



Char Arrays & Strings - Class II [JOIN HERE]

Special class

$i/p \rightarrow$

~~a b a c a~~

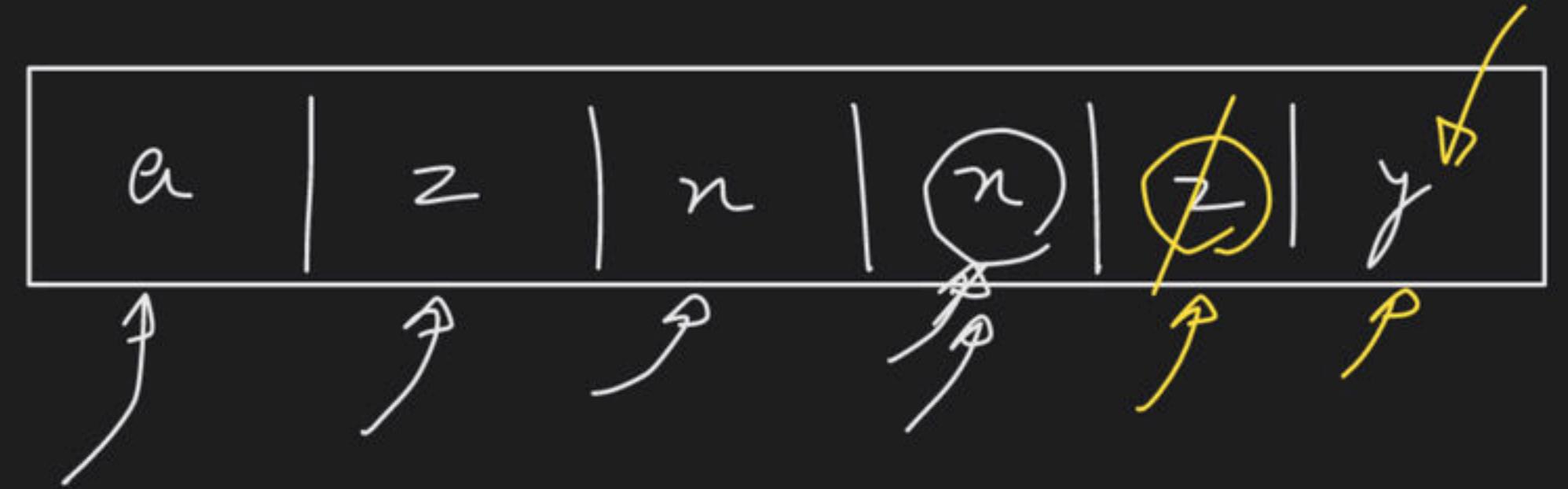
~~a z x n = y~~

~~a \neq z y~~

~~a/a c a~~

~~(a) answer~~

~~ay~~ \rightarrow ans



unb'd init

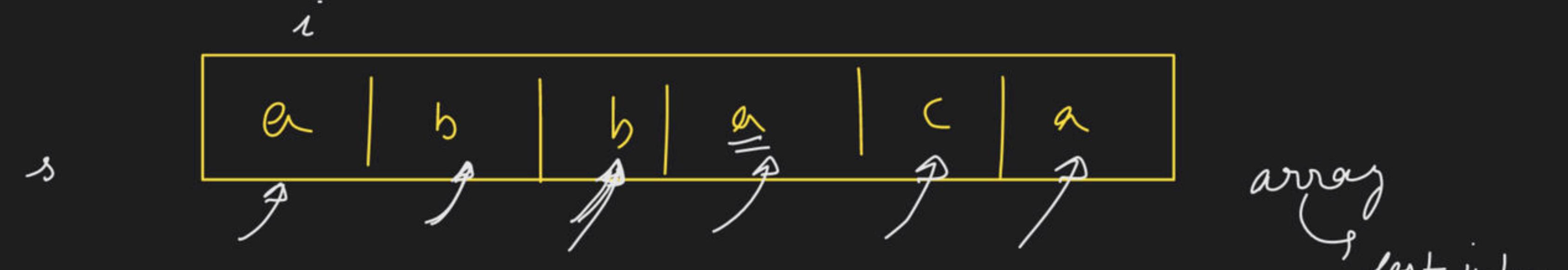


ans = " "

= "a"

= "az"

