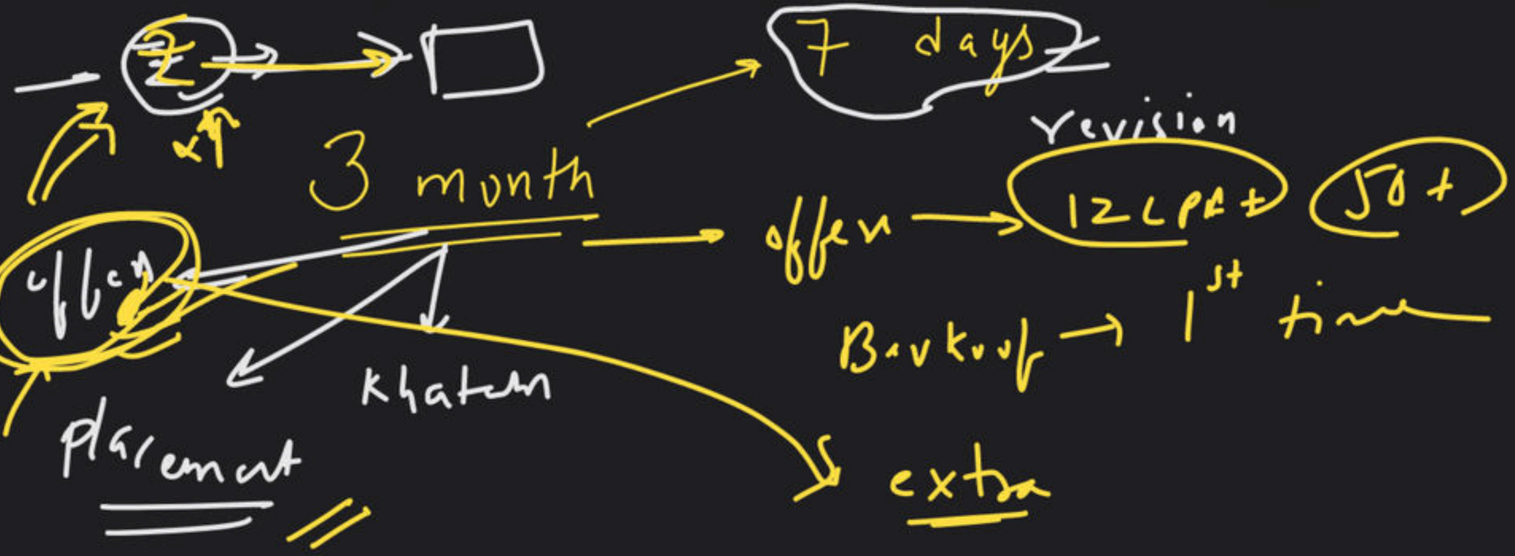
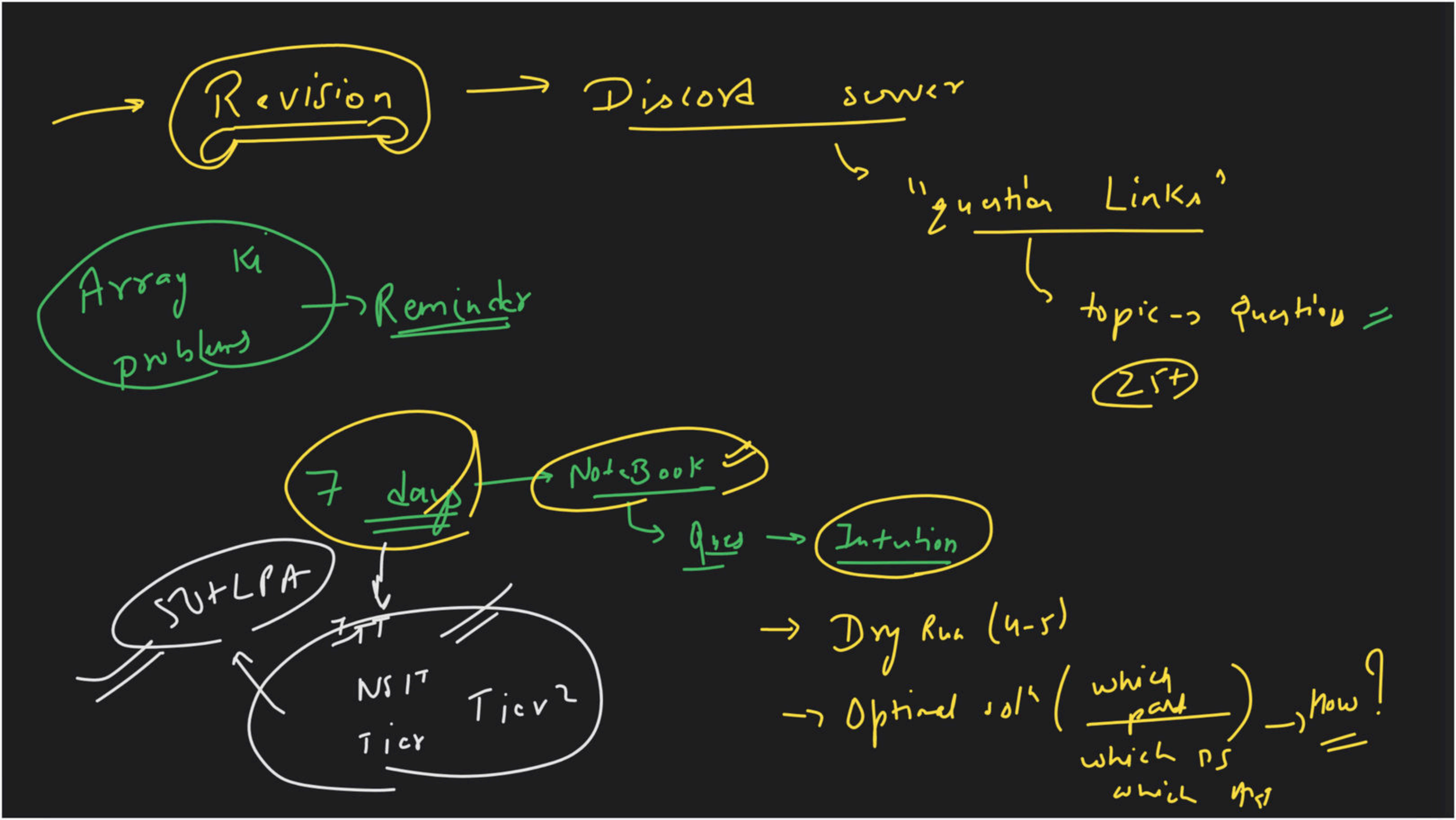
Doubt Clearing Session - Part XII

