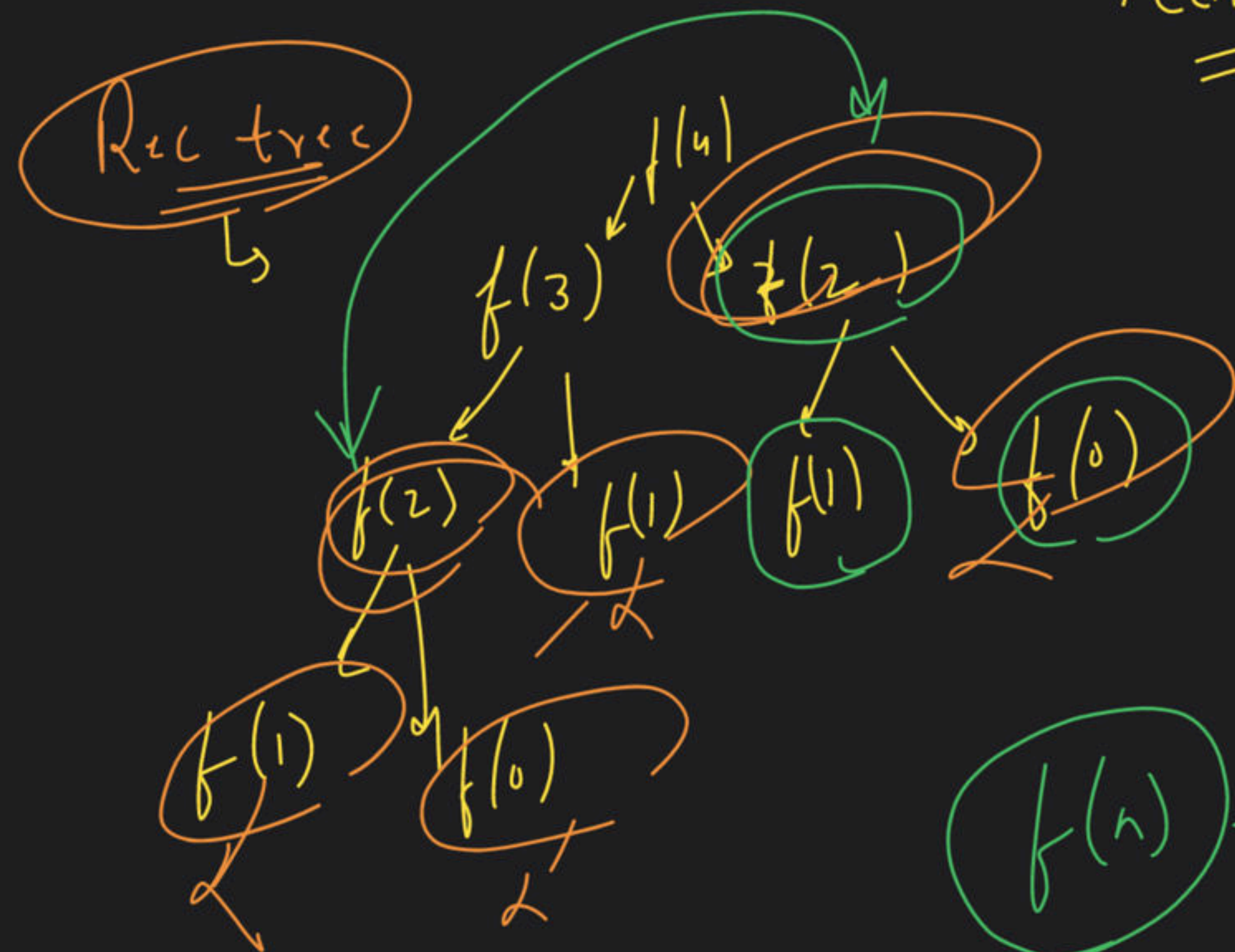


# DP Class - 1

Special class

→ DP → Dynamic Programming  
↳ Technique



when  
to apply

- DP Lagged