- "azX" → "az" - "a" = "ay" → ay

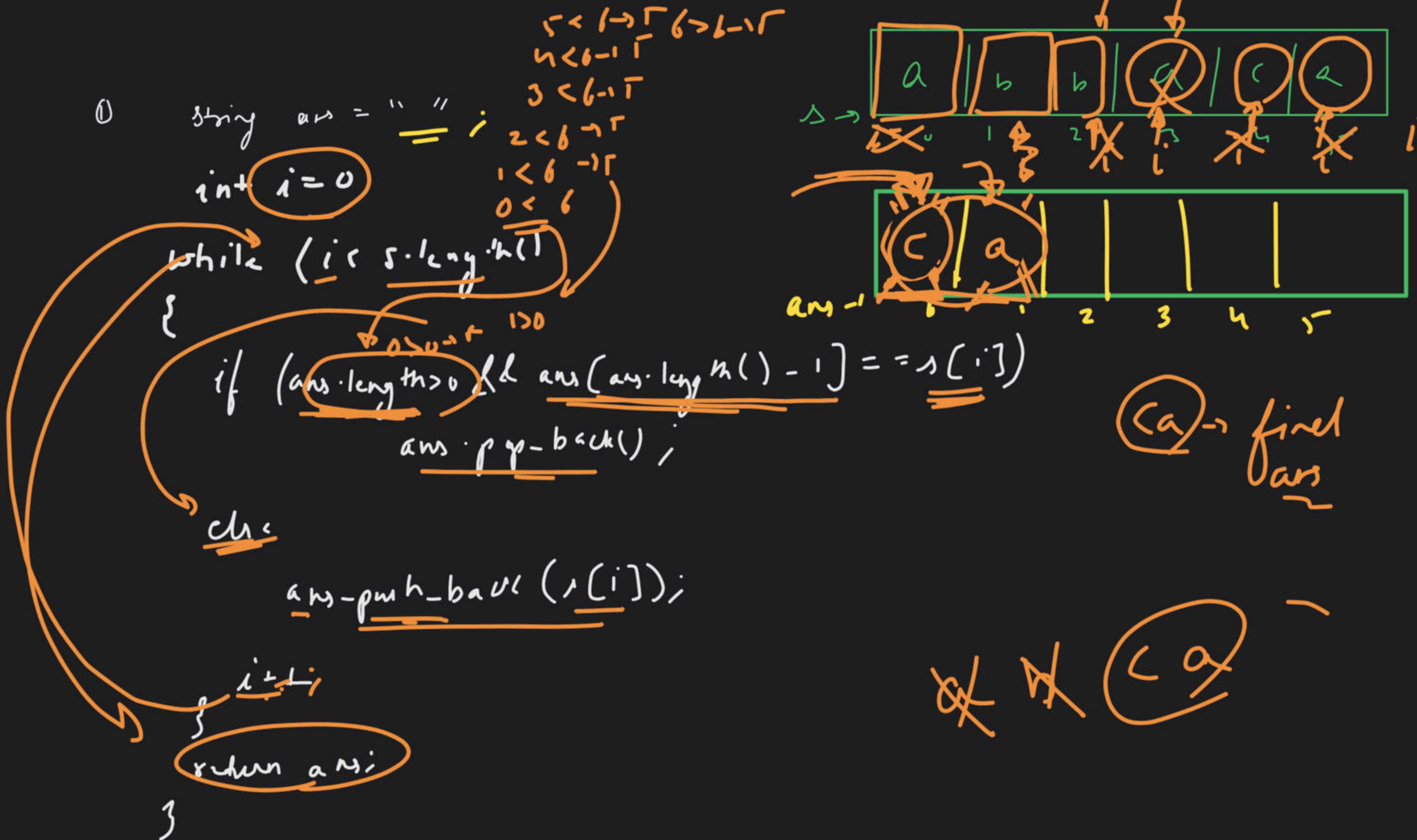


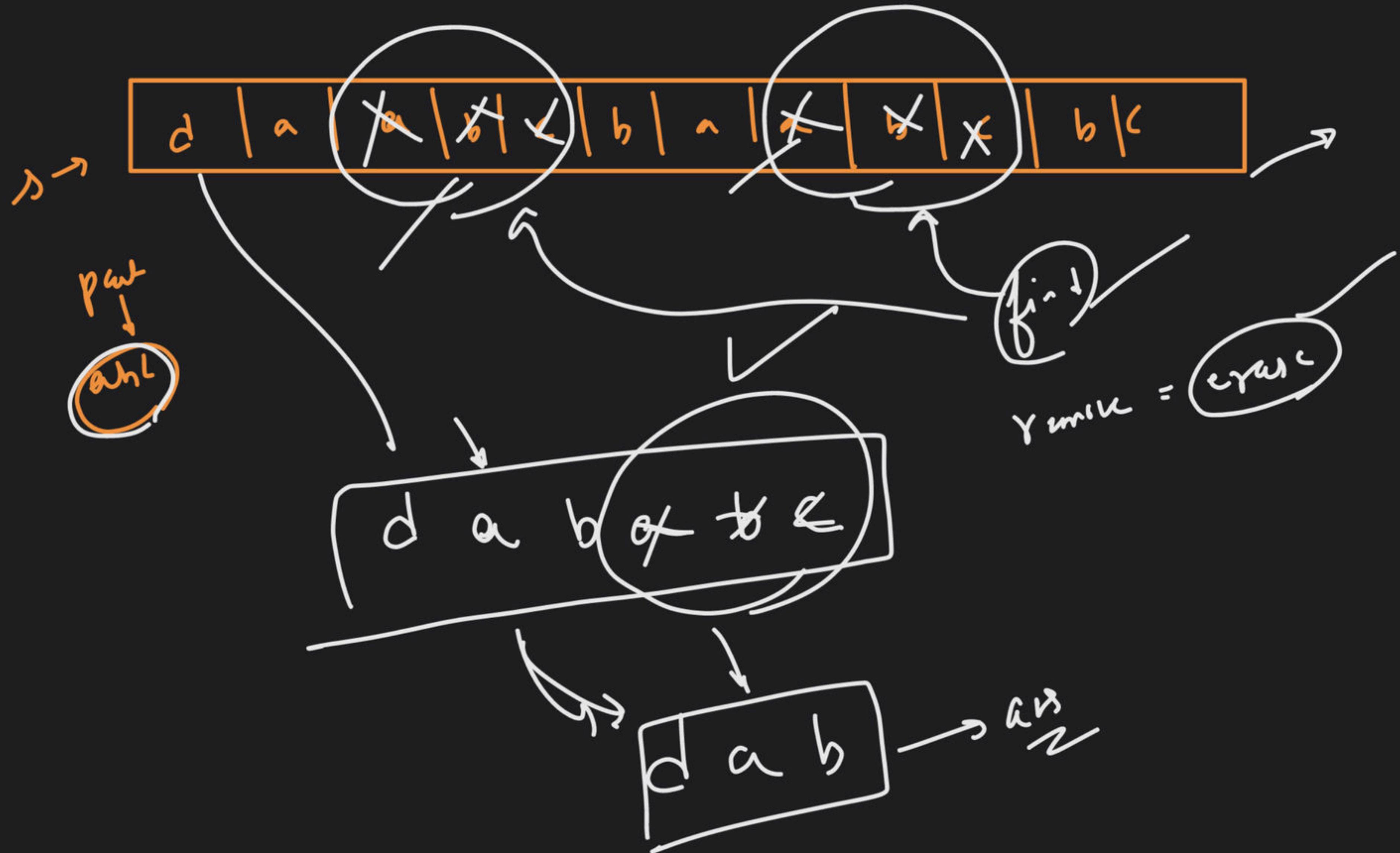
$\text{ans} = "$
 $= "a" = "a/b"$
 $= "P" = "C" = "(a"$

$n-1$
 $k = m + i - 1$

ans <= last character