Foundation Course on Data Structures & Algorithm - III



Love Babbar • Lesson 12 • July 3, 2022


Revision
Discord server
"Question Links"
topic -> Question
25+
Array ka problems
Reminder
7 days
NoteBook
Intuition
SDE+LPA
NS IT Tier
Tier 2
Dry Run (4-5)
Optimal sol^n (which part / which DS which algo)
How?

→ Doubts:-

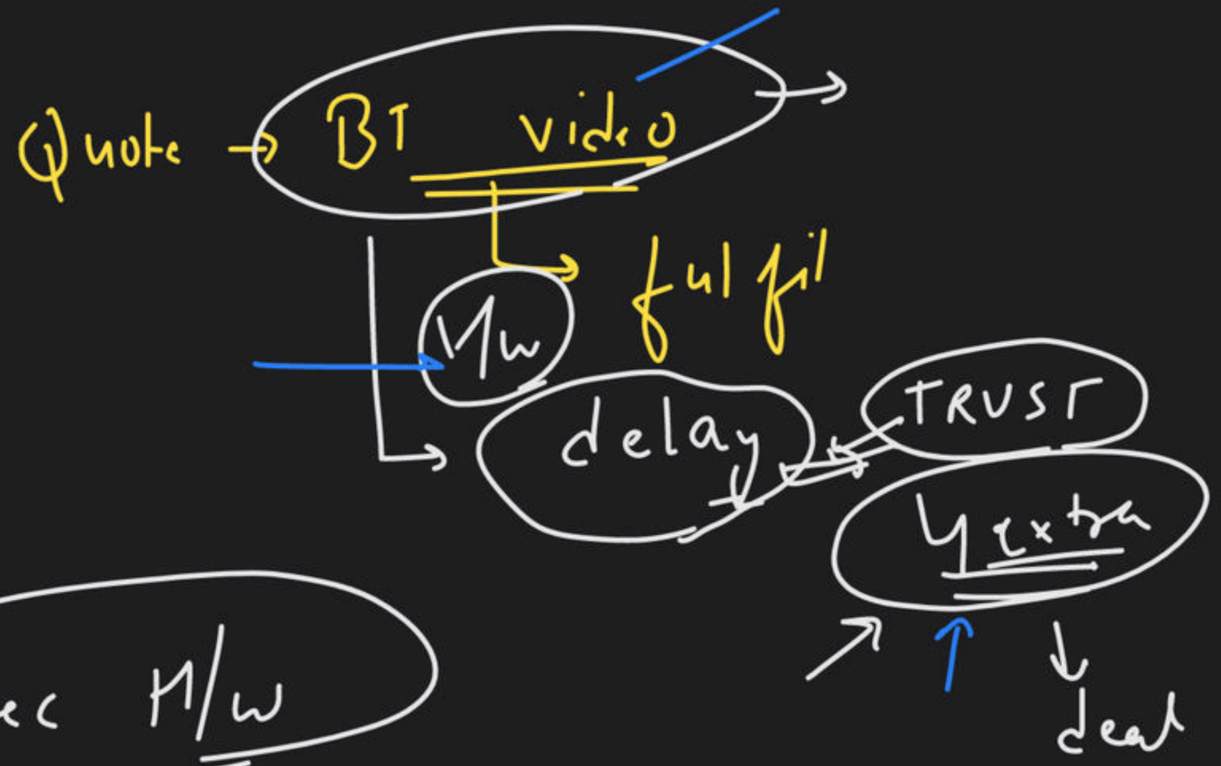
Pankaj -> 🙂

support @unacademy.com