- ① Overlapping Subproblems
  - ② Optimal Substructure

$$f(n) = f(n-1) + f(n-2)$$



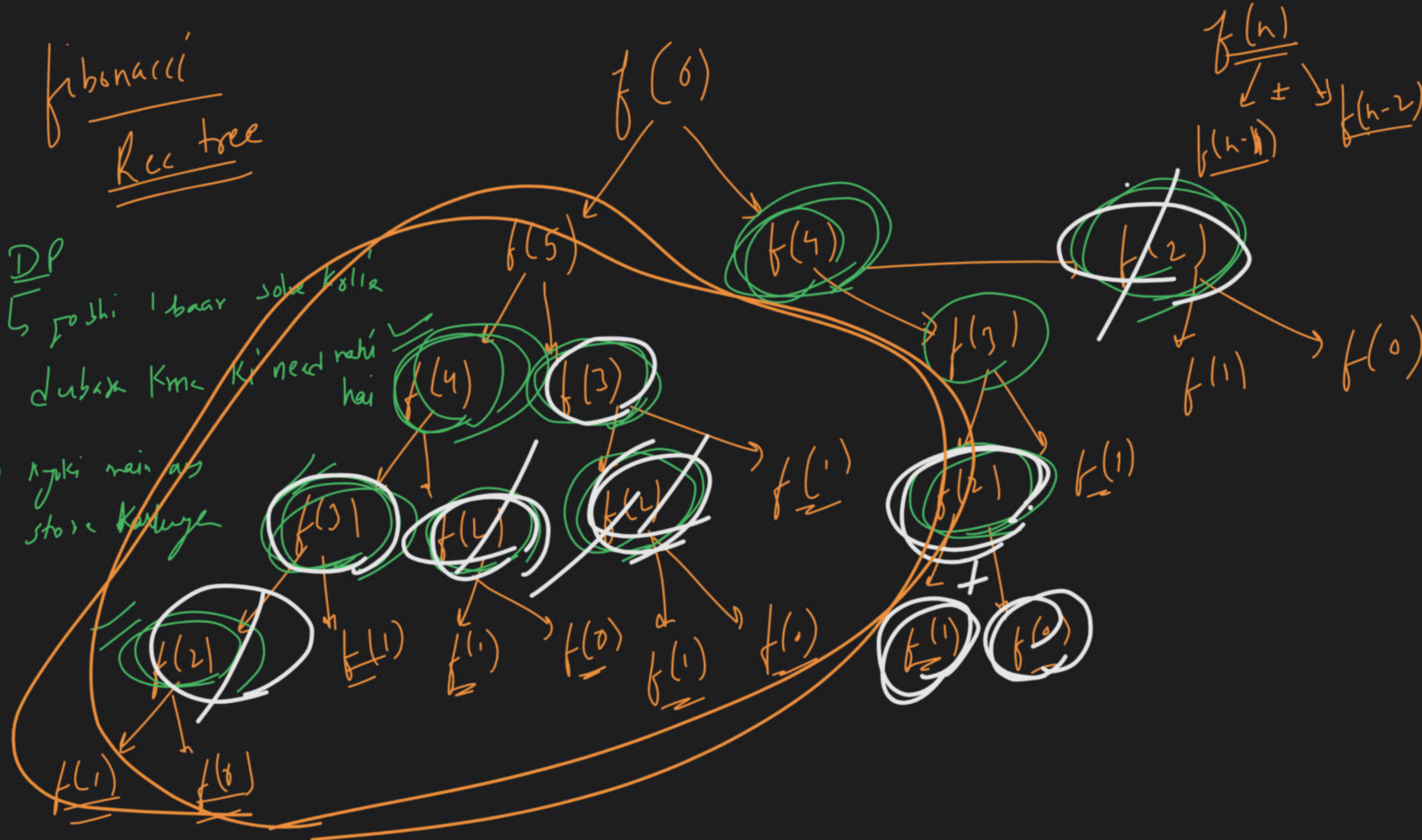
# Fibonacci Rec tree

DP

↳ jabhi 1 baar solve krliya