 if $\text{ans}[\text{ans.length}() - 1] == s[i]$
 then
 pop-back
 else
 push-back

string < current character
 storing for last





hp DS

$g \rightarrow \text{part}$

nu

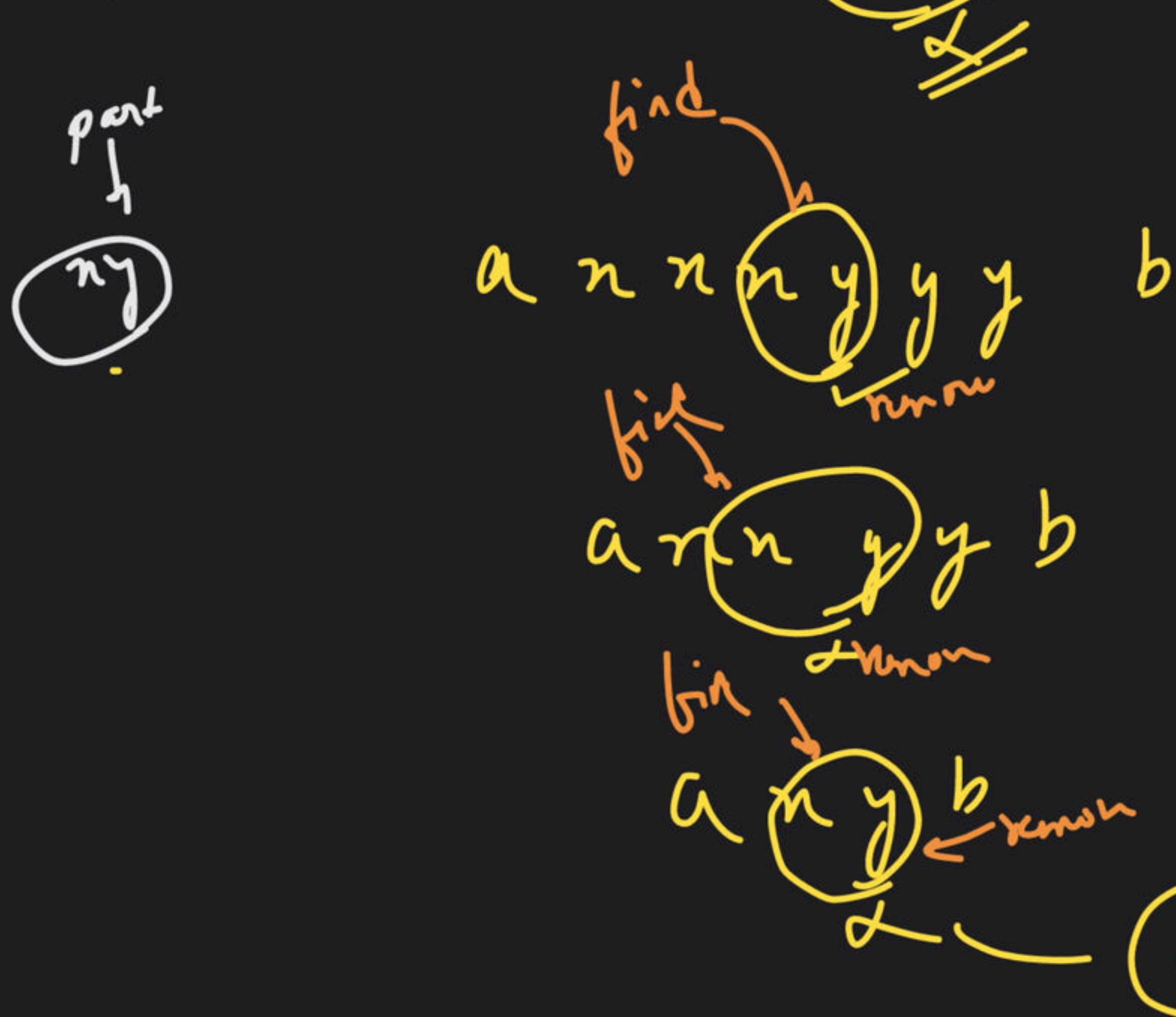
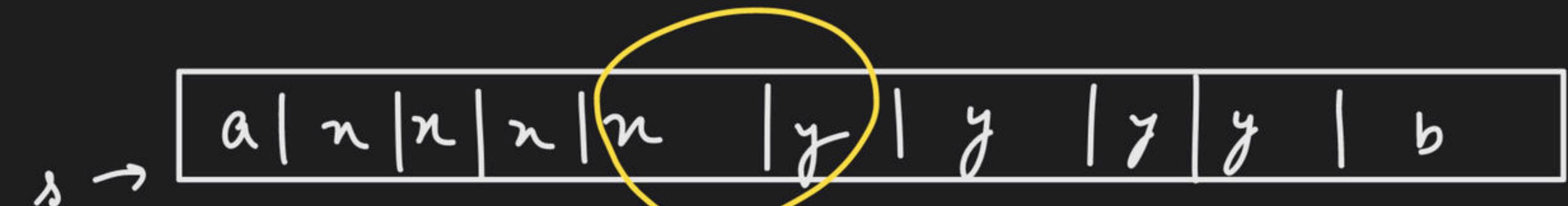
position

