→ BackTracking →

Doubt Session → Thursday

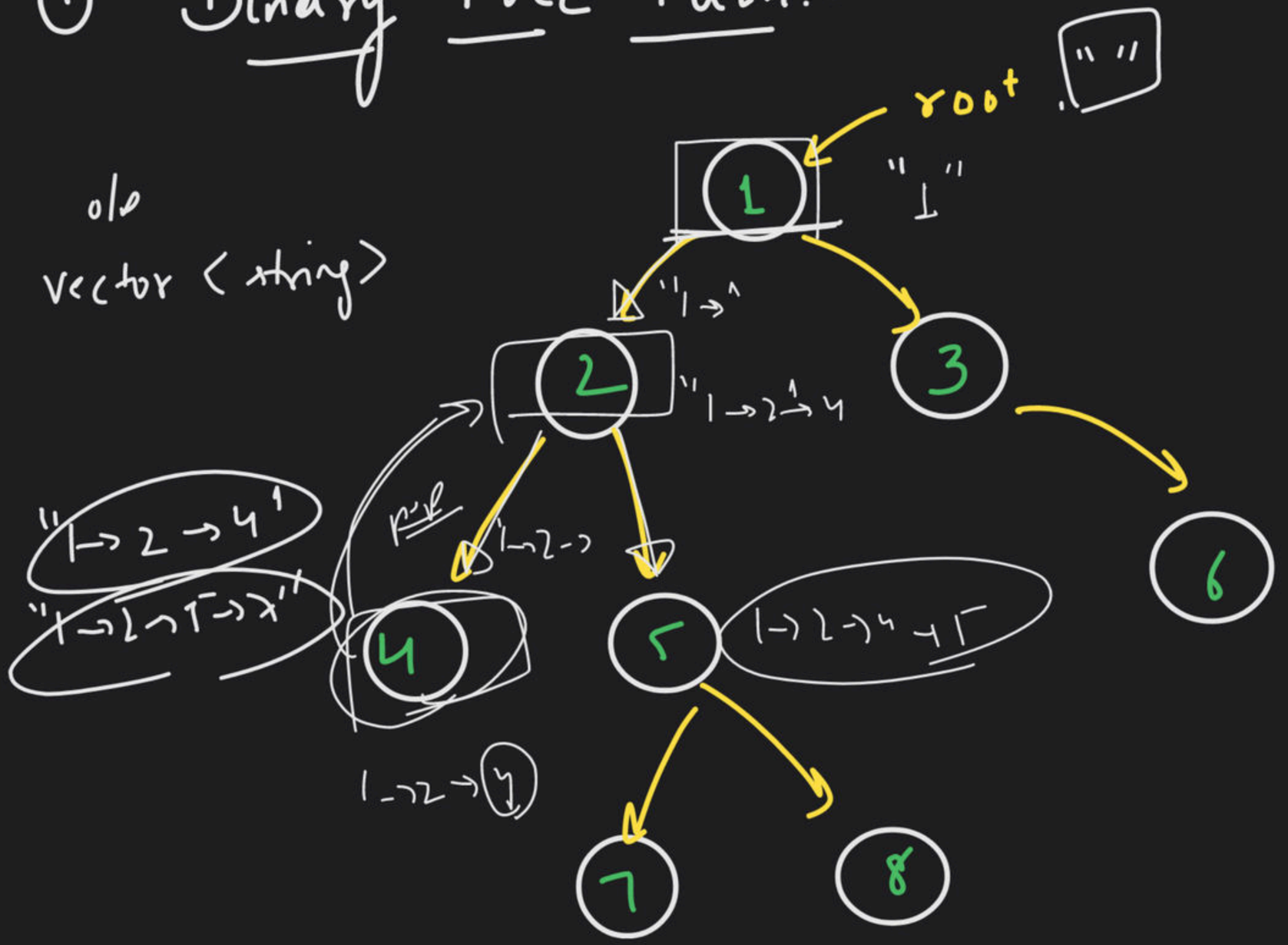
↓

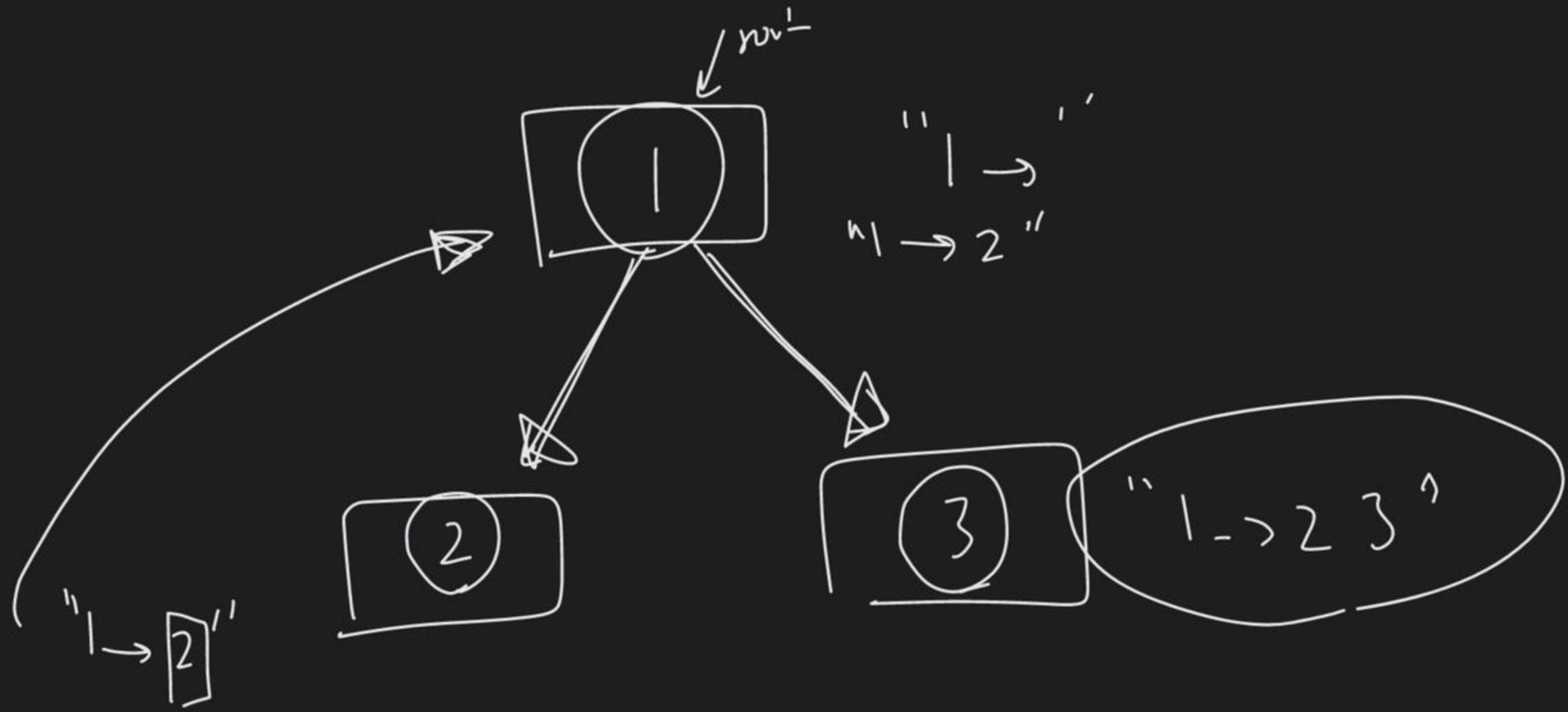
9-11 pm

① Binary Tree Path:-

o/p

vector < string >

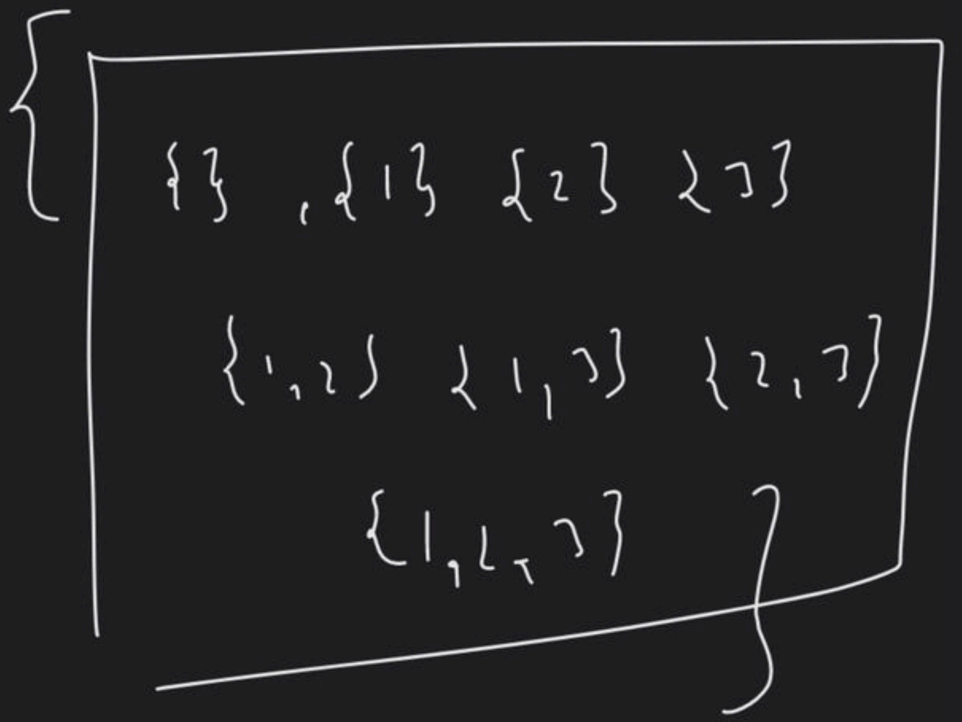



root
1
""
"1 →
"1 → 2"
2