↳ access NJ → SS

↳ payment → SS

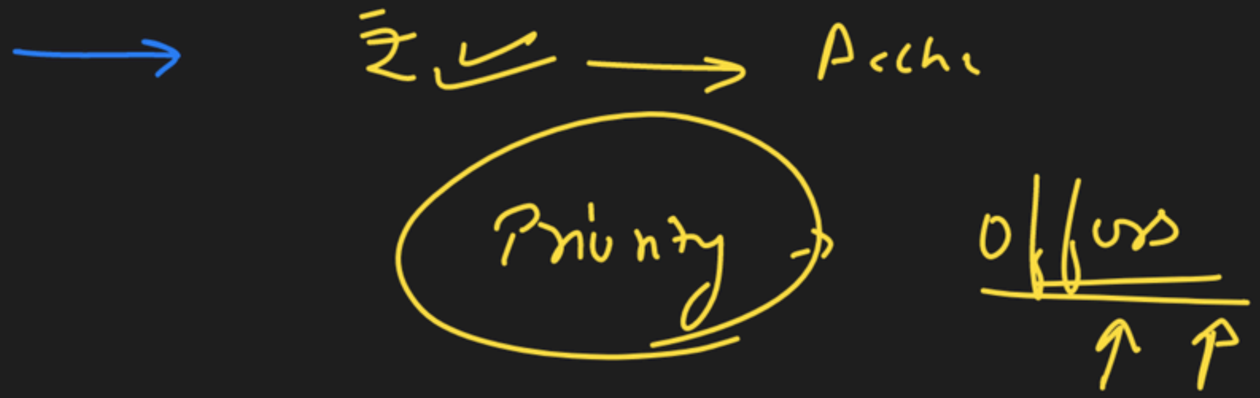
lovebabbar3@gmail.com



Rec M/w

↳ solve → DS

Edit → why guys?


Priority
Offset

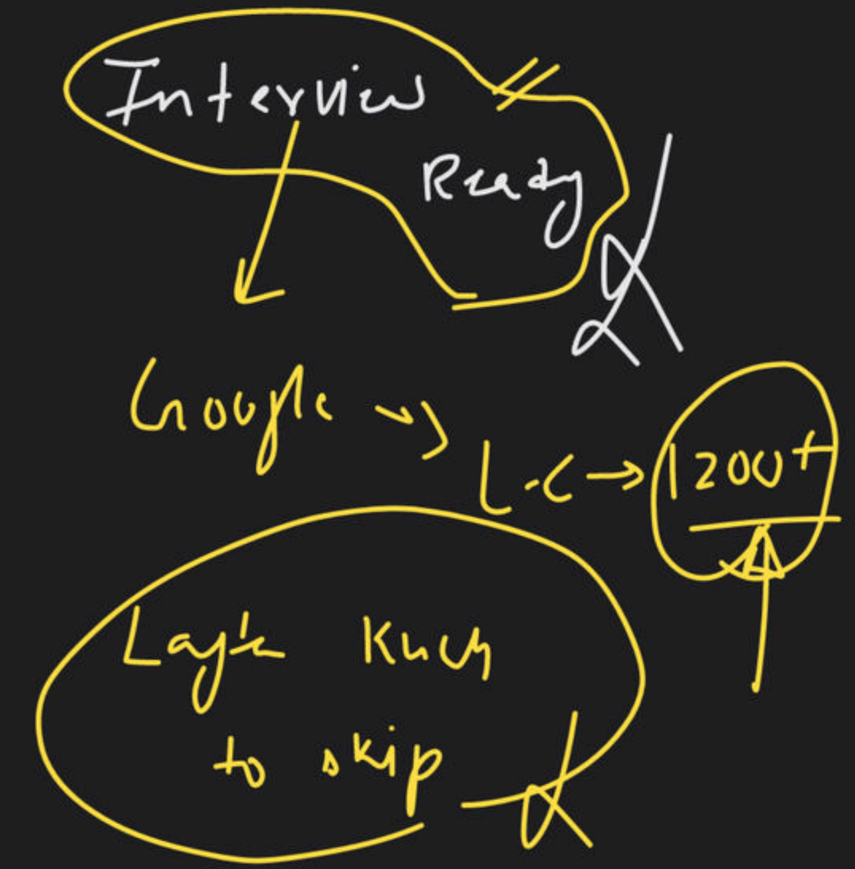
→ ① Doubt :-

Target

25+ 100+

25+ 100+

25+ 100+



Motivation:-

Company -> Josh tech.

Subarray sum equal to K

Deque

Morris traversal

1 Q -> TREE -> Inorder, Preorder, Postorder, LevelOrder

P -> C.