plan (state)

NuLi

exit

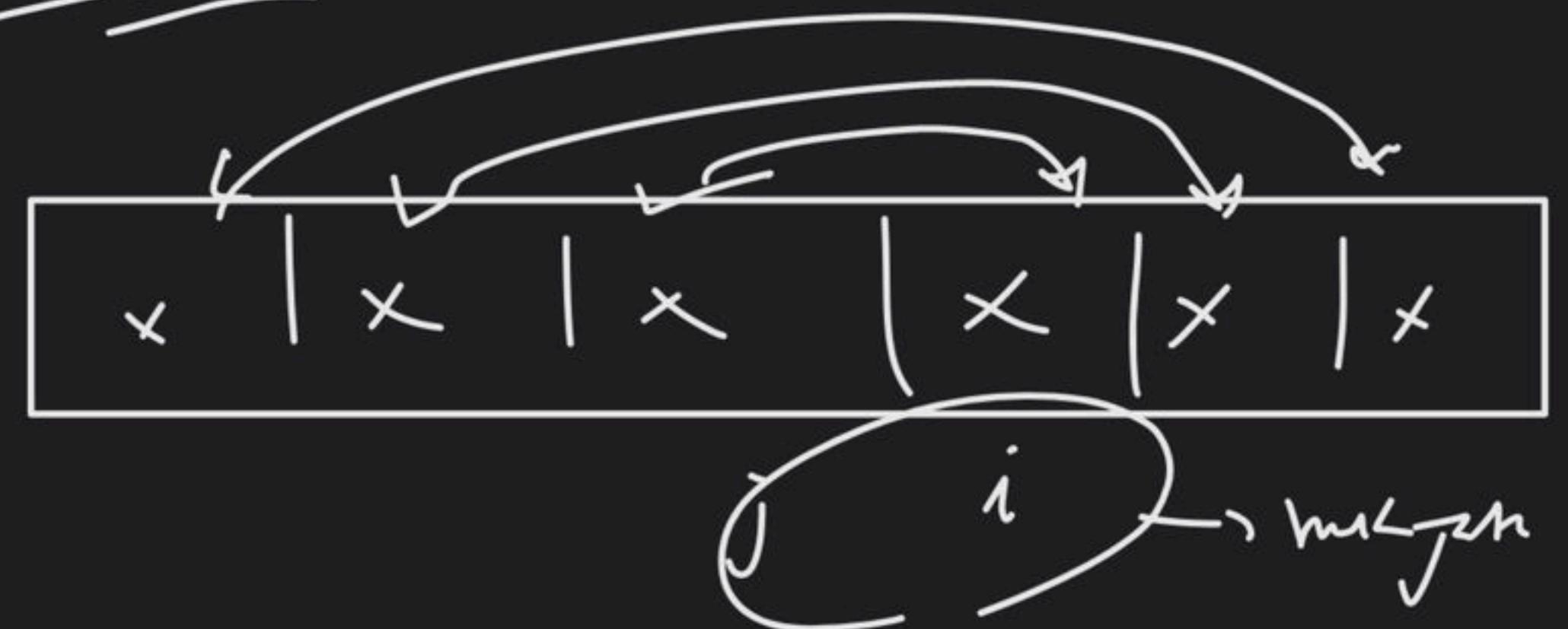
nah
Kontak



→ mil
gym

ab → final ans

Palindrome check





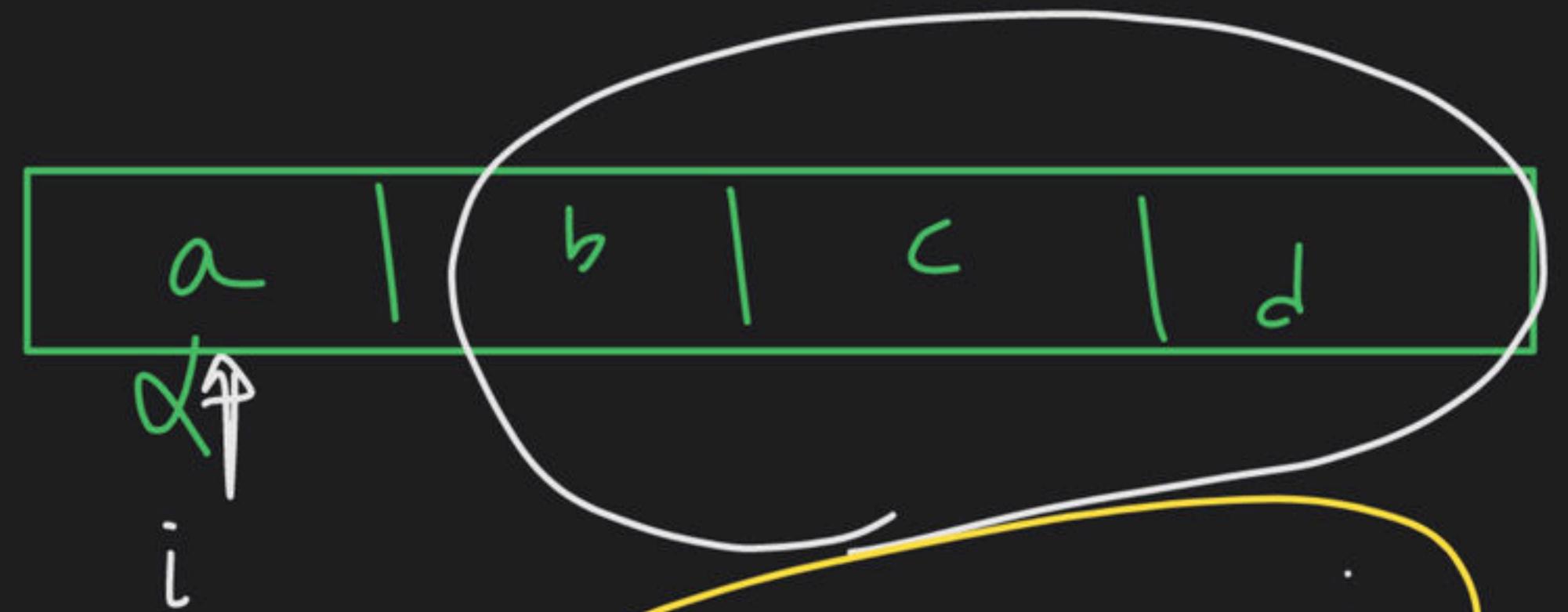
$\delta[i] == \delta[j]$

no need to run
 $i++$ $j--$

$\delta[i] != \delta[j]$

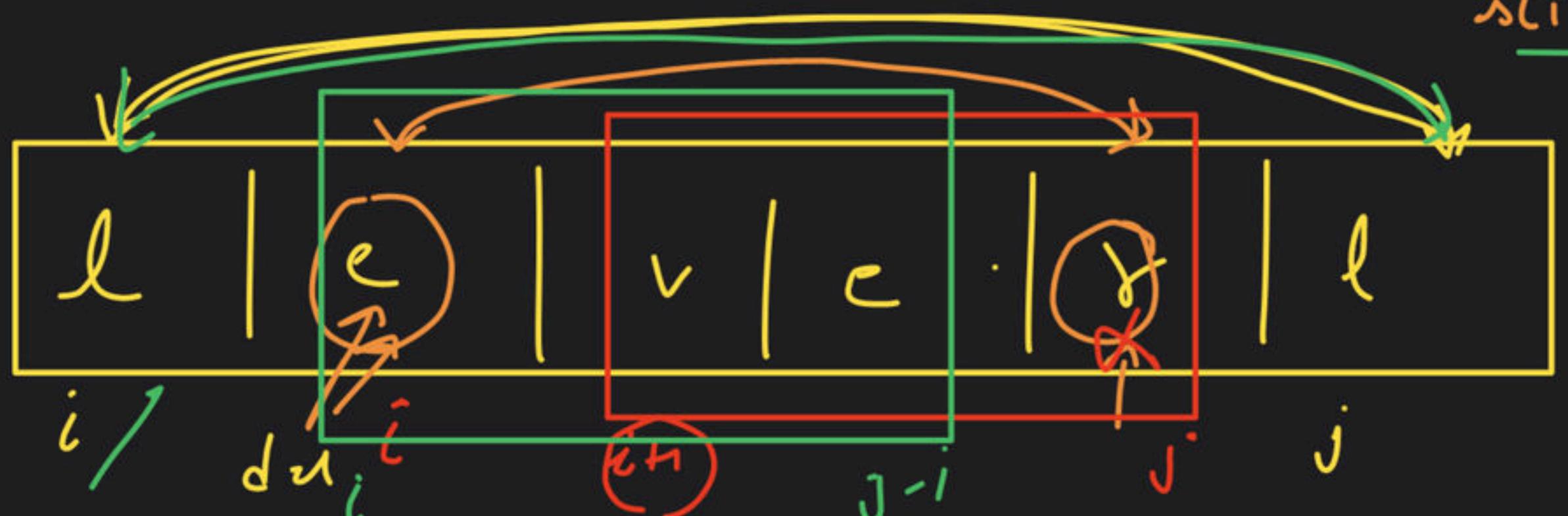
ya to i wala karw

ya to j wala karw



$s[i] = s[j]$

case 1
case 2



Case 1

$$s[i] = s[j]$$

no removal needed

on $i \neq j$

array blocks

$i+1$

$j-1$

$e \rightarrow i \rightarrow j \rightarrow l$ (left)