3
"1 -> 2 3"
"1 → 2"

② Subsets:- i/p → arr[ ] → {1, 2, 3}

o/p → vector<vector<int>>

↳ subsets



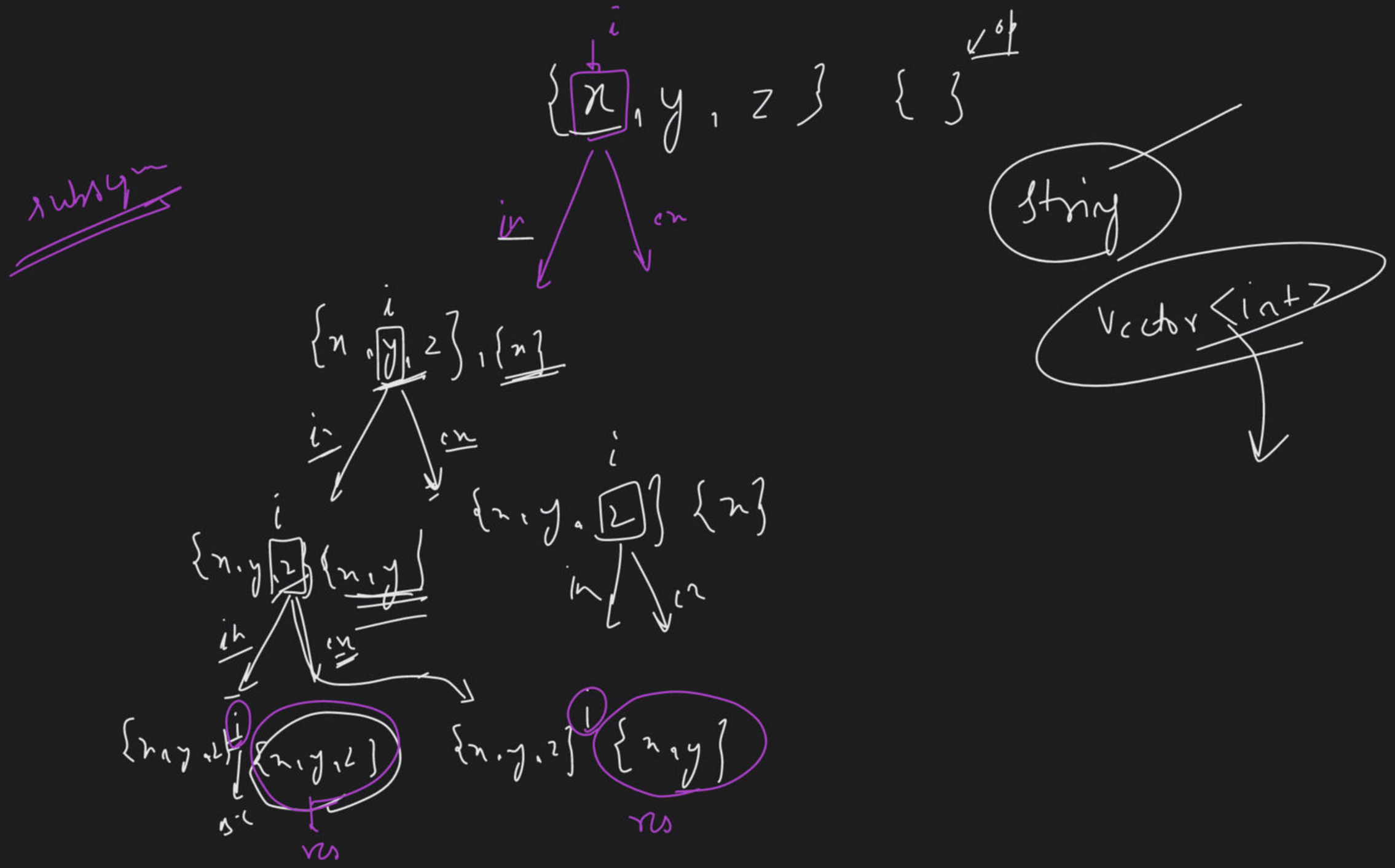
Reload
Karlo

	x	y	z	
1	✗	✗	✗	$\{\ \}$
1	✓	✗	✗	$\{x\}$
	✓	✓	✗	$\{x, y\}$
1	✓	✓	✓	$\{x, y, z\}$
	✗	✓	✓	$\{y, z$

