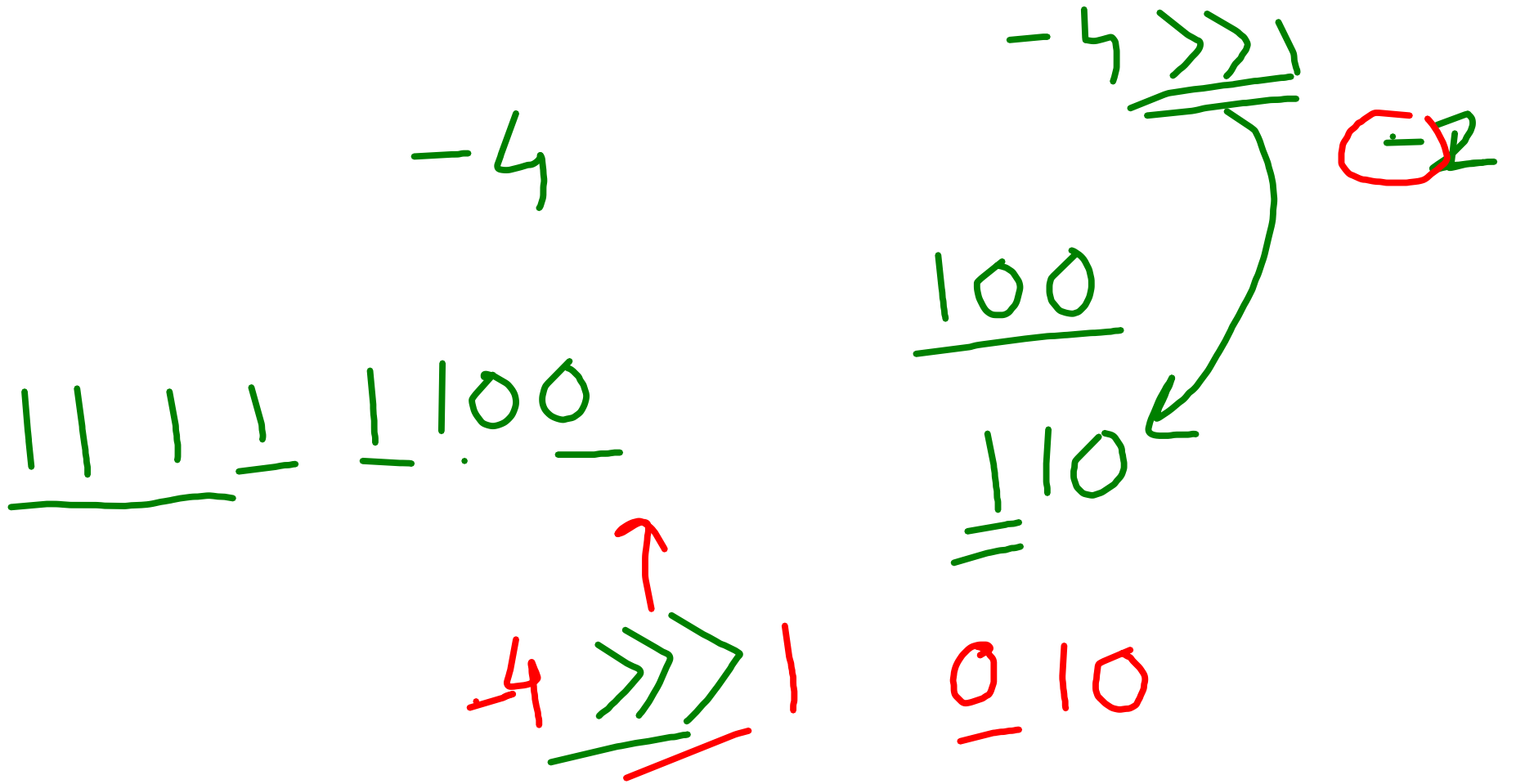


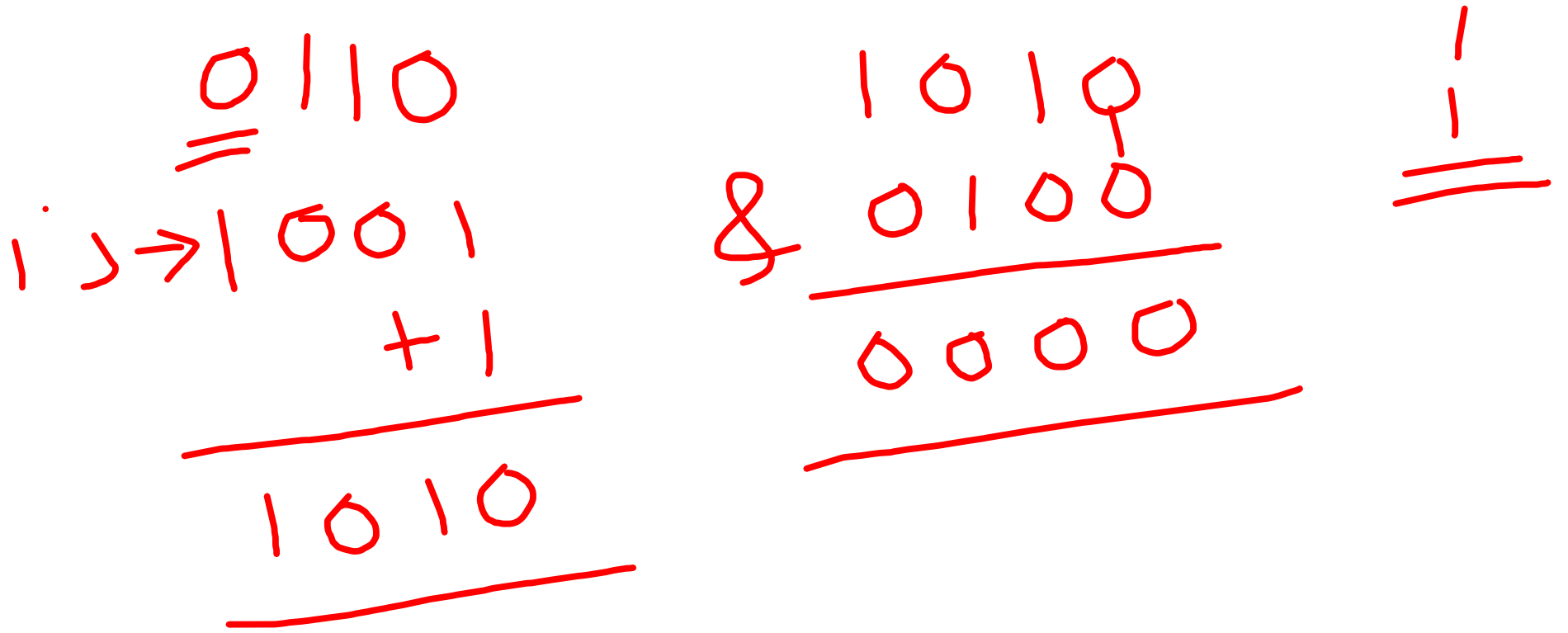
XOR

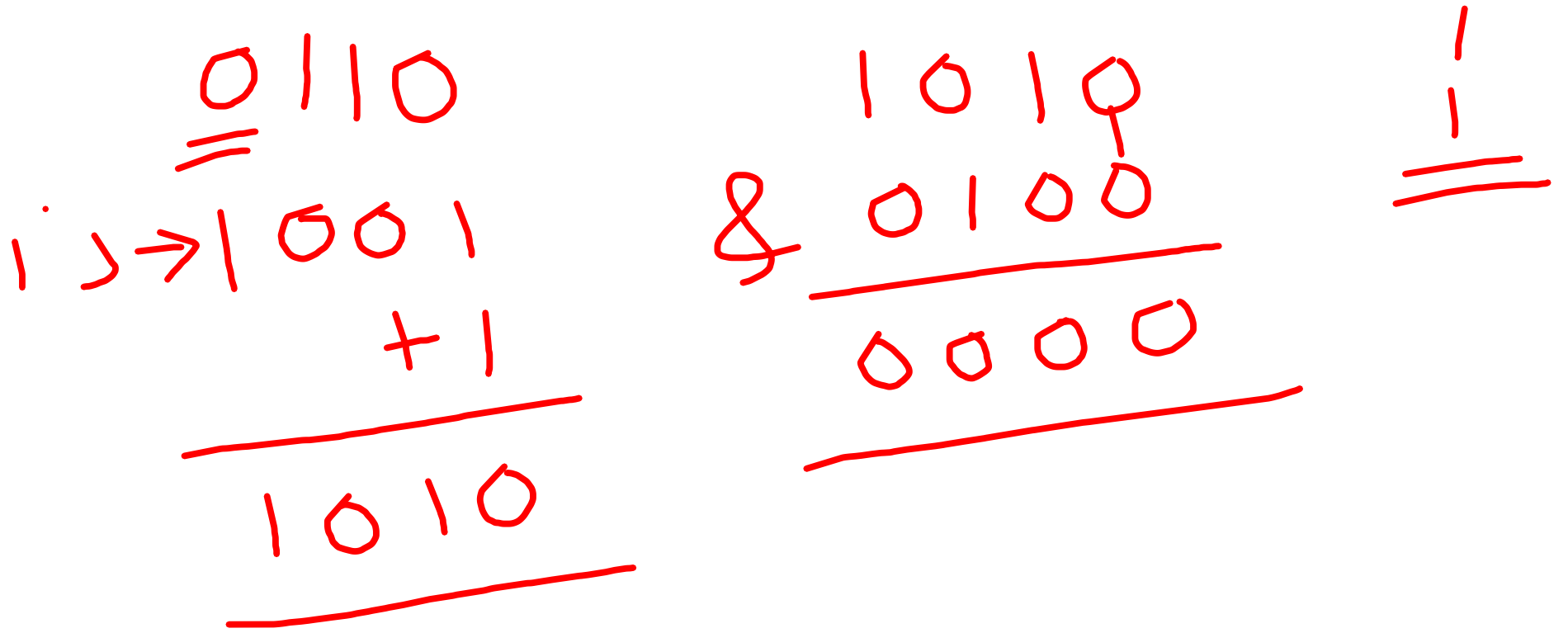