$y \rightarrow i \rightarrow j \rightarrow l$



remove

$\downarrow \rightarrow$ removal

$\geq 1 \rightarrow$ removal \rightarrow @fff

① already palindrome

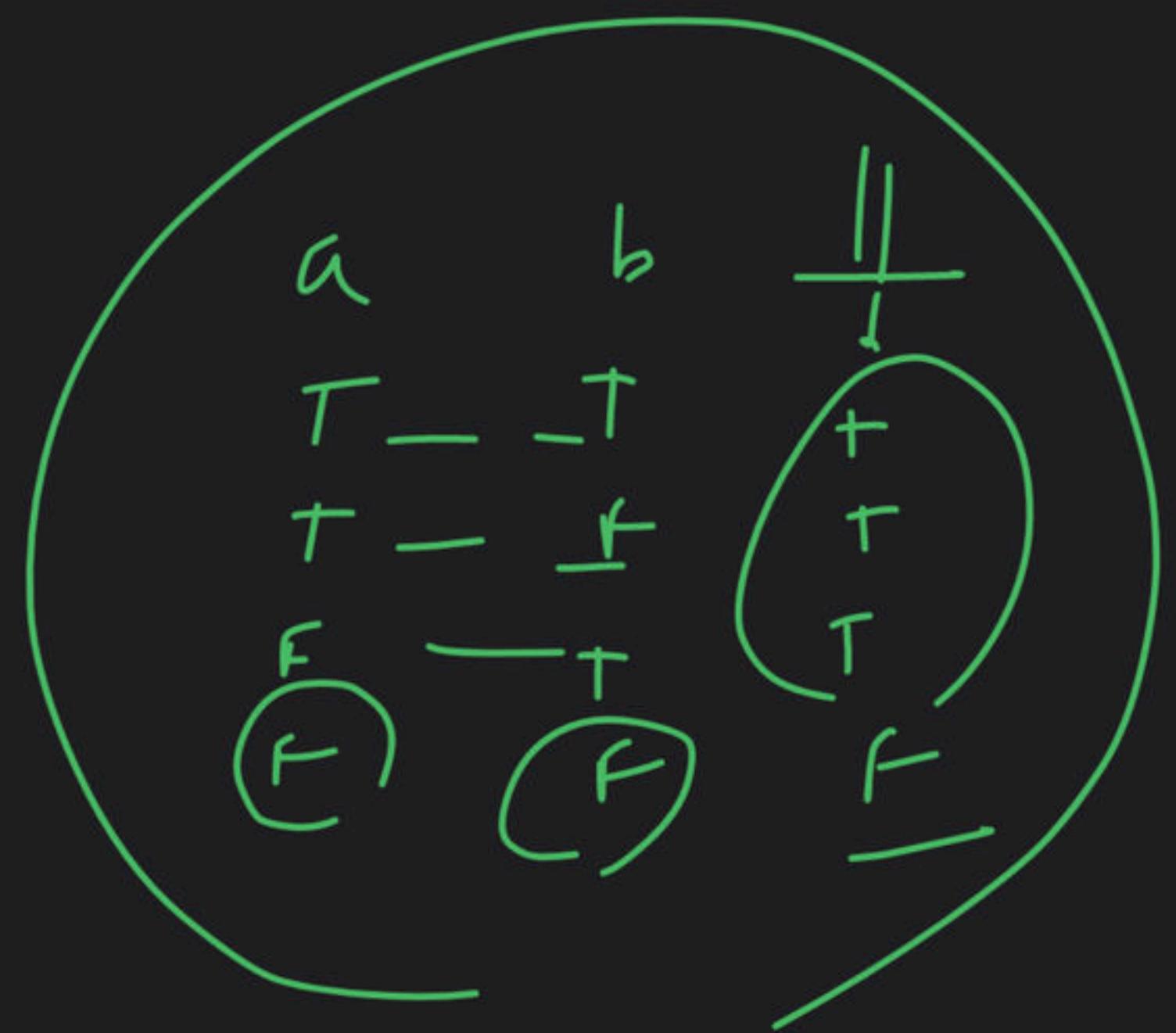
true

② after removal

true

③ > 1 removal

false



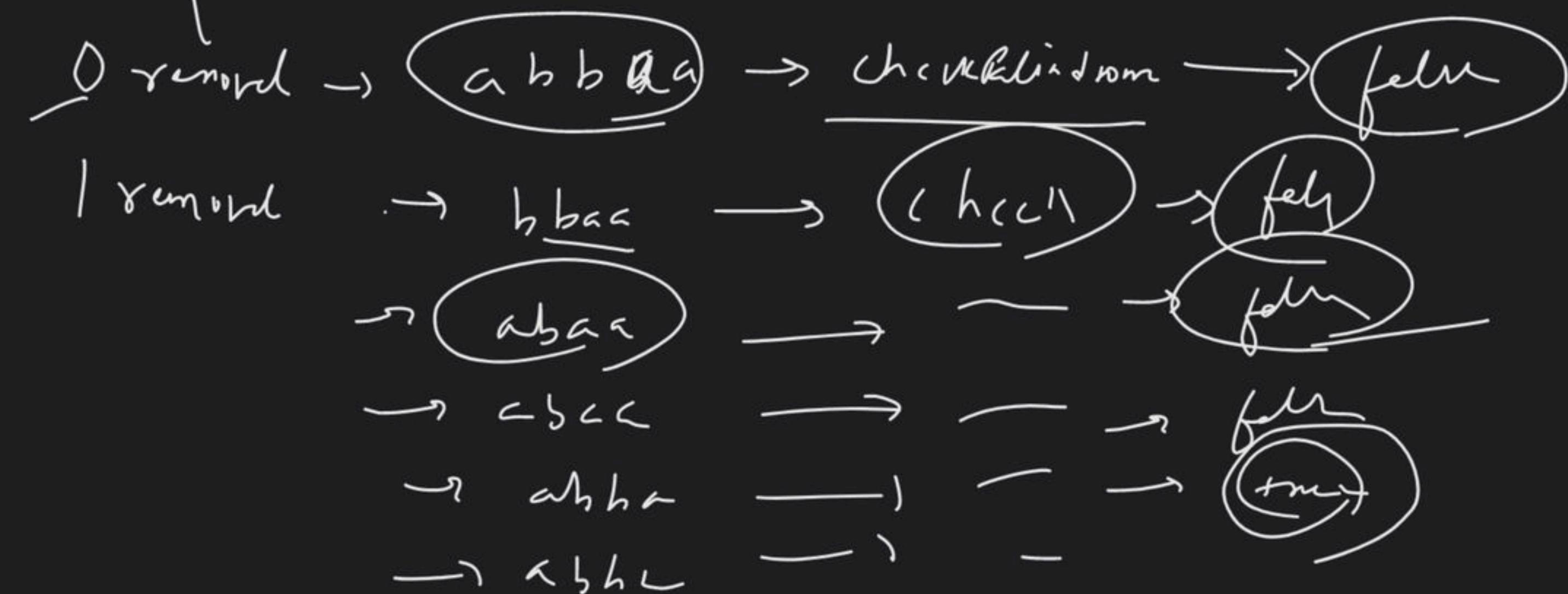
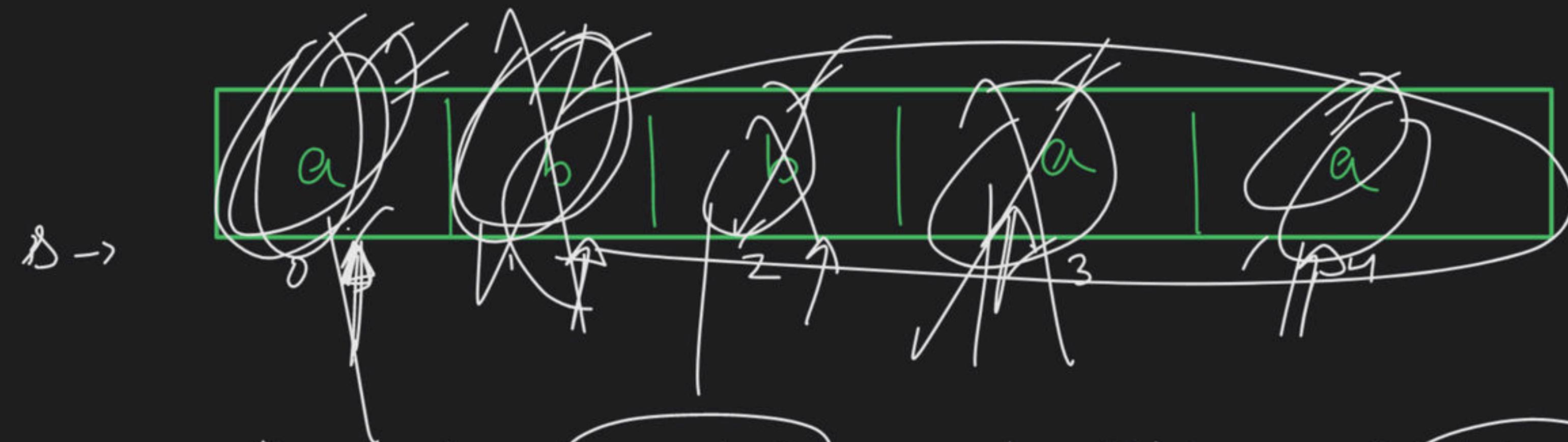
line 19

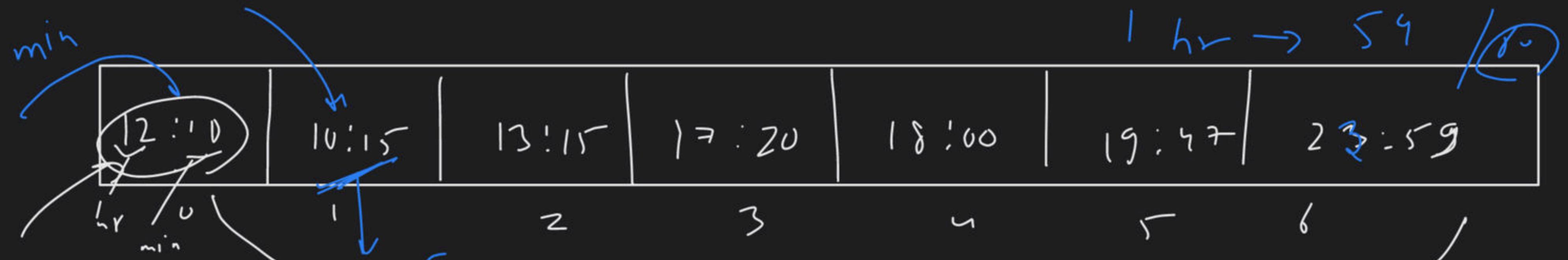
return checkPalindrome ($\lambda, i+1, j$)

checkPalindrome ($\lambda, i, j-1$)

b
while loop

2 min
Brute





$$\begin{aligned} & 10 \times 60 + 15 \\ & = 615 \text{ min} \\ & : 60 \\ & = 10 \text{ hr } 15 \text{ min} \end{aligned}$$

minimum difference?