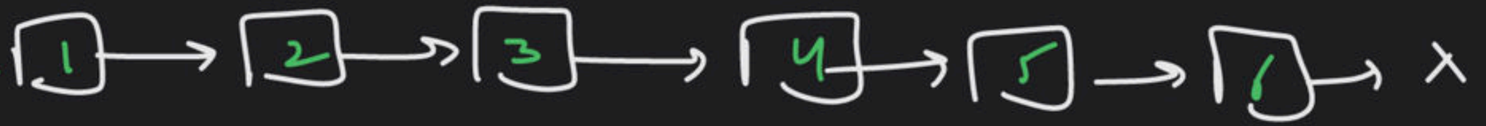
1 Q -> LL ->

1 Q -> Array -> Subarray sum equal to K -> Rec

Deque

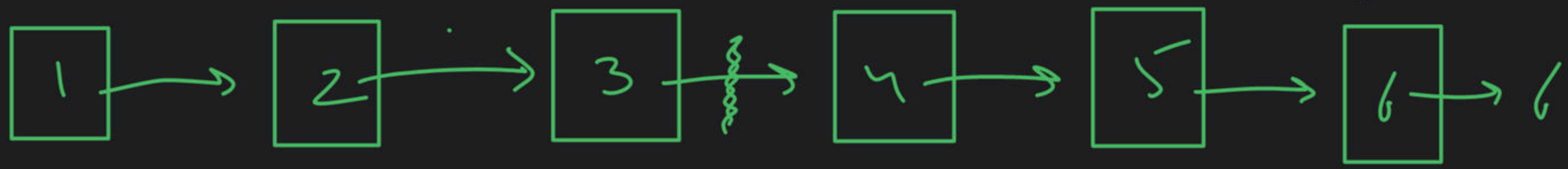
2 min

edge case o/p ->



S.C → O(1)

Overall → O(n)



T.C → O(n) → slow/fast

① 

temp2 = slow.next

T.C → O(n) ↓ Rev

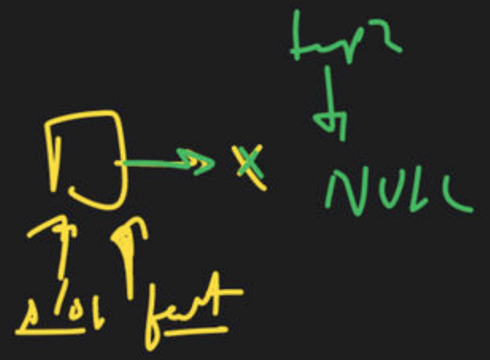
② 

O(n)

③ 

① NULL

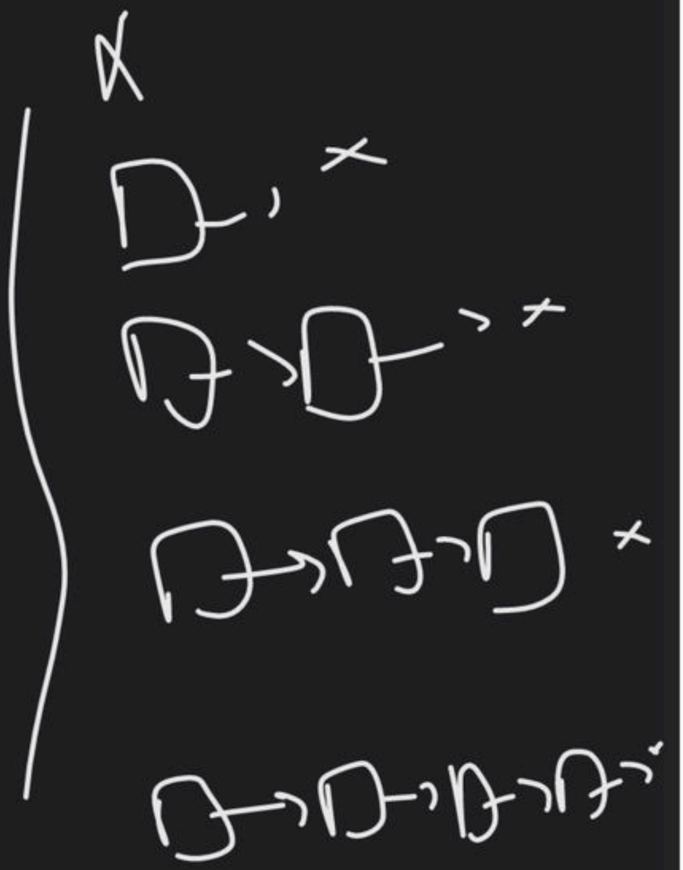
```
if (headA == NULL)
    return headA;
```



②

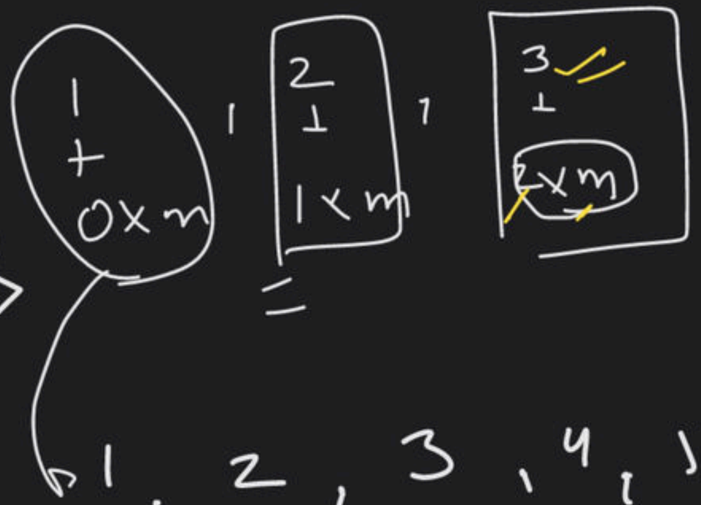
```
temp2 = slow->next
if slow->next == NULL
```

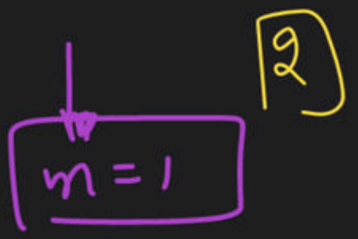
```
if (temp1 == NULL)
    return temp2
if (temp2 == NULL)
    return temp1
```