A^B

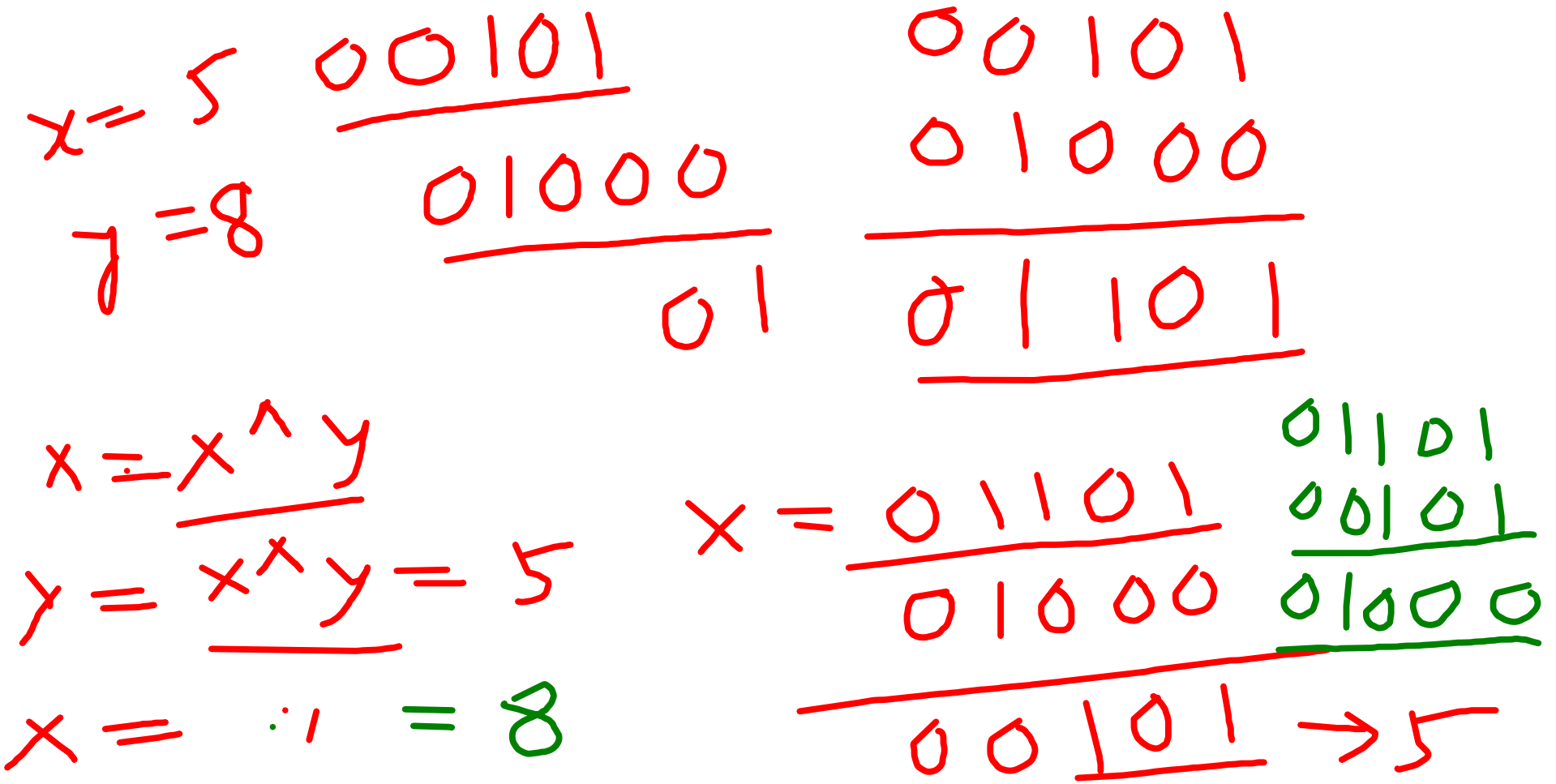


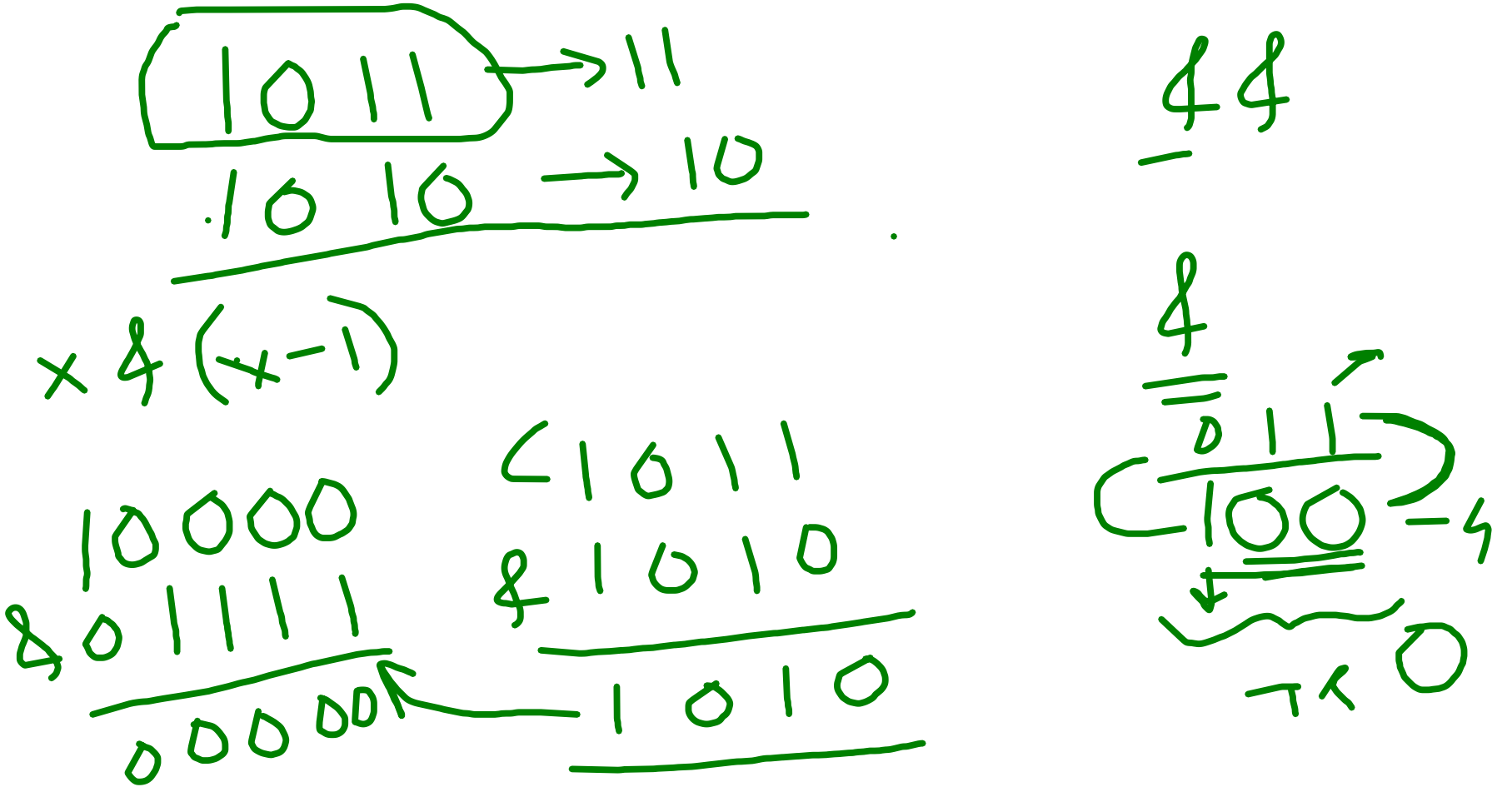

NOT
>>>
>>1
<<
~ 101 → 5
010
0 →