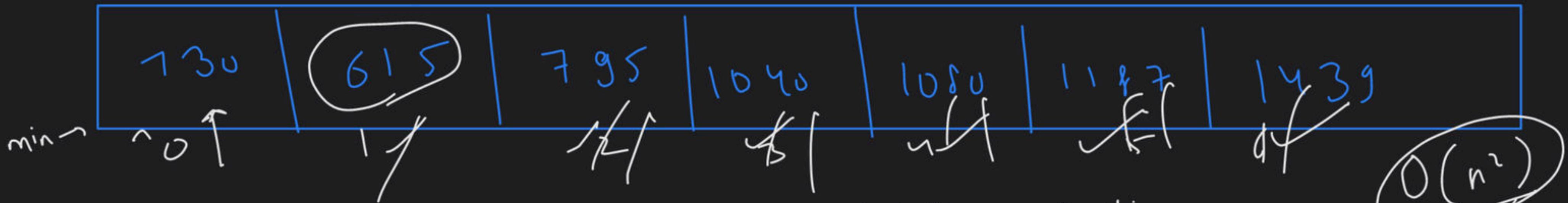
12:10 11:15
55

12:10 → 13:10
1 hr → 60 min

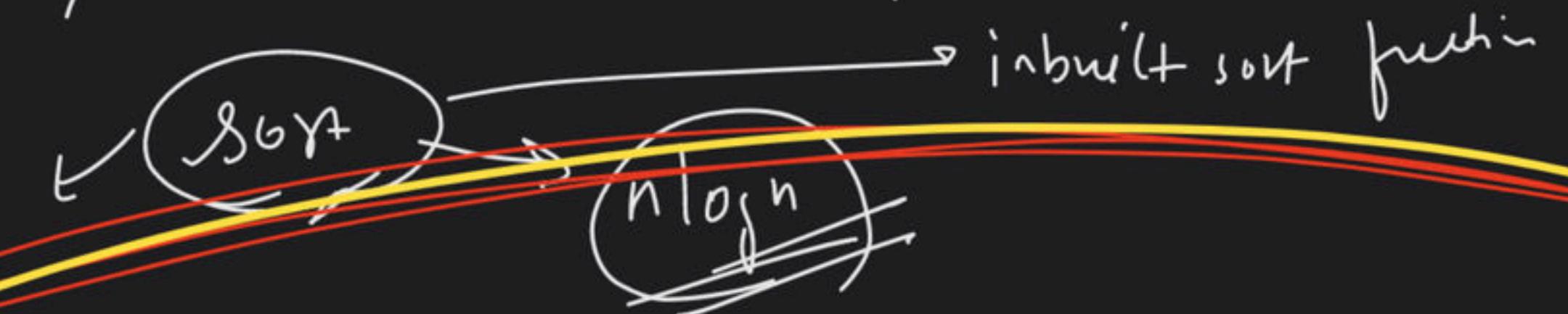
1 hr → 60 min

12:10 12:31
25 min

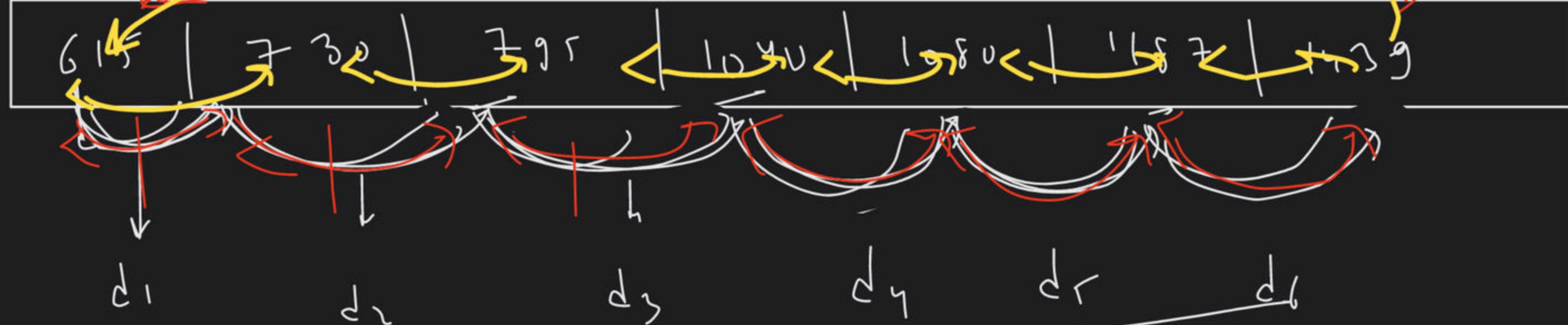
(A) convert time String int minute integer value



(B)



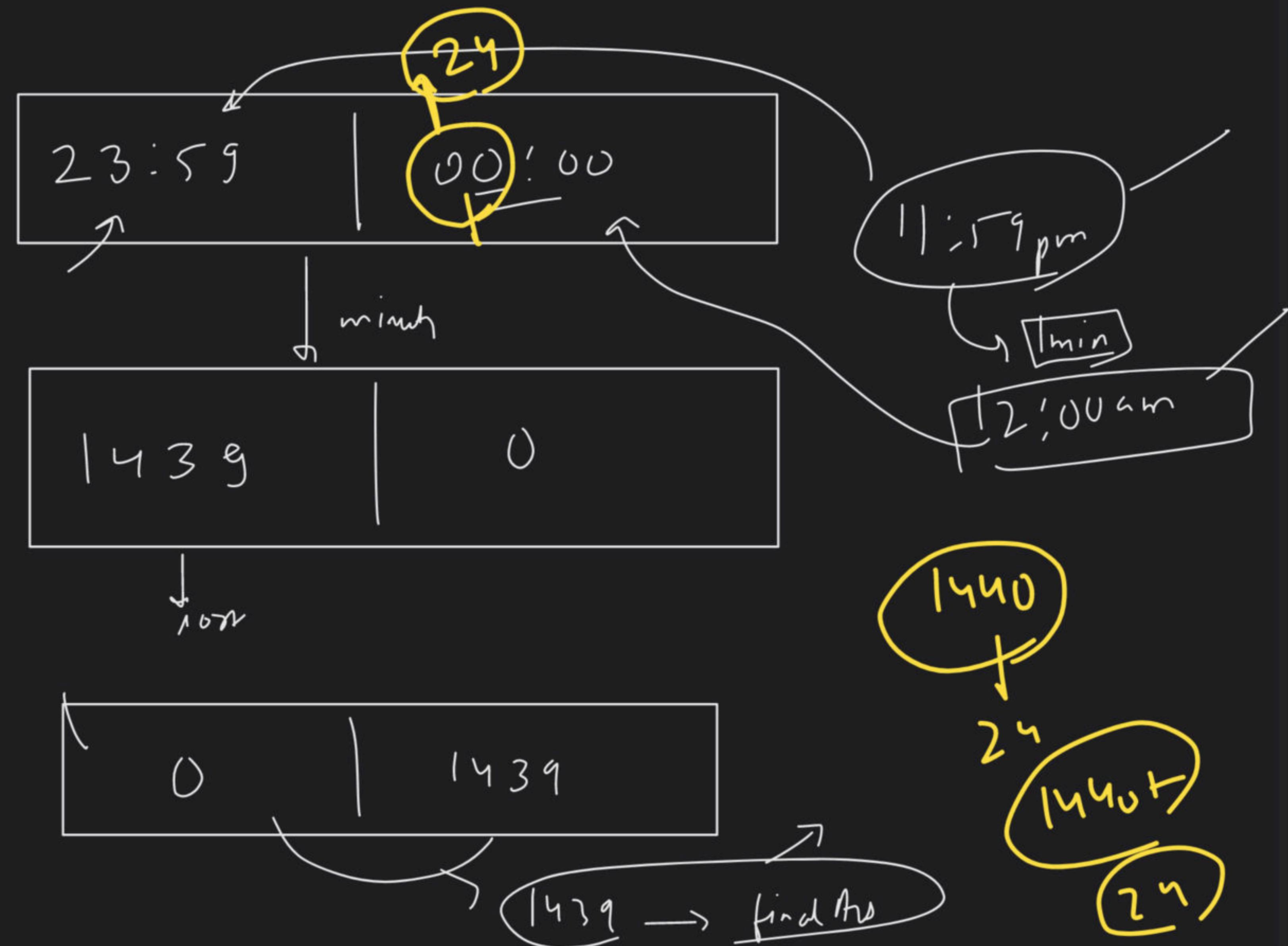
(C)