→ AirBus:-

① Prefix Sum ⟹





T.C → 1, 2, 3, 4, 5

P.S → 1 2+1, 3+(2+1) + 4+(3+2+1) + 5+(4+3+2+1)

1 3 , 6 , 10 , 15

prefix[i] = prefix[i-1]*m + val[i]

while(m--)

{

}

3

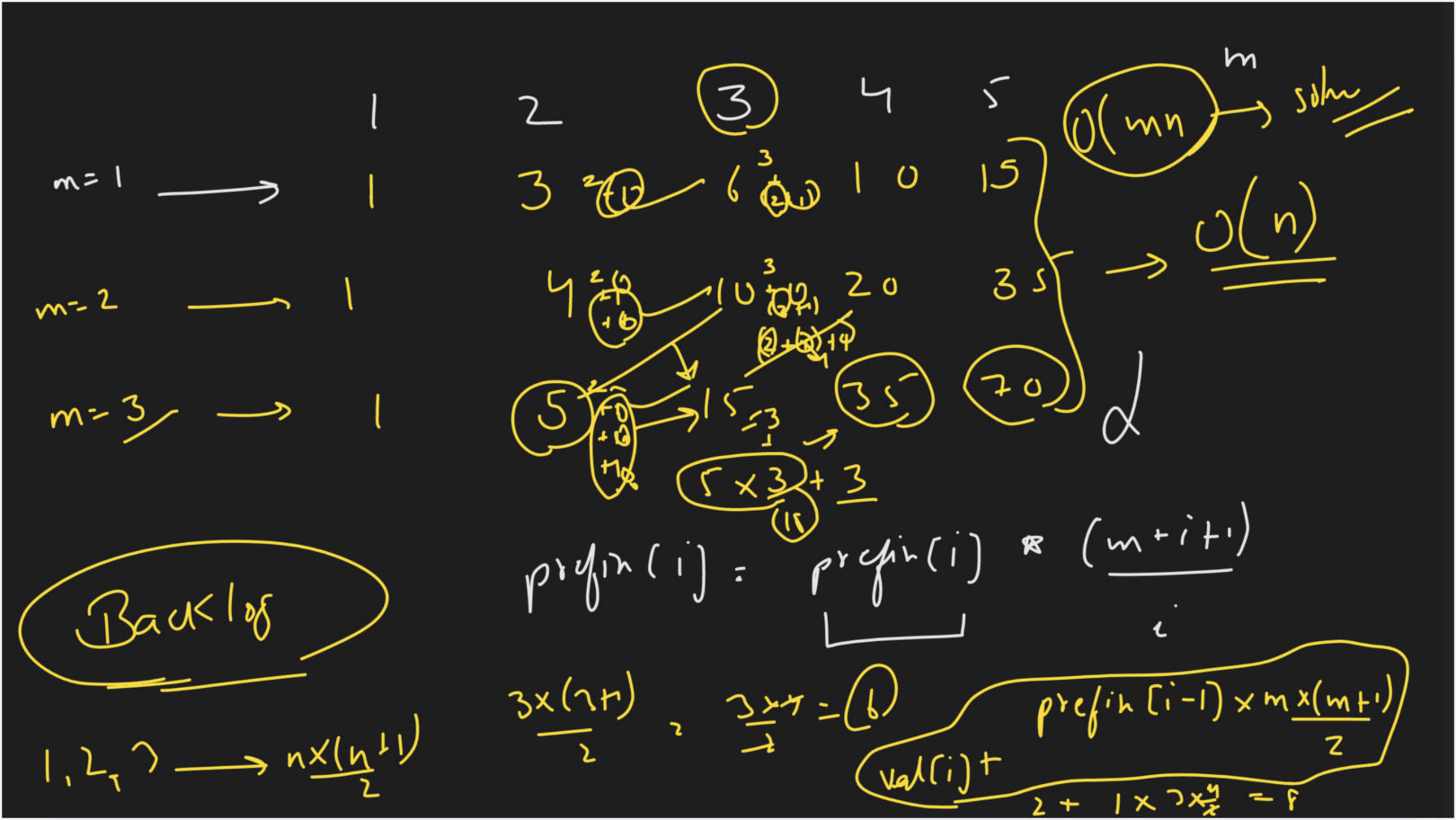
prefix[i] = m * (i*(i+1)) / 2

2

1 | 3 | 6 + (3+1) | 10 + (6+3+1) | + 15 + (10+6+3+1)