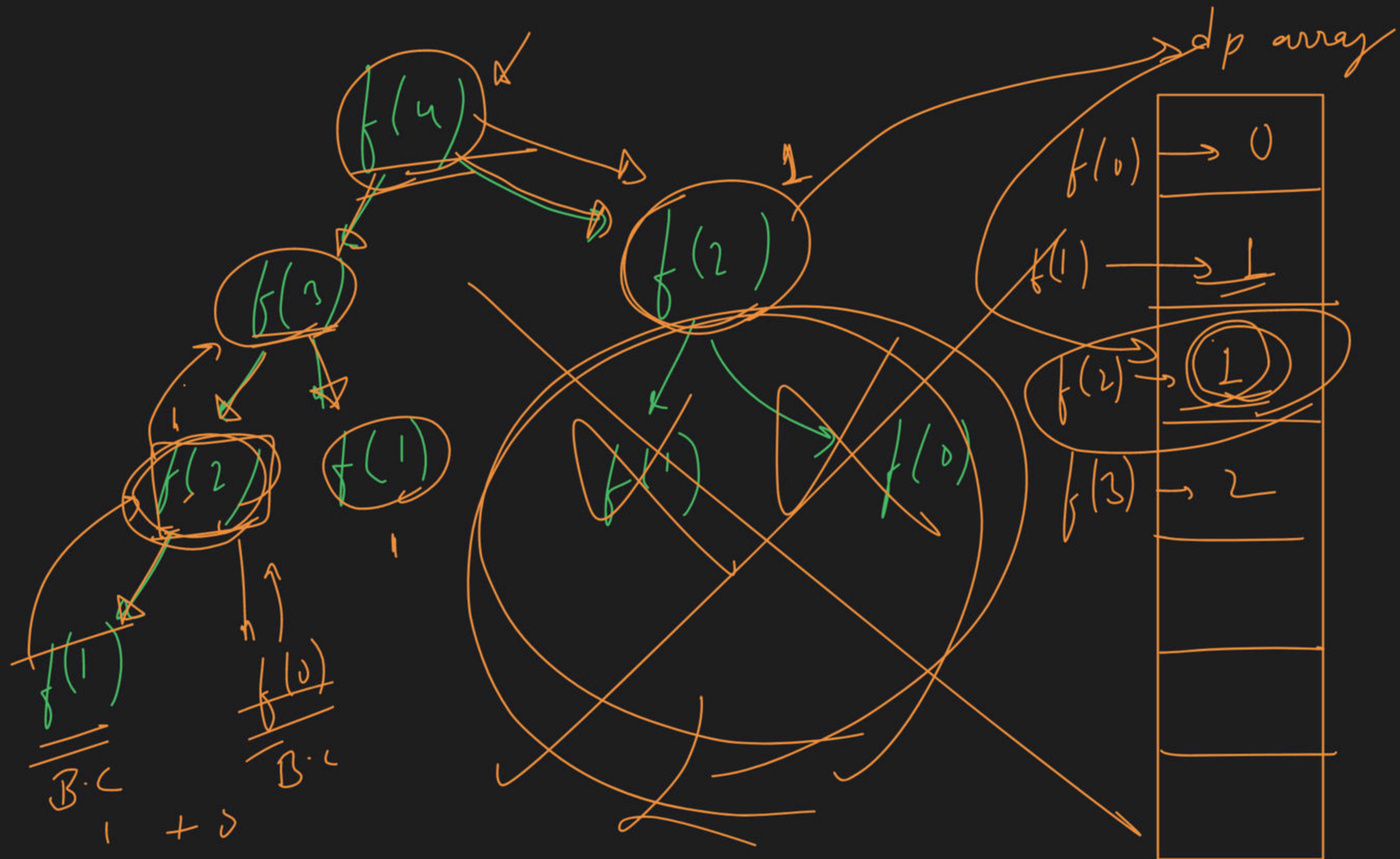
dubara Krne ki need nahi hai

↳ kyuki main ans store krliye

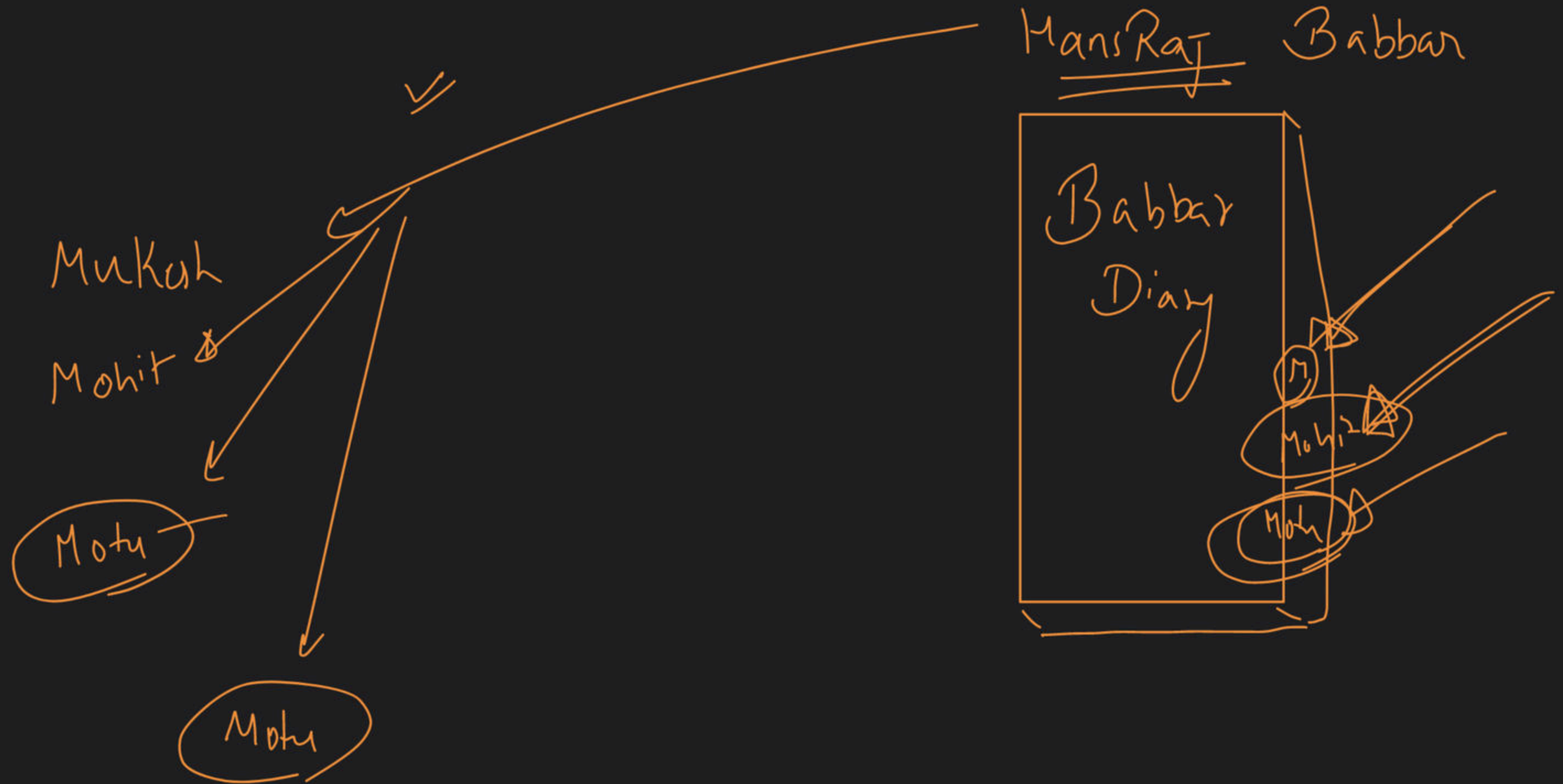