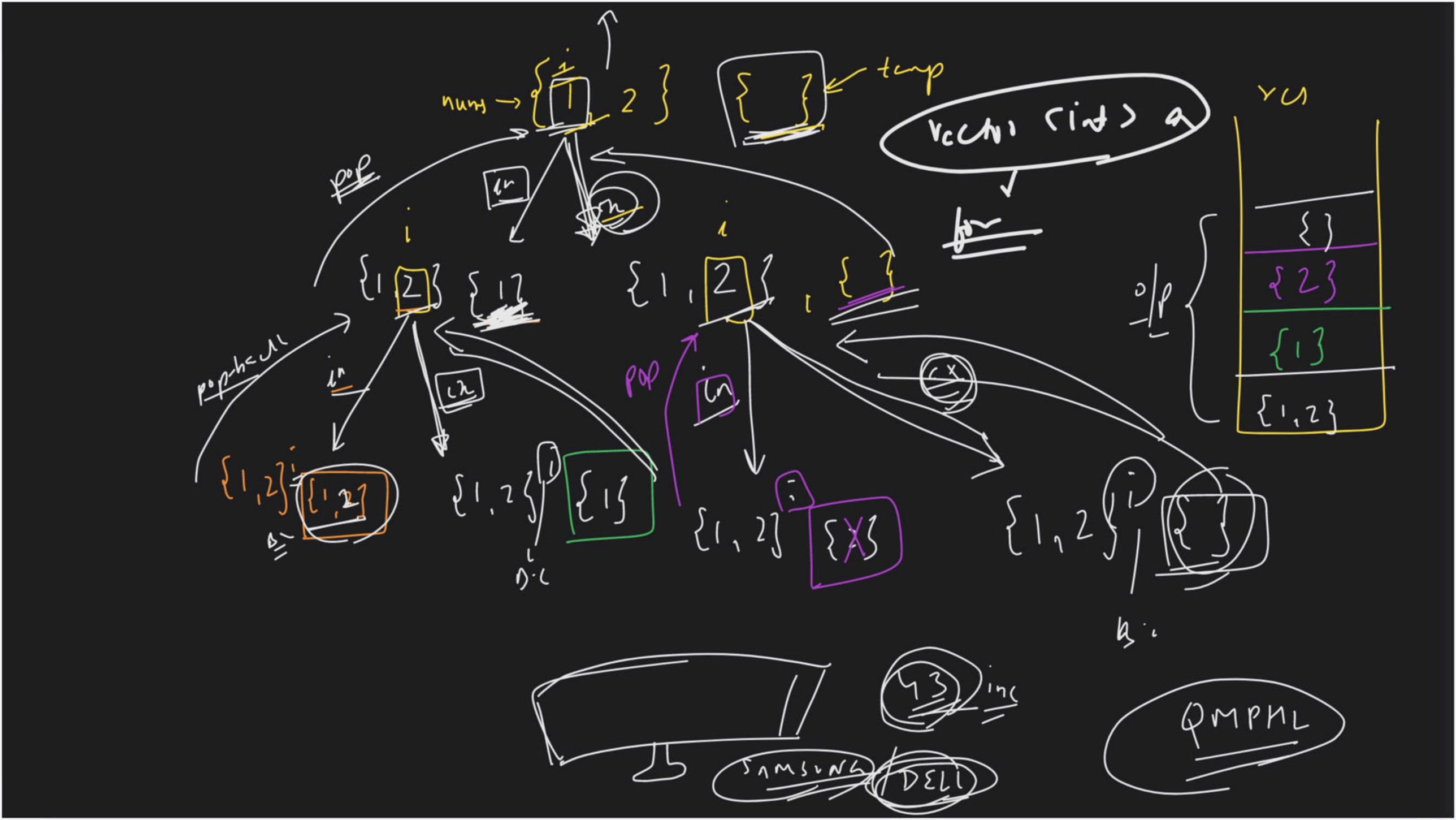
1

1

subseq

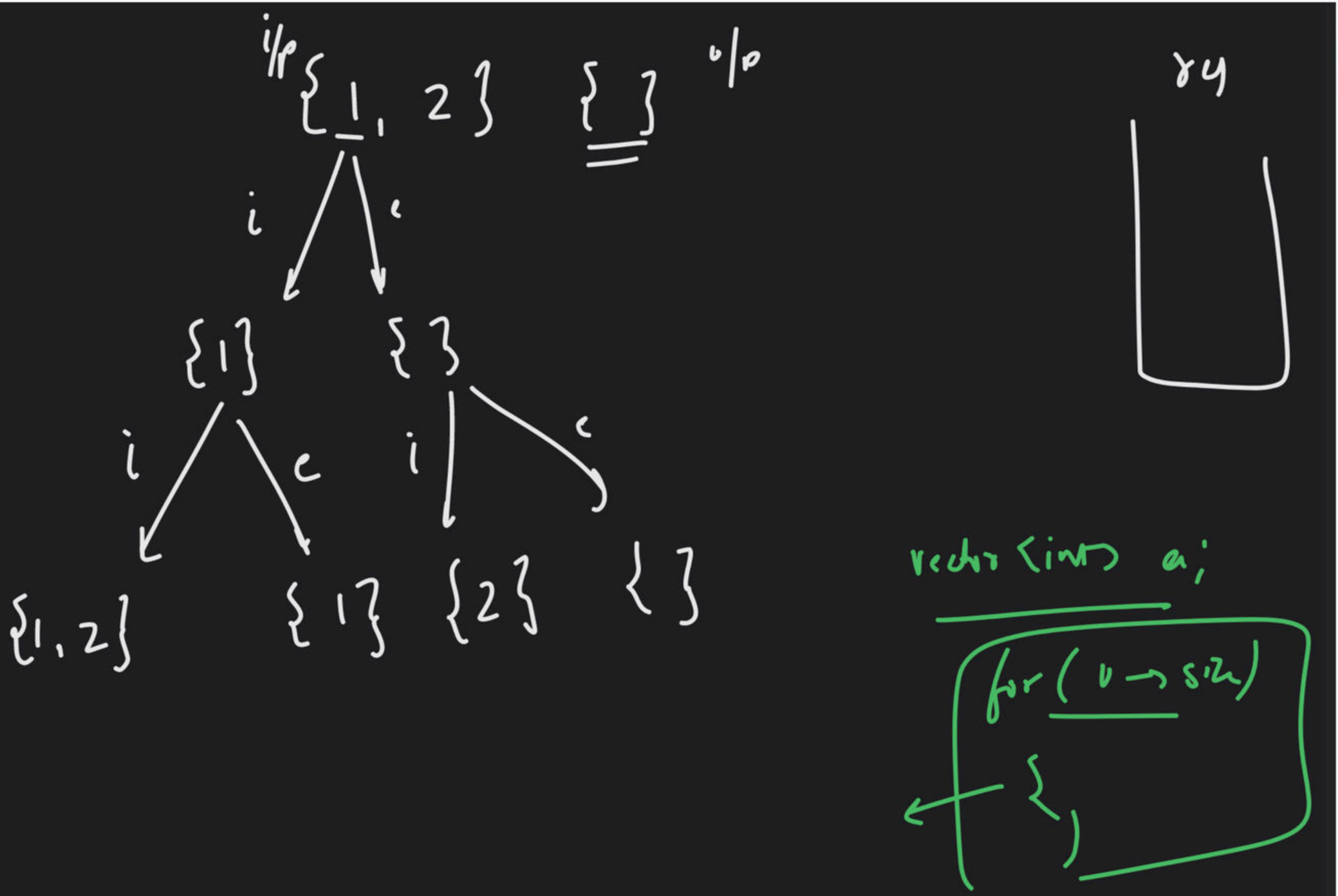


i
{x, y, z}
{ }
op
in
ex
{x, y, z}, {x}
{x, y, z}, {x}
{x, y, z}, {x, y}
{x, y, z}, {x}
{x, y, z}, {x, y, z}
{x, y, z}, {x, y}
res
res
String
Vector<int>