4

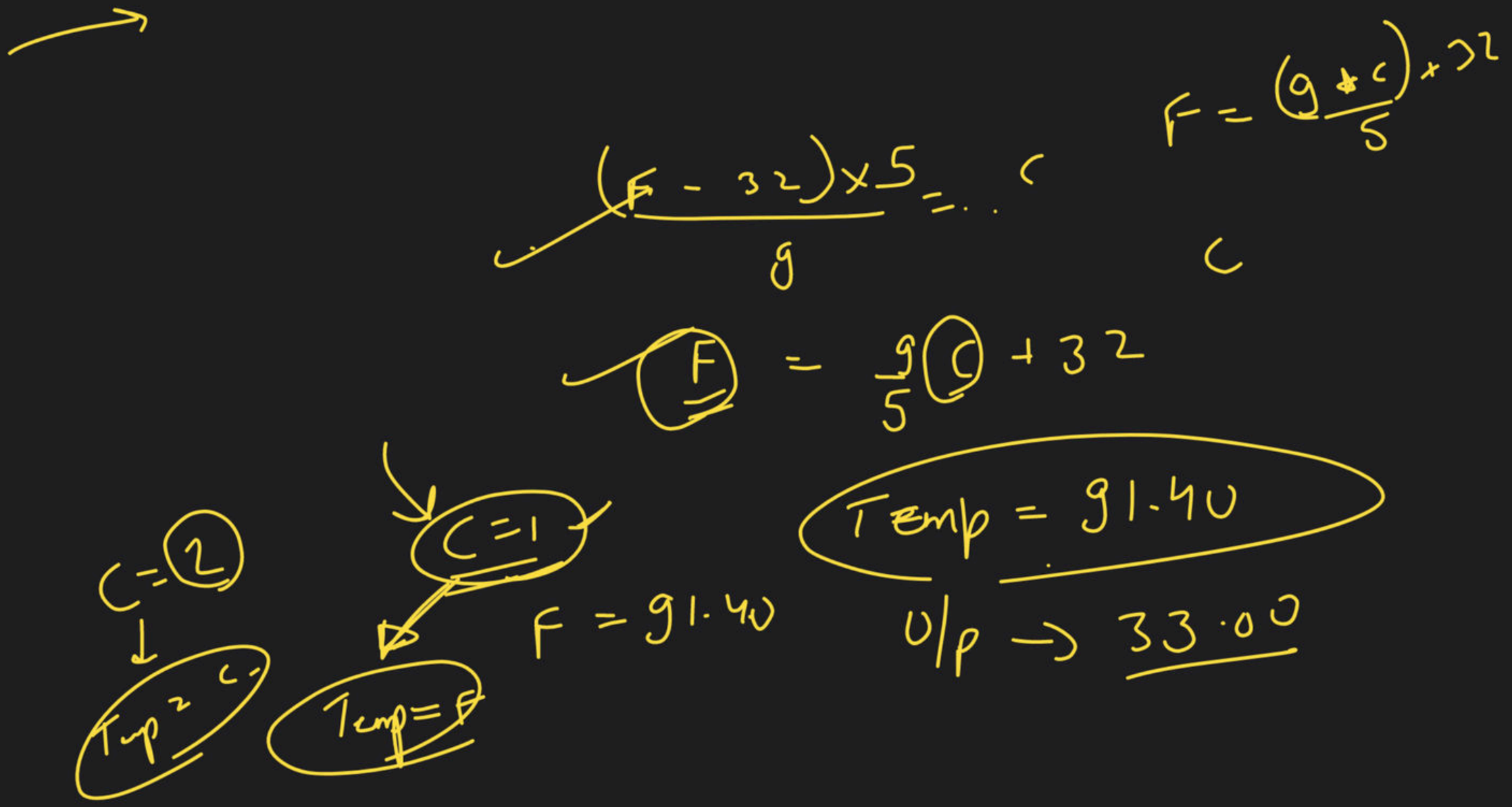
10


1 2 3 4 5
m=1 → 1 3 6 10 15
m=2 → 1 4 10 20 35
m=3 → 1 5 15 35 70
O(mn) → solve
m
O(n)
Backlog
1, 2, 3 → n x (n+1)/2
3x(3+1)/2 = 3x4/2 = 6
prefin(i) = prefin(i) * (m+i+1)/i
val[i] + prefin[i-1] x m x (m+1)/2
2 + 1 x 3 x 4/2 = 8

1 2+1 3 2+1

1 2 1+1 3 2+1+1

1 2 1+1+1 3


(F - 32) x 5 / 9 = C
F = (9 * C / 5) + 32
C
F = 9/5 C + 32
C = 1
C = 2
Temp = C
Temp = F
F = 91.40
Temp = 91.40
O/p -> 33.00

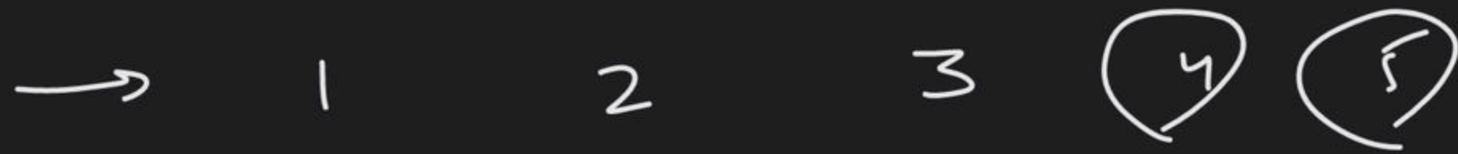
(Rearrange)