4>>1
=4>>1 0100
100
1010
101 0 → 10 00

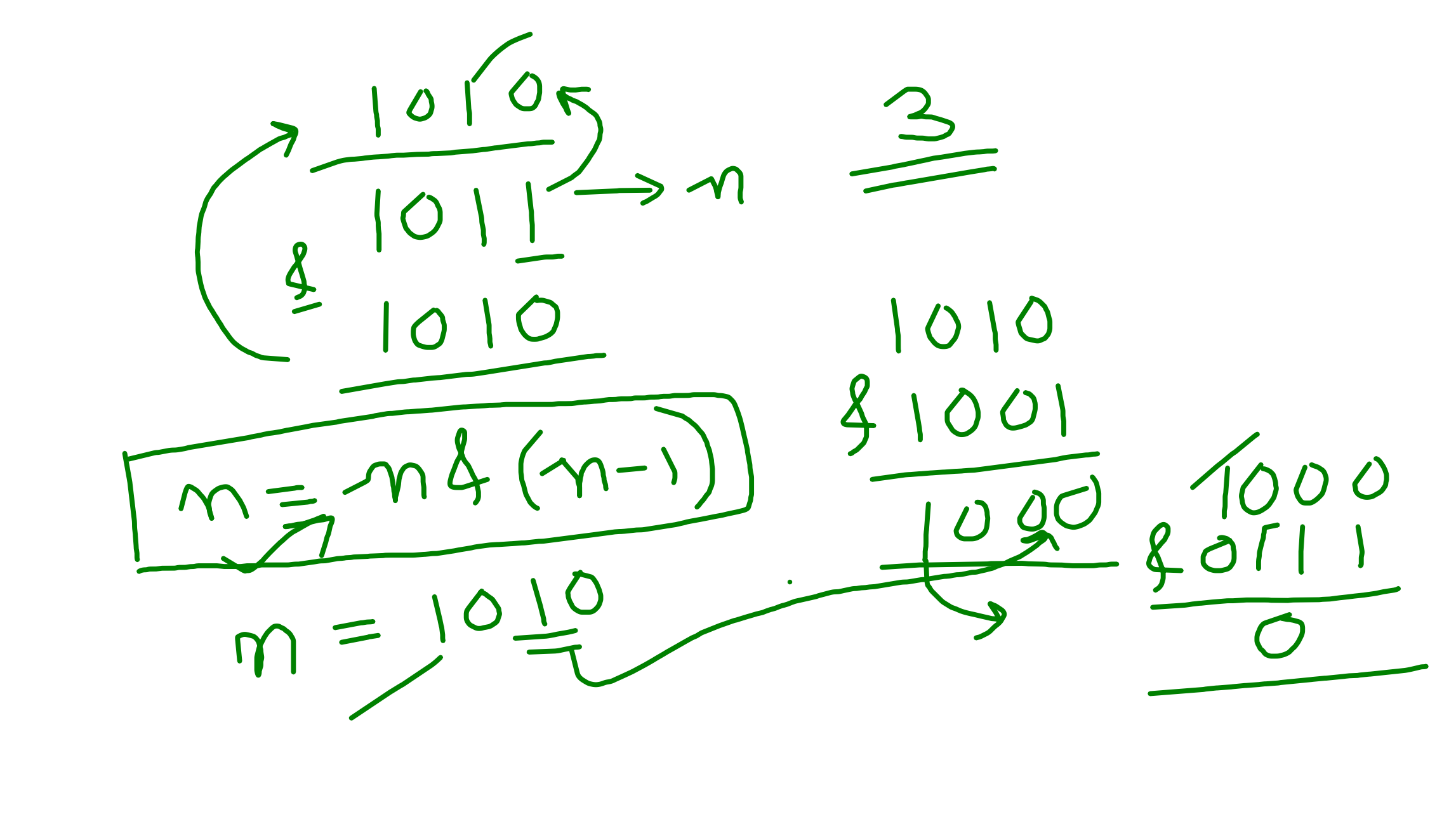

-4
11111100
-4 >>> 1
100
110
-2
4 >>> 1
0 10