nums
temp
vector <int> a
for
pop
pop-back
in
ex
o/p
{ }
{2}
{1}
{1,2}
43 inc
SAMSUNG
DELI
QMPHL

vector <int> temp ;


i/p
{1, 2}
{ }
o/p
i
e
{1}
{ }
i
e
i
e
{1, 2}
{1}
{2}
{ }
xy
vector<int> a;
for(i -> size)
{
}

Sum of XORs

$\{a, b, c\} \rightarrow$ XOR total $\rightarrow \boxed{a \wedge b \wedge c}$

$\{1, 2\} \rightarrow$

subset	XOR
$\{\}$	0
$\{1\}$	1
$\{2\}$	2
$\{1, 2\}$	3

$\rightarrow \boxed{6}$ sum

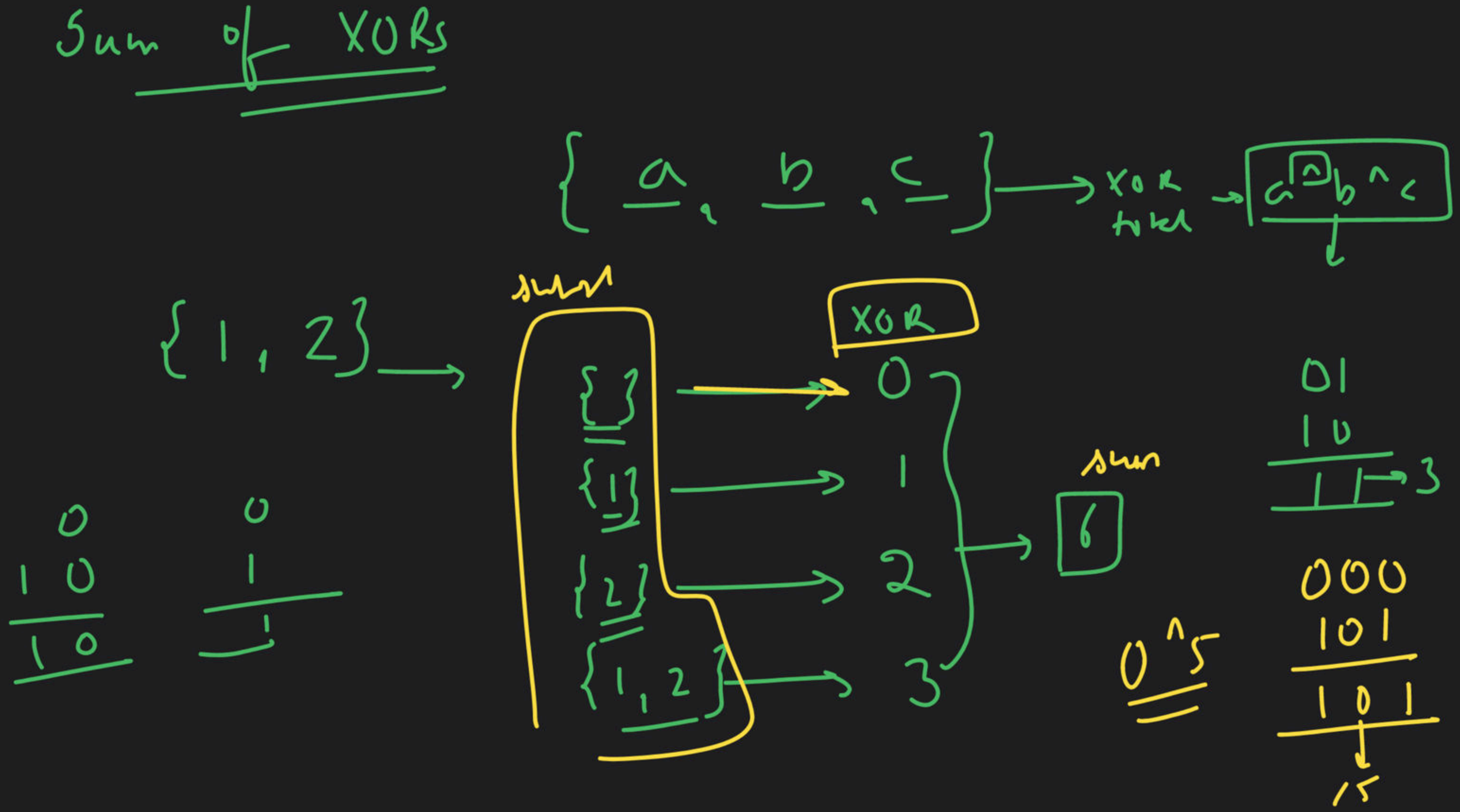
$$\begin{array}{r} 0 \\ 10 \\ \hline 10 \end{array} \qquad \begin{array}{r} 0 \\ 1 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 01 \\ 10 \\ \hline 11 \end{array} \rightarrow 3$$