n = 5

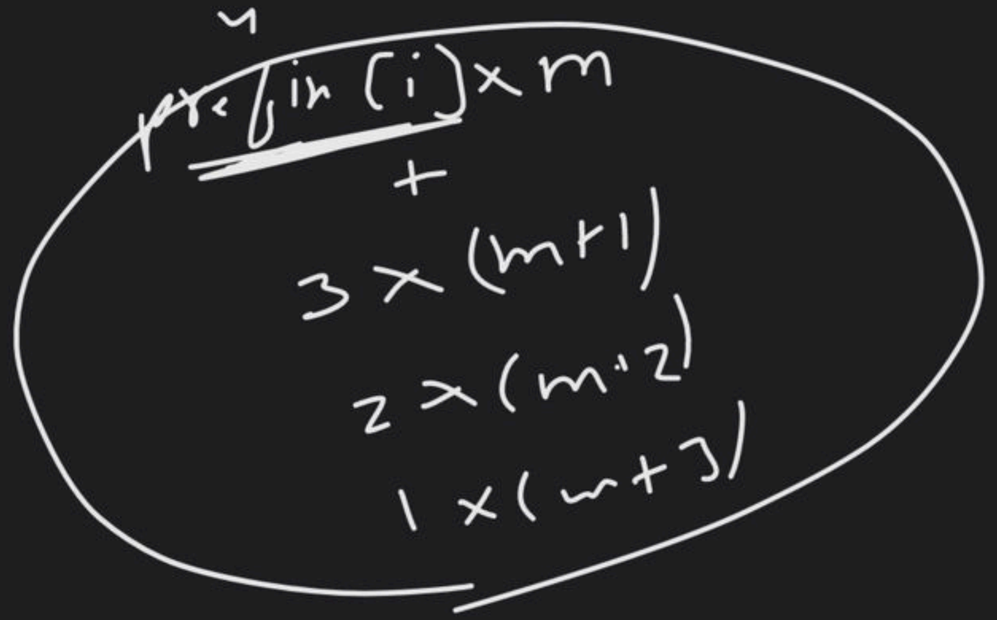
10	20	30	40	50

c = 60

0 -> 3


1
2
3
4
5


5


4
for(int i)xm
+
3x(m+1)
2x(m+2)
1x(m+3)

→ IP - Address

IPv4 — IPv6 → already in H/W

→ StartUp -> ?

Airport

n = 4

14.4 LPA -> Yudlee

/LPA

1 0 1
1 1 1
1 1 0
0 1 0
0 1 1

0 0
0 0 0

7

Binary Manipulation

↳ HackerEarth

no. of trailing zeroes in factorial

5 x 4, 5 x 6, 5 x 8

→ Atlassian

Greedy algo

relvad

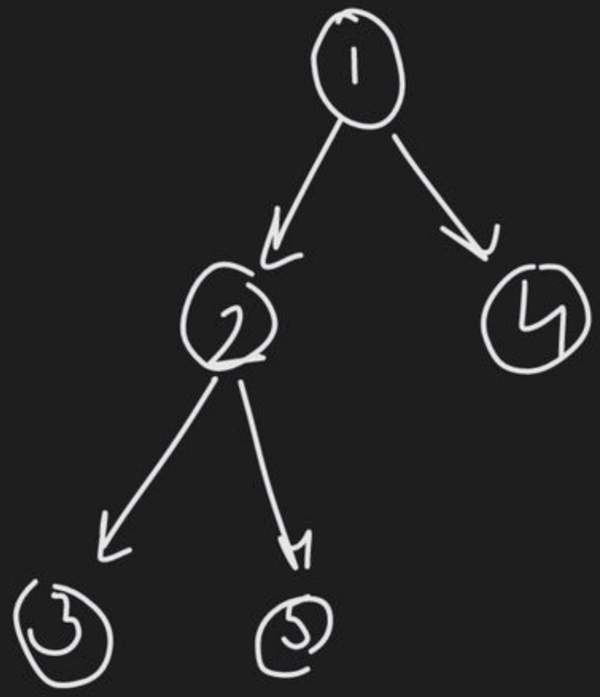
(1) → string → partition groups → LC

s = "abacbcbacadcfegdehijkhij"

o/p → [9 | 7 | 8]

(2) Query → Exact Equation

② n = 5 K = 2 → no of operation



1 level Remains

op → 1, 2, 4

diameter

Recursion ?

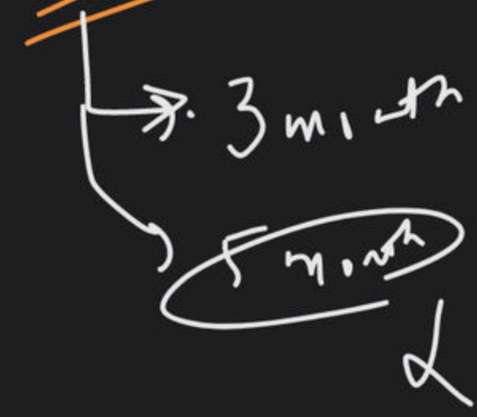
③ Complete getAnagram(str, n)

return lg

s = "abc bca cba"