0110
1's → 1001
+1
1010
1010
& 0100
0000
!
!


0110
1's → 1001
+1
1010
1010
& 0100
0000
!
!

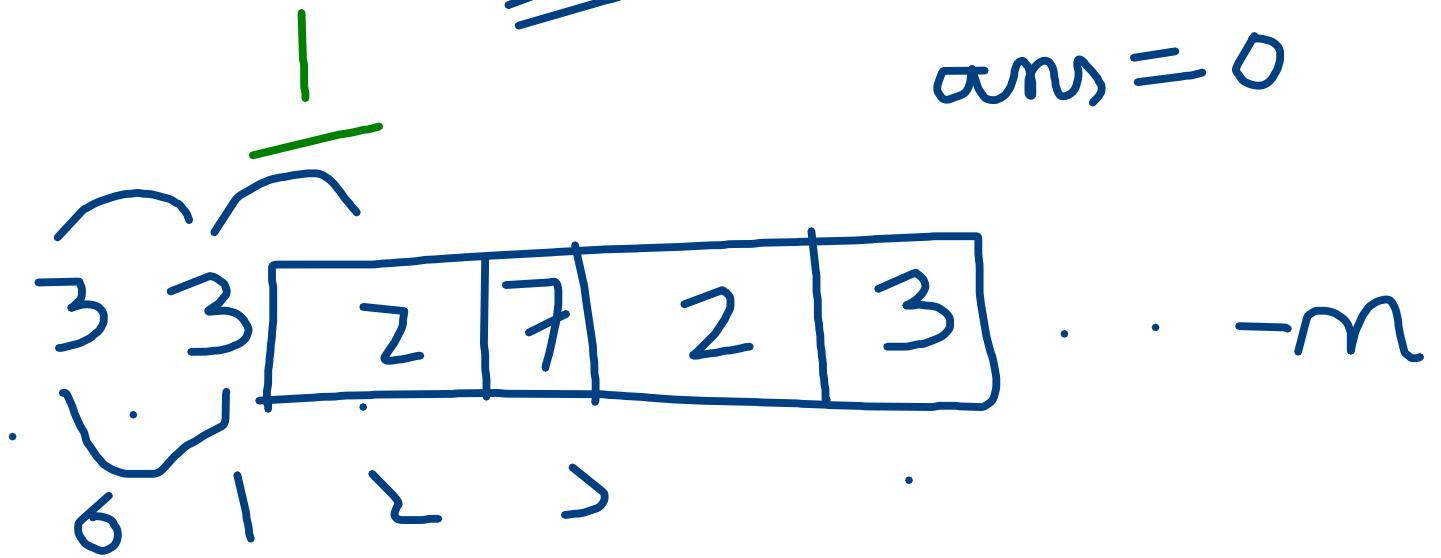

x = 5 00101
y = 8 01000
01
00101
01000
01101
x = x ^ y
y = x ^ y = 5
x = ∴ = 8
x = 01101 01101
01000 01000
00101 → 5