MansRaj Babbar

Babbar  
Diary

M

Mohit

Motu

hana kya



galti

for Keshi  
na dohraye

→ Raja



dohraye

→ lallu



DP

Question :-

Top-down approach

Rec +  
memoisation

Bottom-up approach

loop + D.S

Space Optimisation

if possible

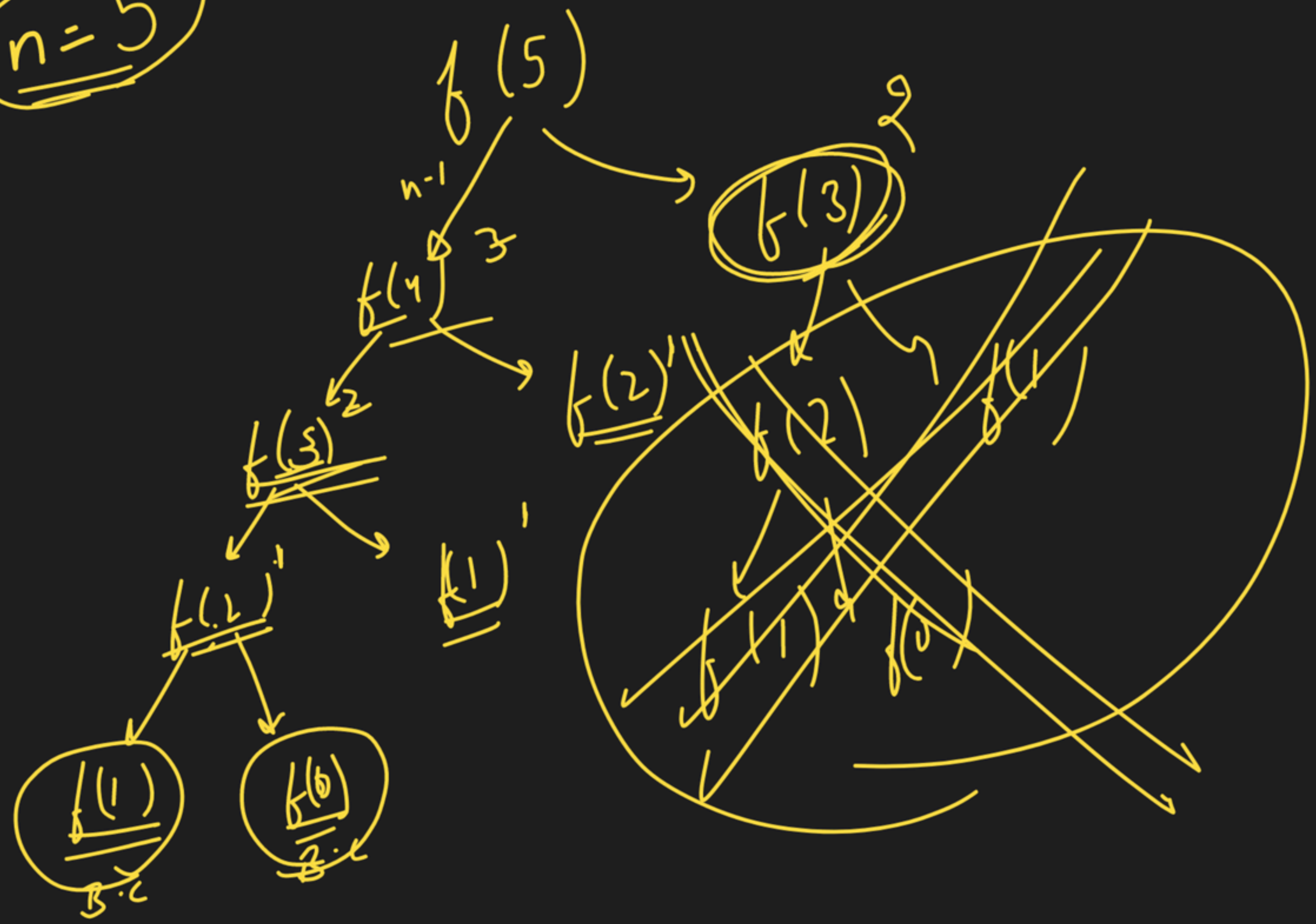
Pattern find

→ ①  
→ ②  
→ ③