$$\begin{array}{r} 000 \\ 101 \\ \hline 101 \end{array}$$

$\downarrow$ 15

$0 \wedge 5$



Decimal to Binary

1 → 0001

2 → 10

3 → 11

4 → 100

5 → 101

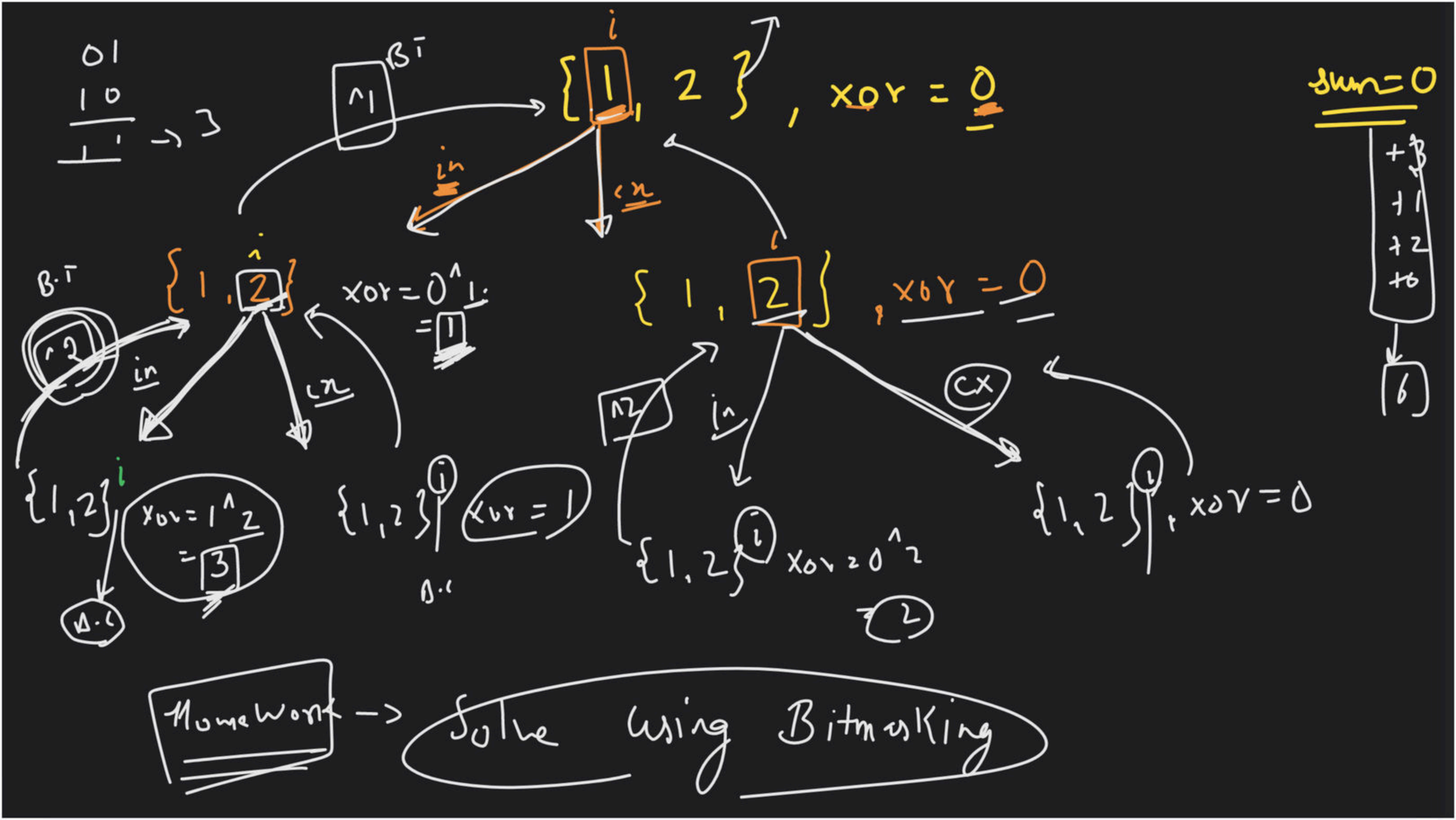
6 → 110

7 → 111

8 → 1000

9 → 1001

10 → 1010


01
10
-> 3
BT
^1
i
{ 1 , 2 }
, xor = 0
in
cx
sum = 0
+3
+1
+2
+6
6
B.T
^2
{ 1 , 2 }
xor = 0 ^ 1
= 1
{ 1 , 2 }
, xor = 0
{ 1 , 2 }
xor = 1 ^ 2
= 3
{ 1 , 2 }
xor = 1
{ 1 , 2 }
xor = 0 ^ 2
= 2
{ 1 , 2 }
, xor = 0
Home Work -> Solve using Bitmasking