o/p -> 5

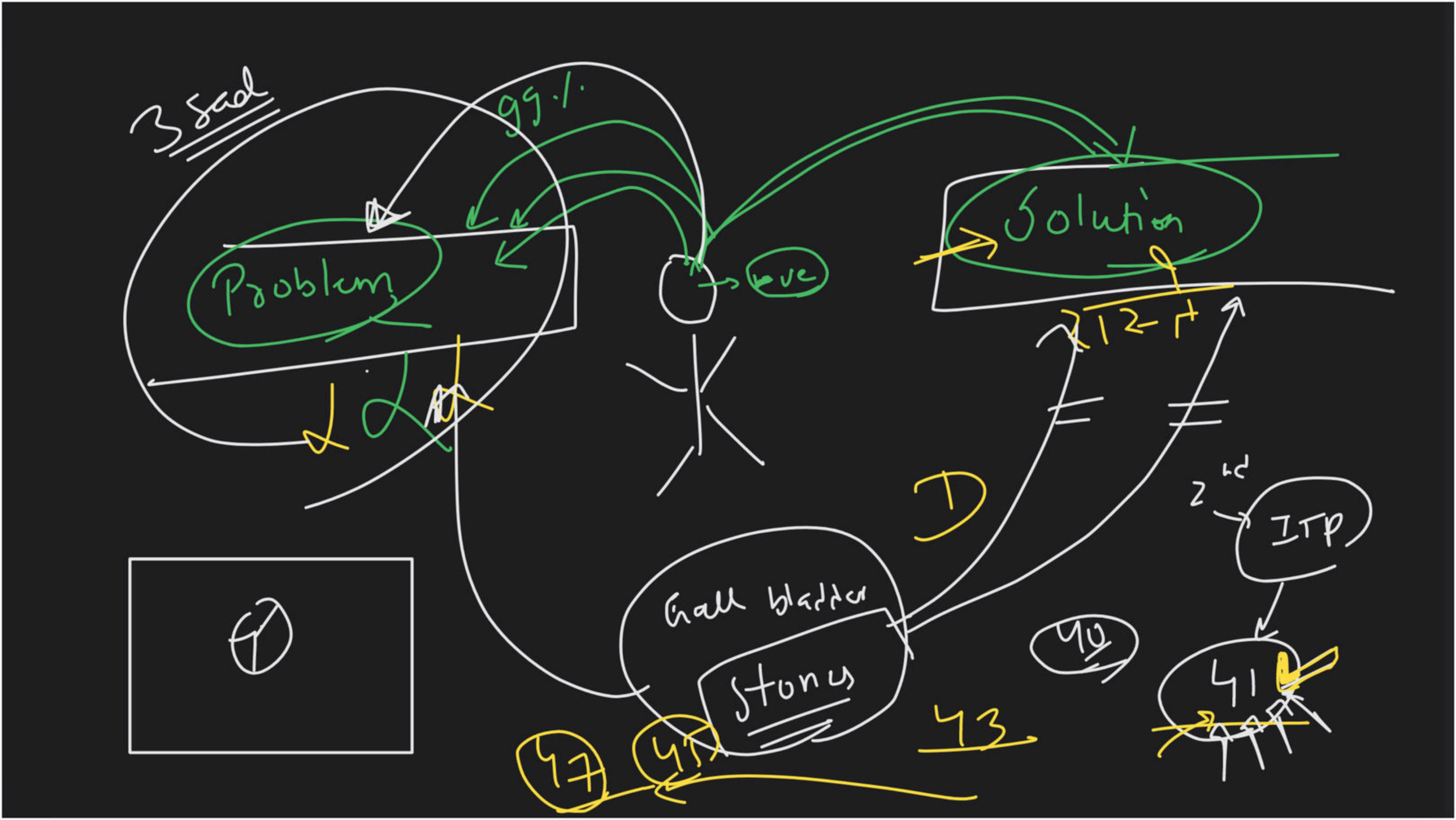
DSA

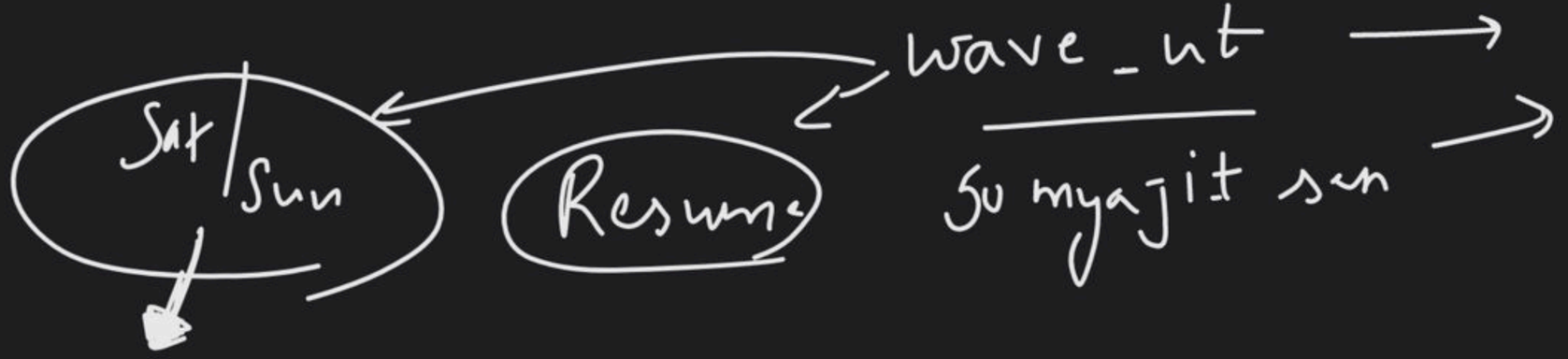


"a

O(n×m)

Linear O(n)


3 sad
gg.!
Problem
Solution
eye
Gall bladder
Stones
ITP
47
43
41



3 yrs