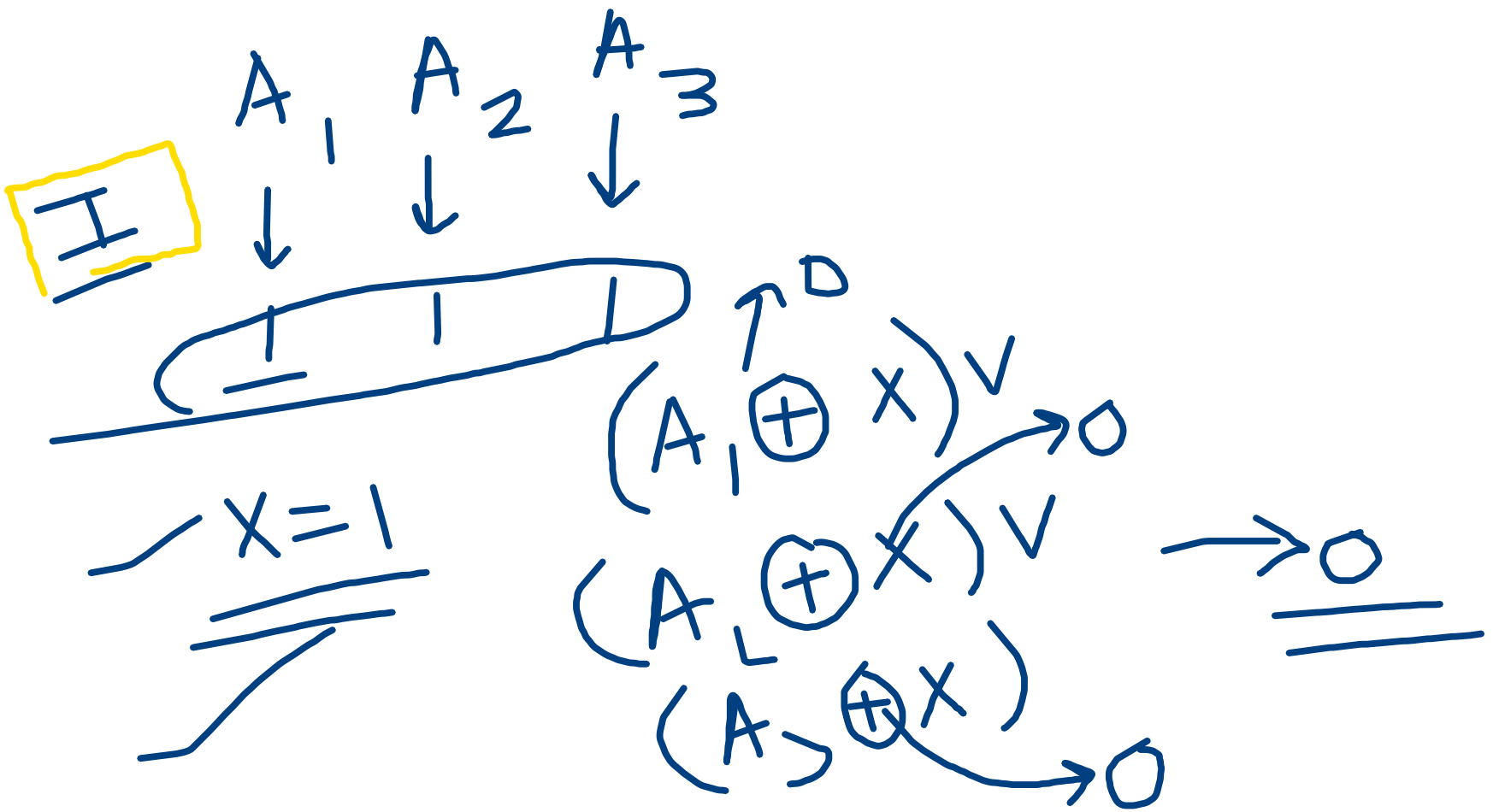

1011
11
1010
10
x & (x-1)
10000
& 01111
00000
<1011
& 1010
1010
& &
011
100
4
0


1010
1011
n
&
1010
3
n = n & (n-1)
n = 1010
1010
&1001
1000
1000
&0111
0

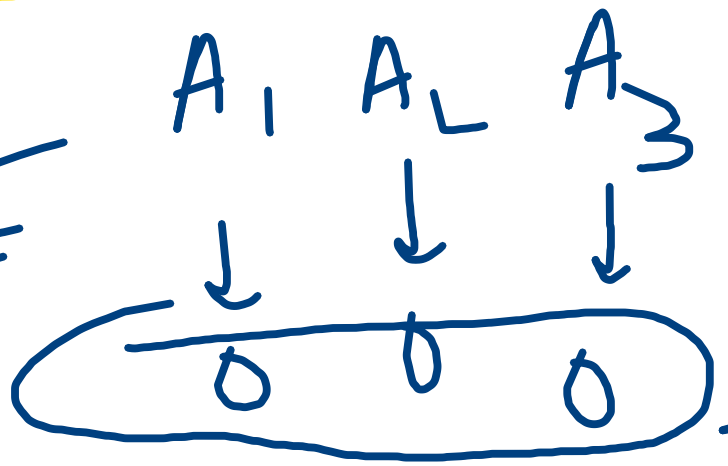