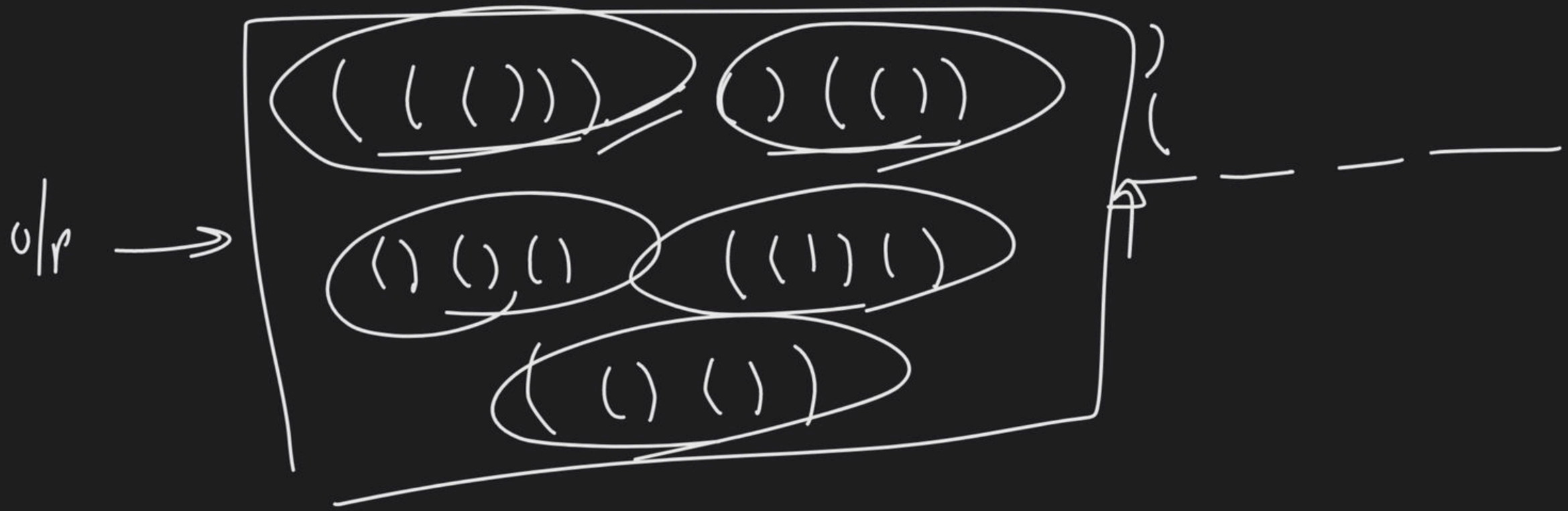
Homework → Binary Watch → Easy

Generate Parenthesis

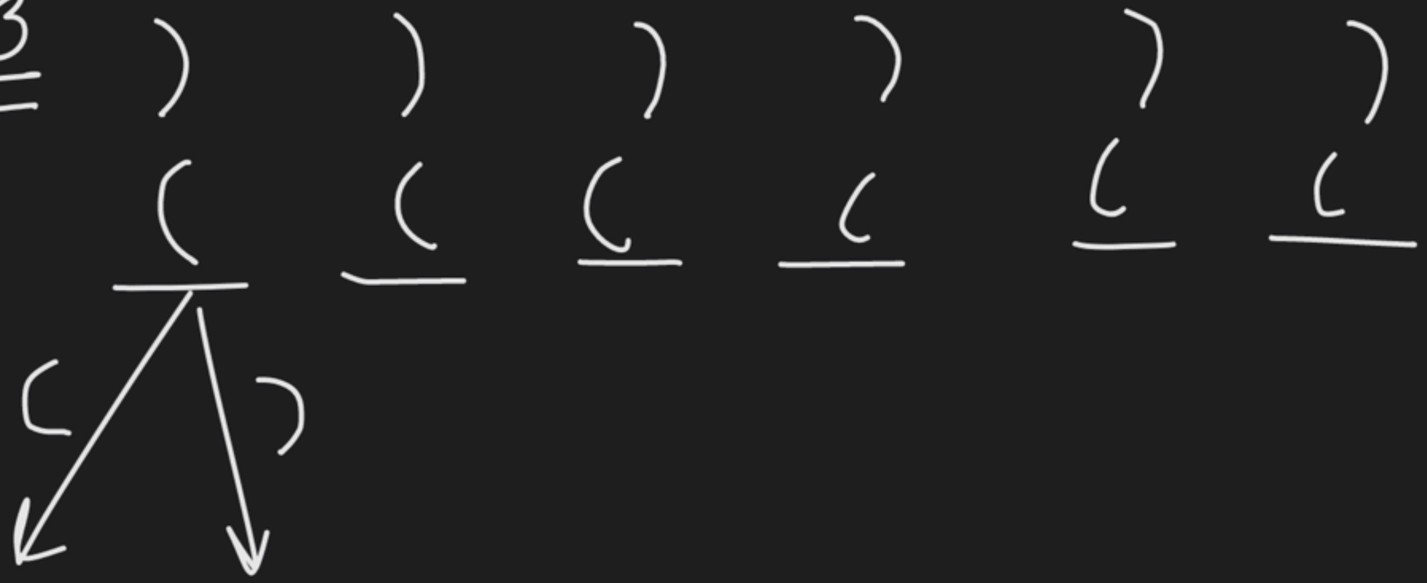
i/p → n = 3

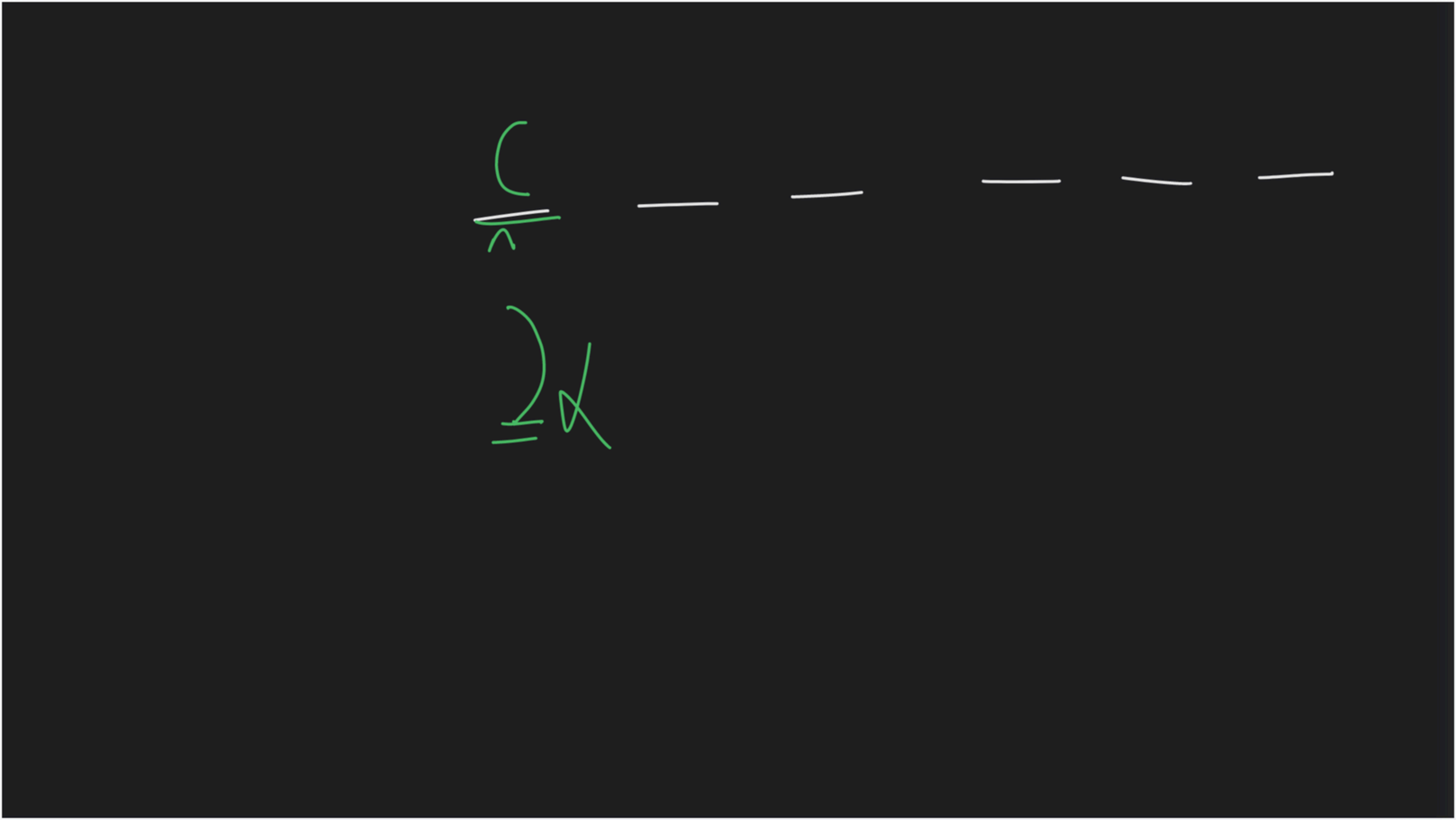
(((→ open Br.