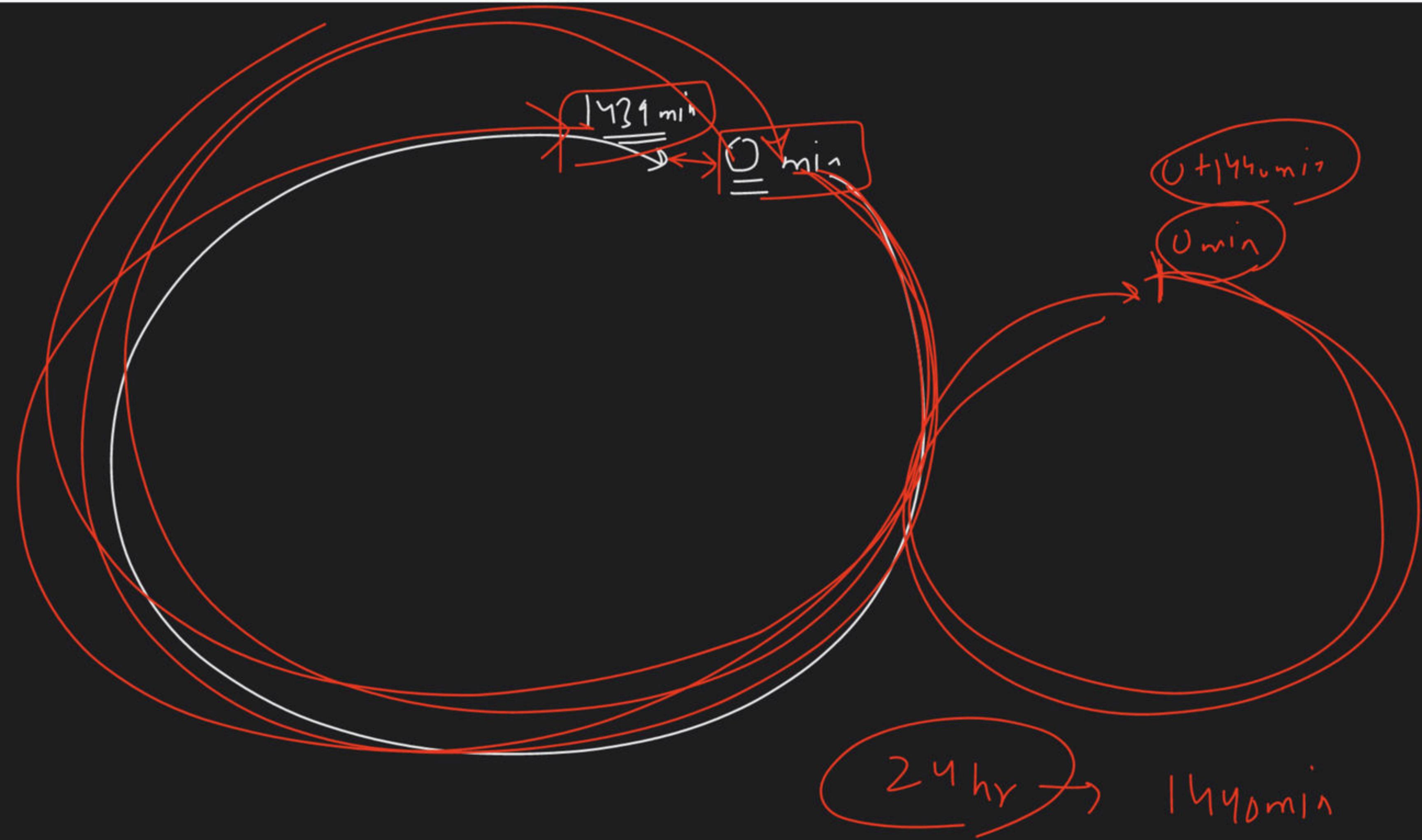


(y)