Top-down → Rec + Mem

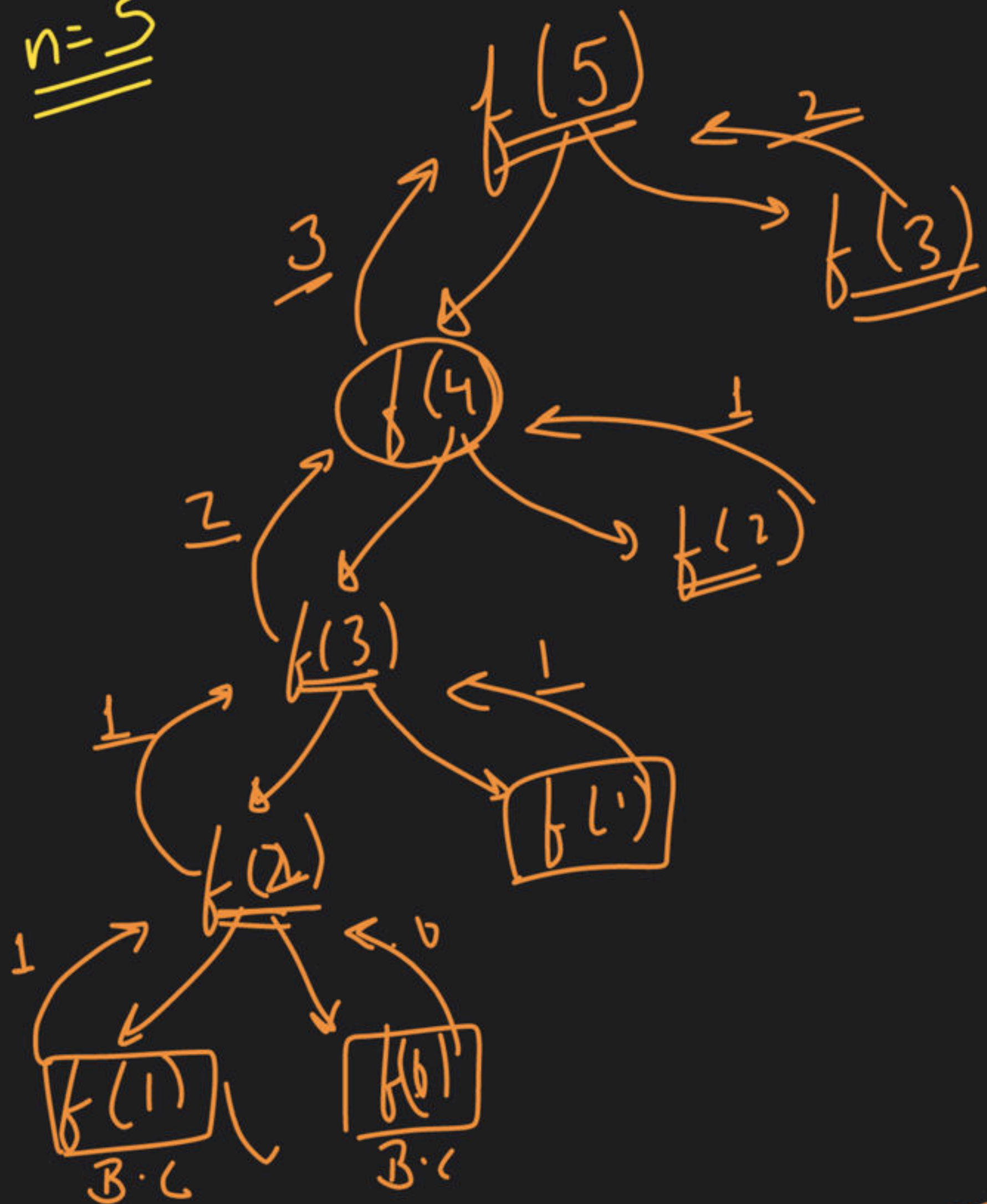
n=5



dp	
0	0
1	1
1	2
2	3
3	4
5	5



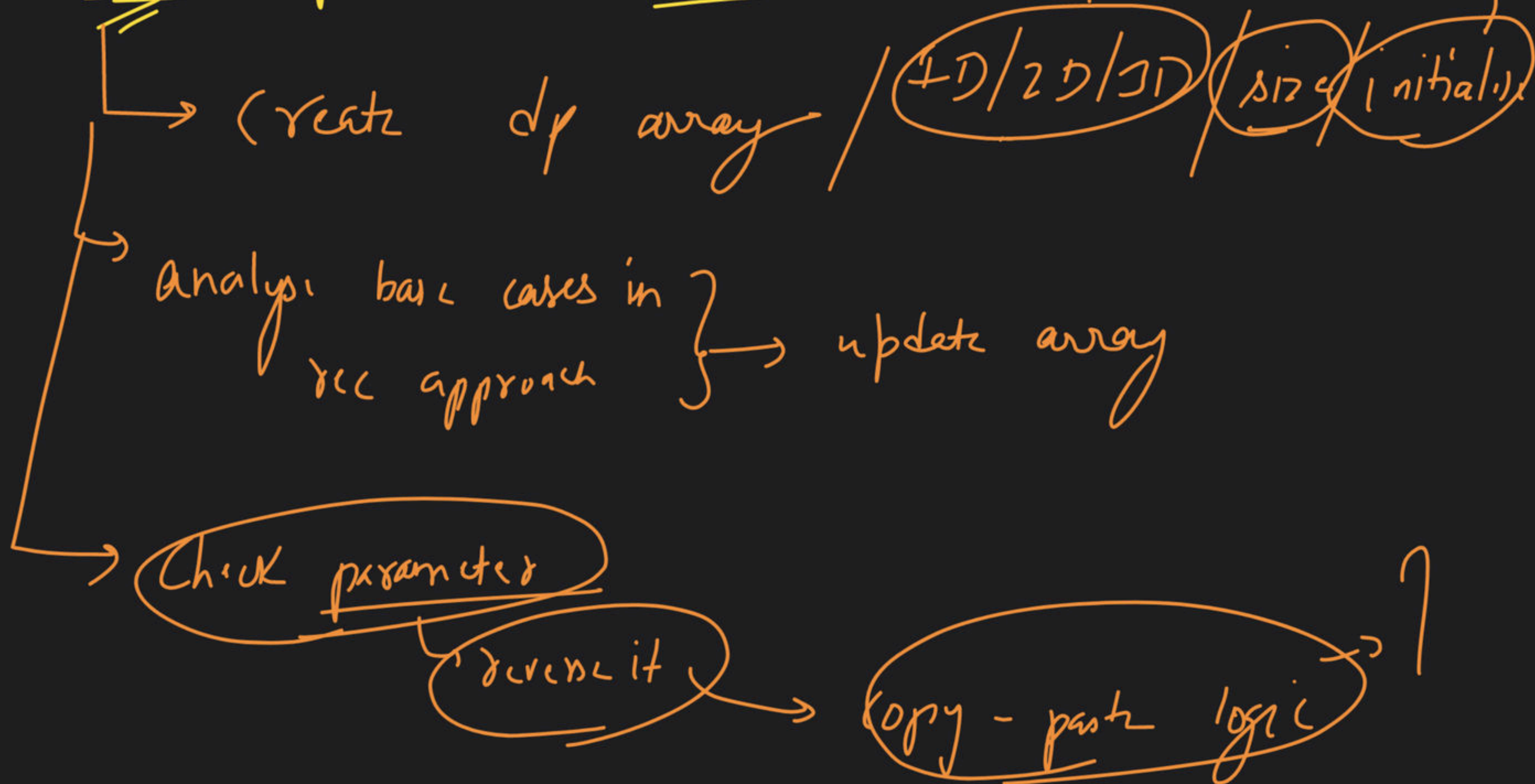
n=5



dp	
-1	0 =
-1	1 =
1	2 =
2	3 =
3	4 =
5	5 =



→ Bottom-Up → Iterative





→ Space Optimisation :-

Kal

Bottom-up

Pattern



















