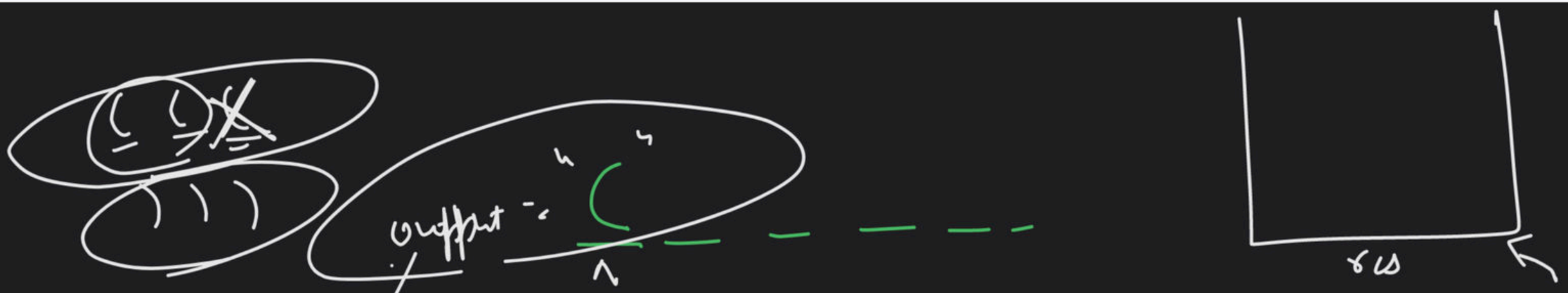
))) → open Br



n = 3







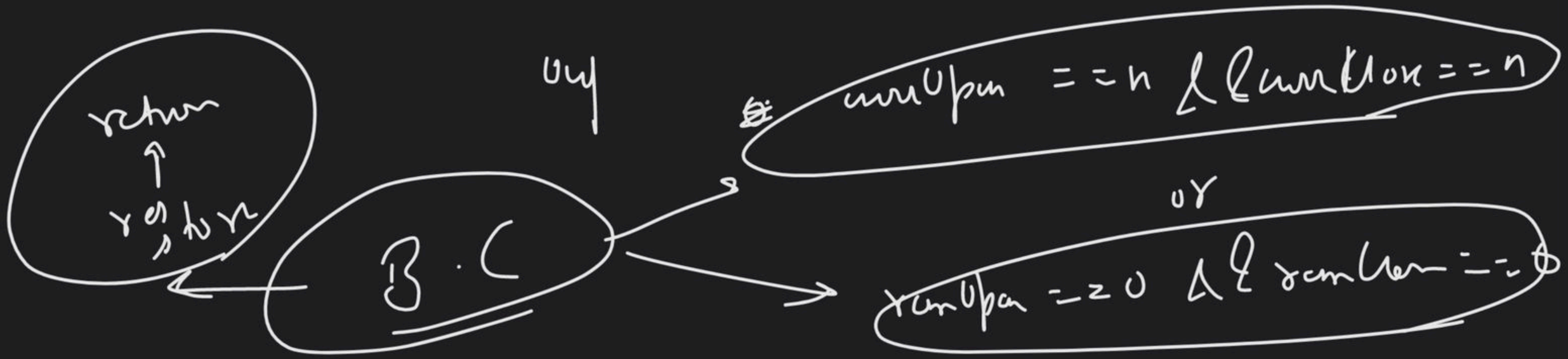
temp

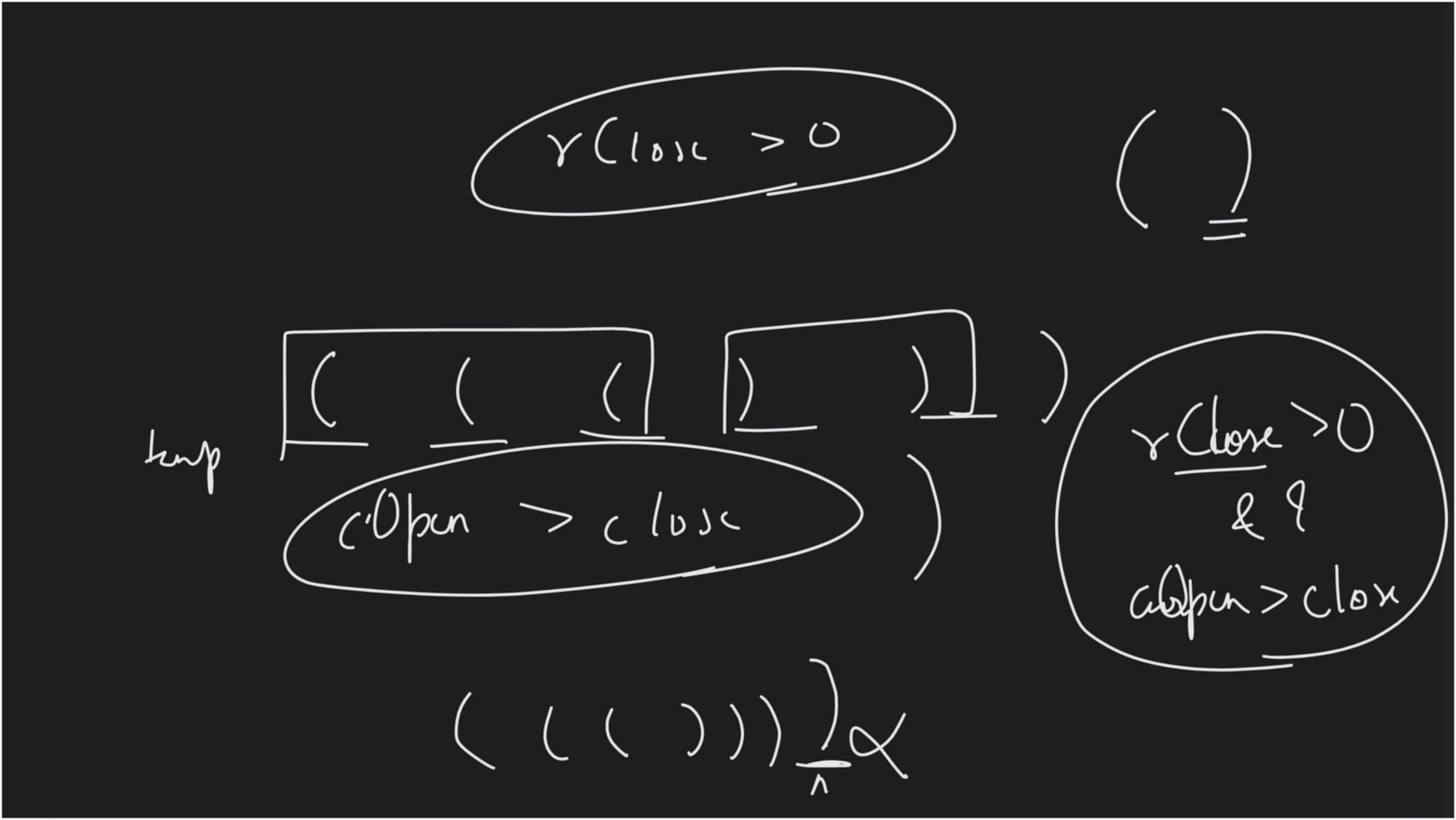
↳ currOpen = 1

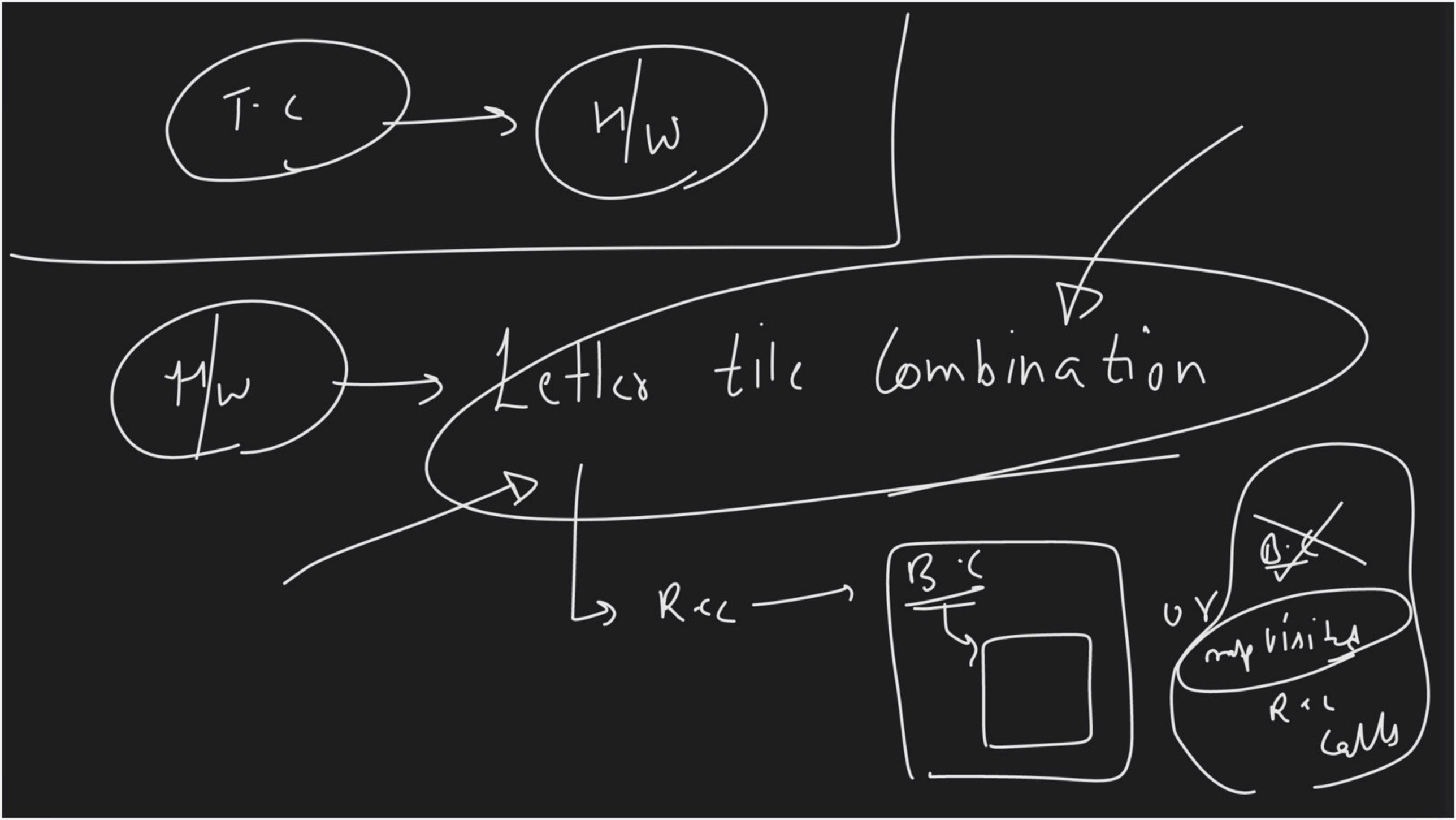
↳ currClose = 0

↳ remOpen = 2 or n-1

↳ remClose = 3 or n




r Close > 0
( )
temp
((( ))
c Open > c Close
r Close > 0
&
c Open > c Close
((( )))
^

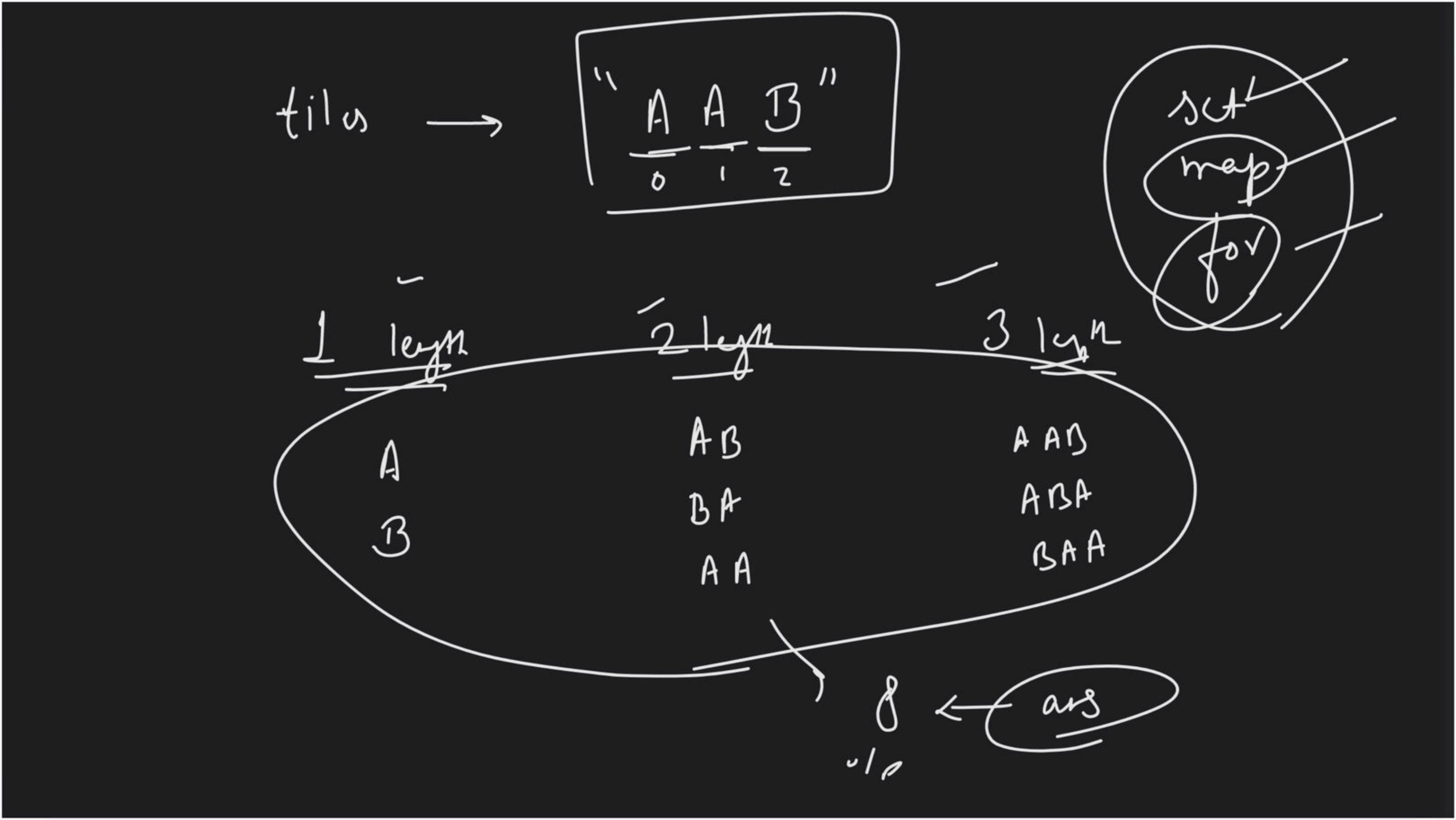


T.C → H/W

H/W → Letter tile Combination

→ R.C → B.C

or ~~B.C~~ map visited R.C calls


tiles
"AAB"
0 1 2
set
map
for
1 length
2 length
3 length
A
B
AB
BA
AA
AAB
ABA
BAA
ans
o/p

Binary tree Path

Subsets

Subsets Sum of XOR total → (H/L Bit Mask)

(H/L) → Binary Watch

Generate Parentheses

(H/W) → Letter tile Comb.

Bye Bye

Thursday

↳ Doubt Session

↓

9-11 pm

4 sessions Sat/Sun

4-6