$0 \wedge X = X$

ans = 0




A1
A2
A3
I
X=1
D
(A1 ⊕ X)V
(AL ⊕ X)V
(A> ⊕ X)
0
0
0

II

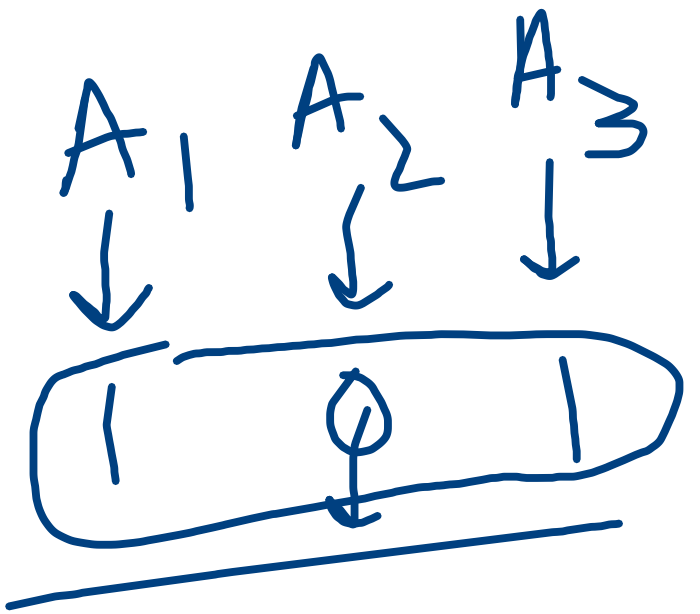


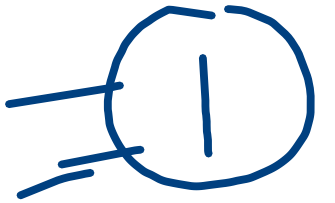
$(\circ \times \circ) \vee (\circ \times \circ) \vee (- \cdot)$

$X = 0$

$= 0$

III



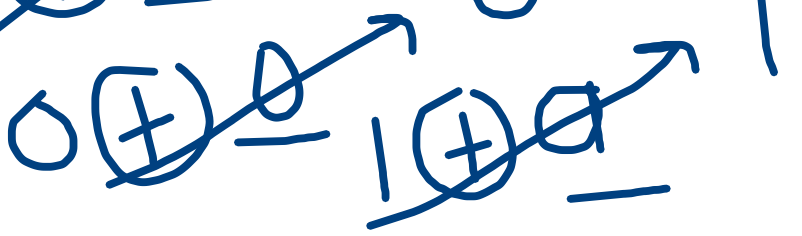


1 OR 0 OR 1

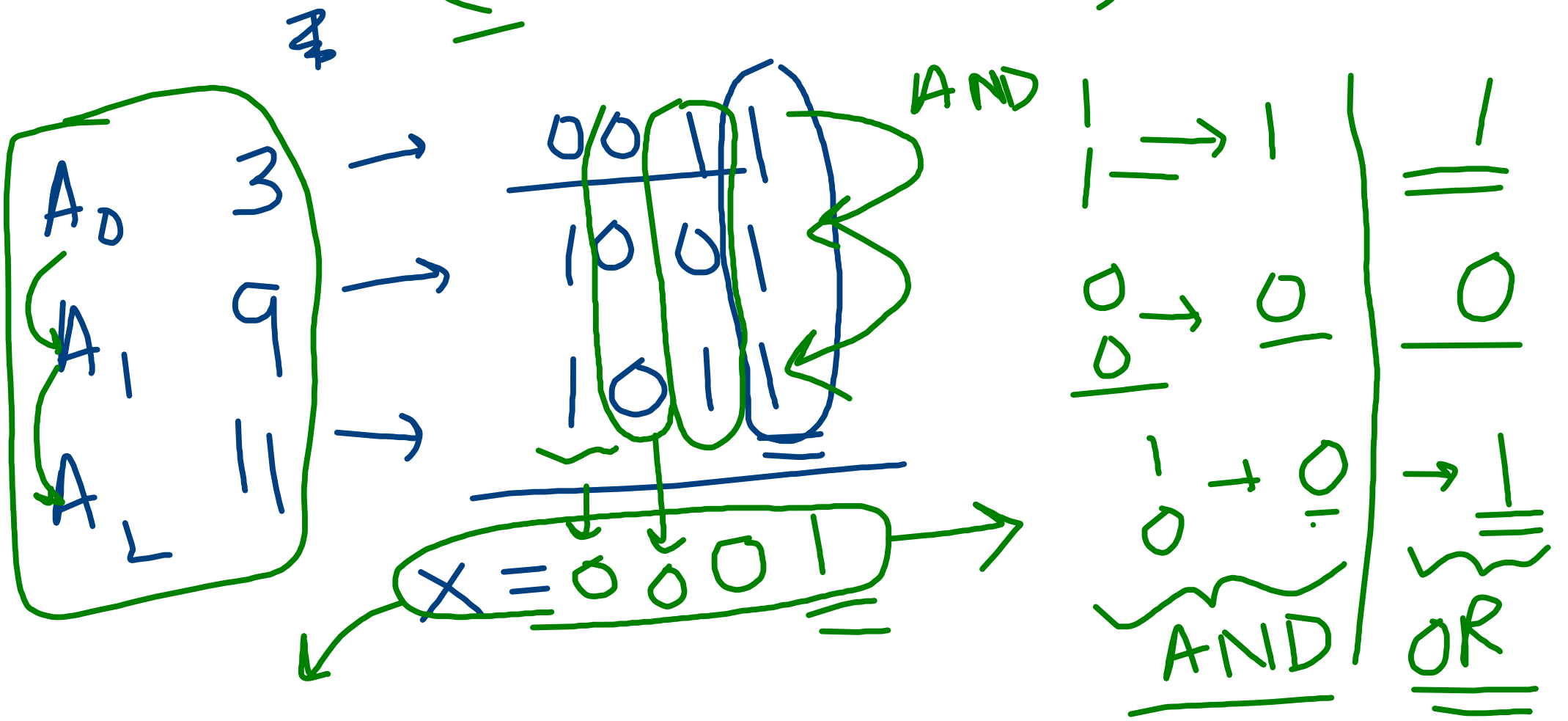
0 OR 1 = 0 OR 0

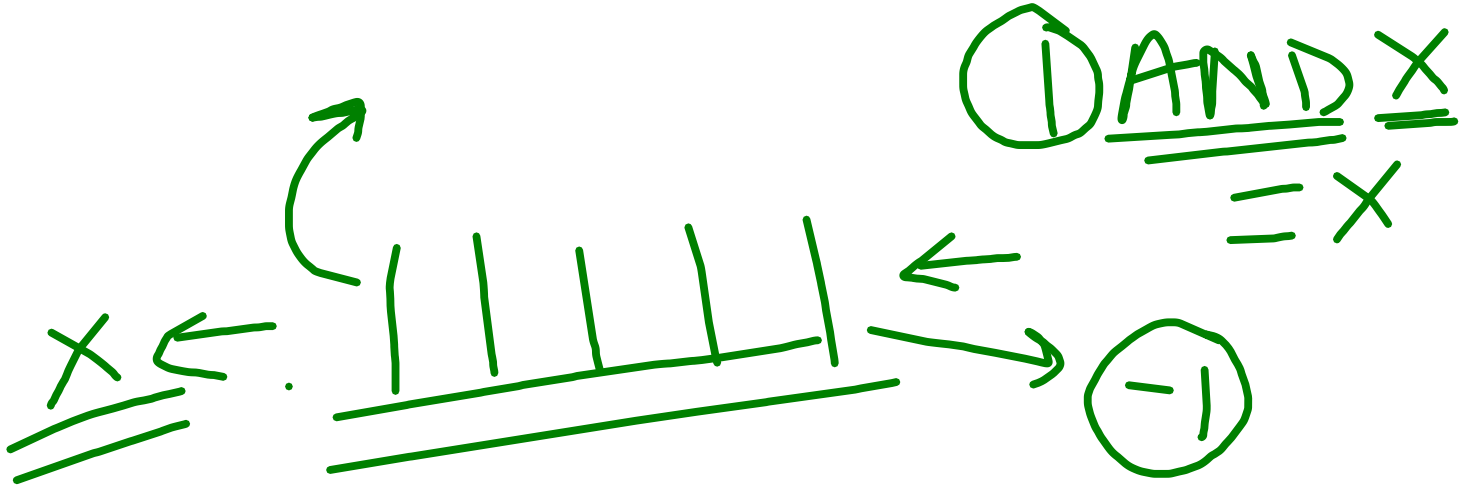
X = 0

X = 1



$$(A_0 \oplus X) \vee (A_1 \oplus X)$$





min = MAX X

X = A_0

X AND A_1

X AND A_2