min

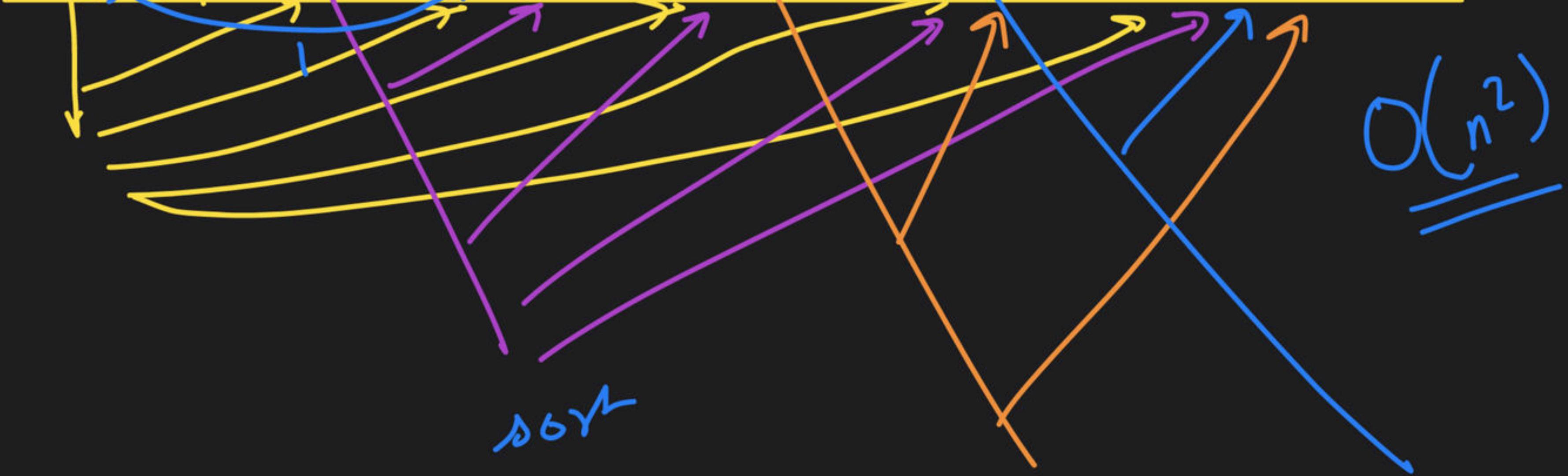
min diff

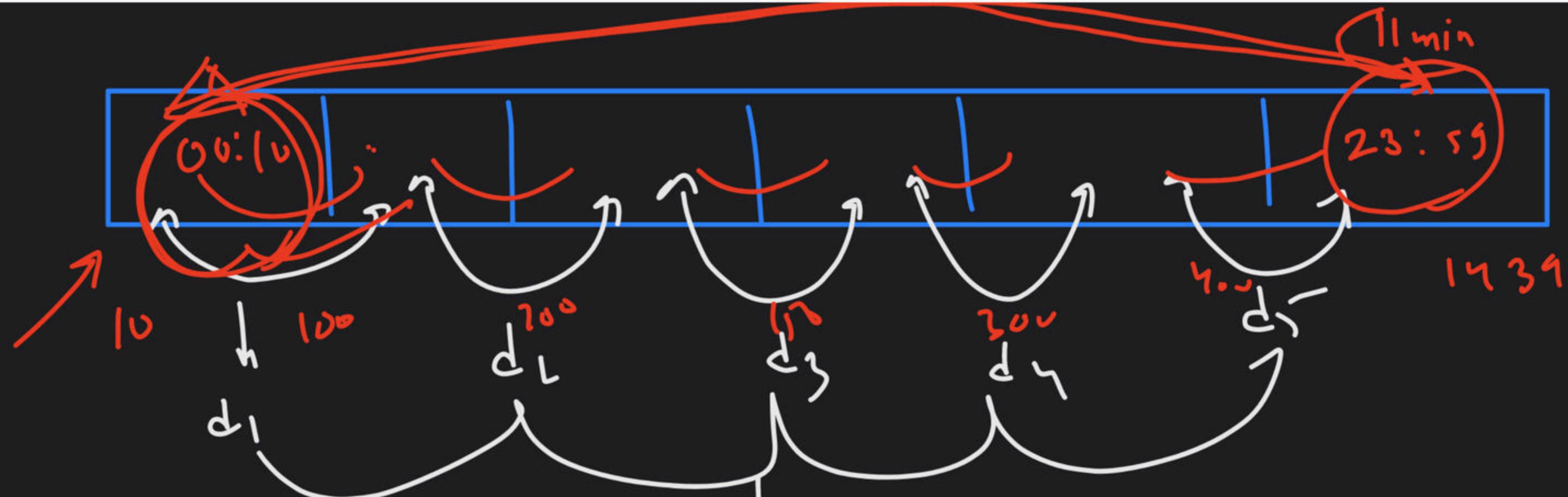






convert into minutes





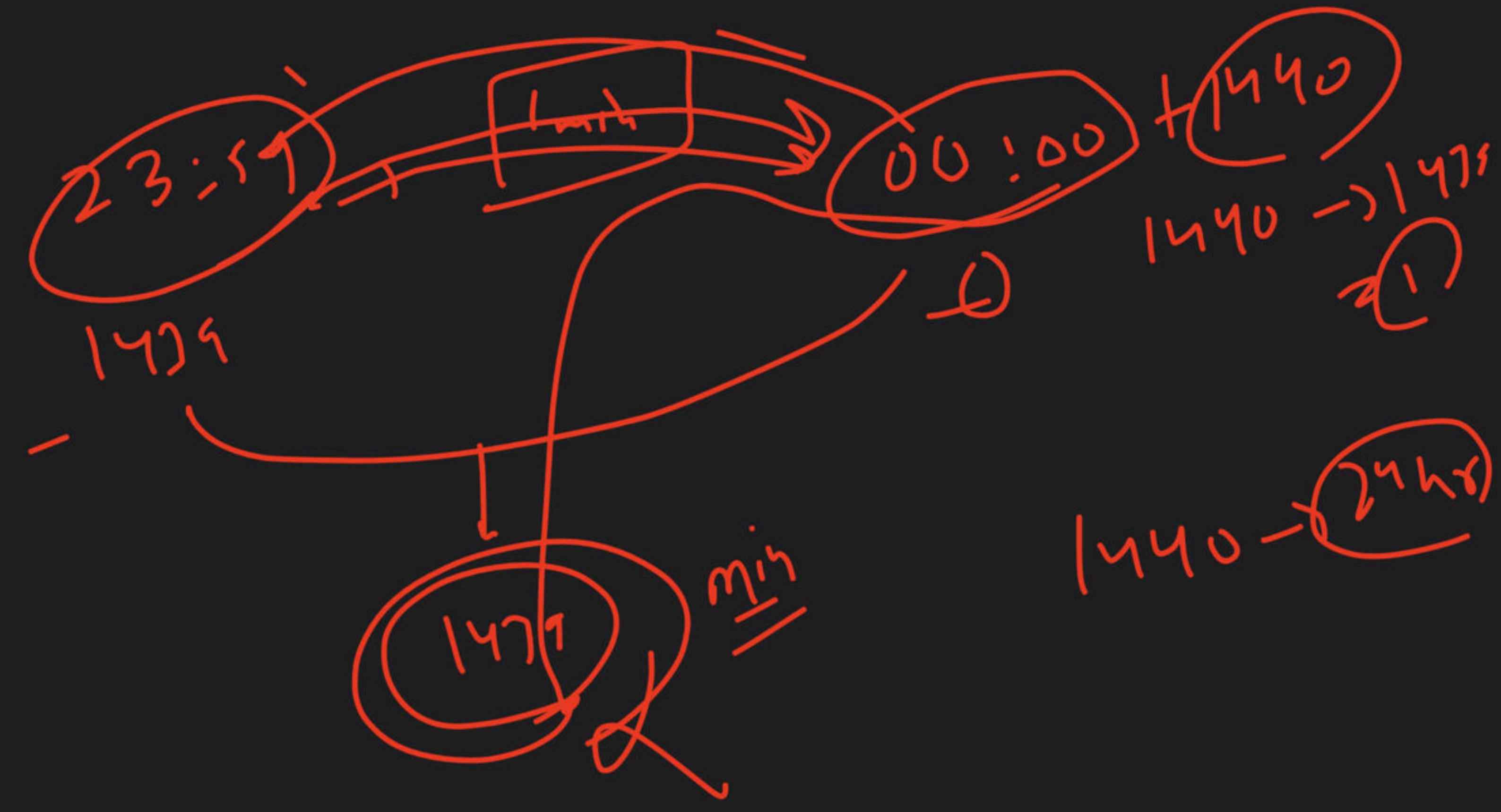
$y - r \tan \theta$ RUN

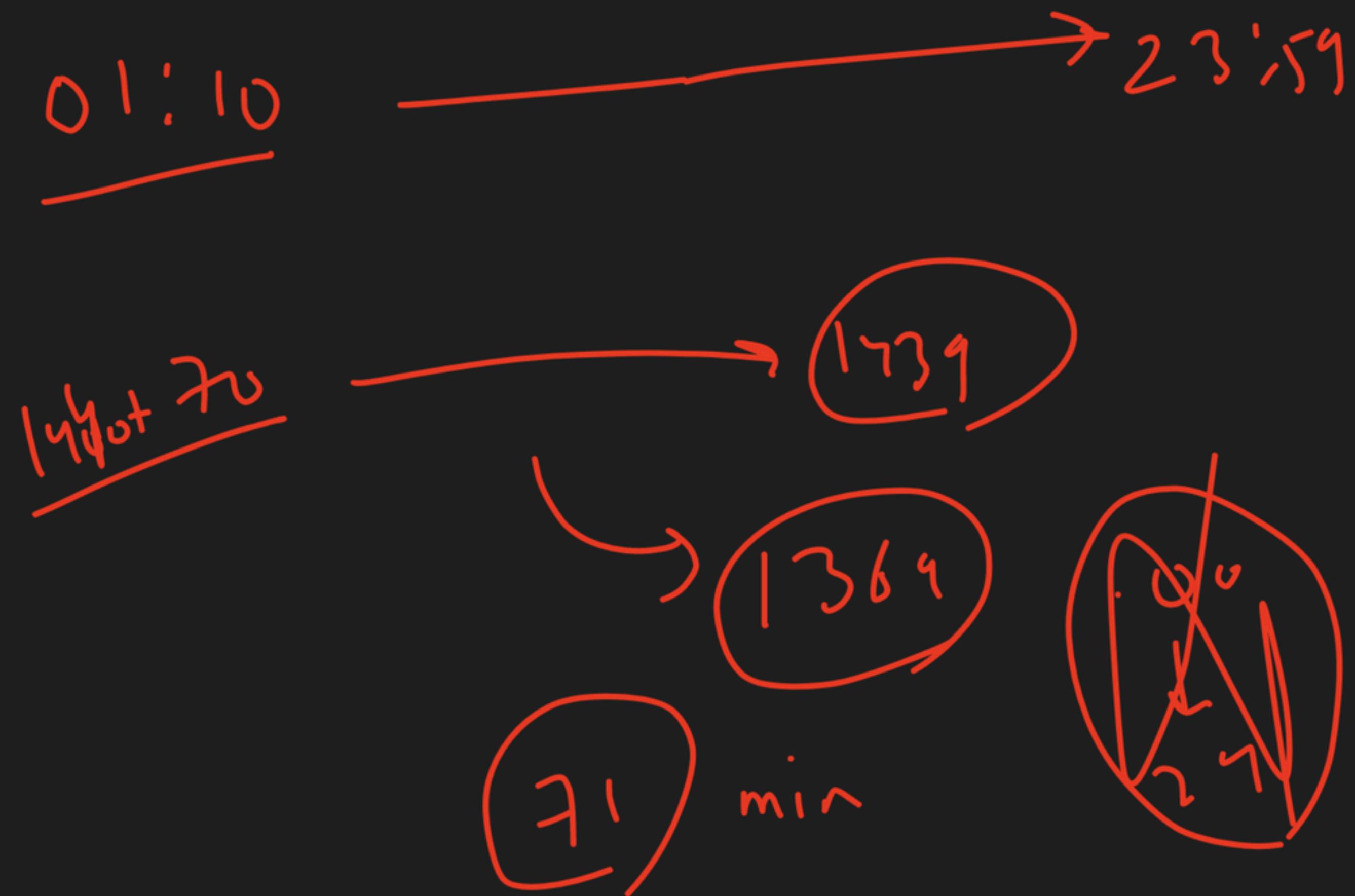
mini

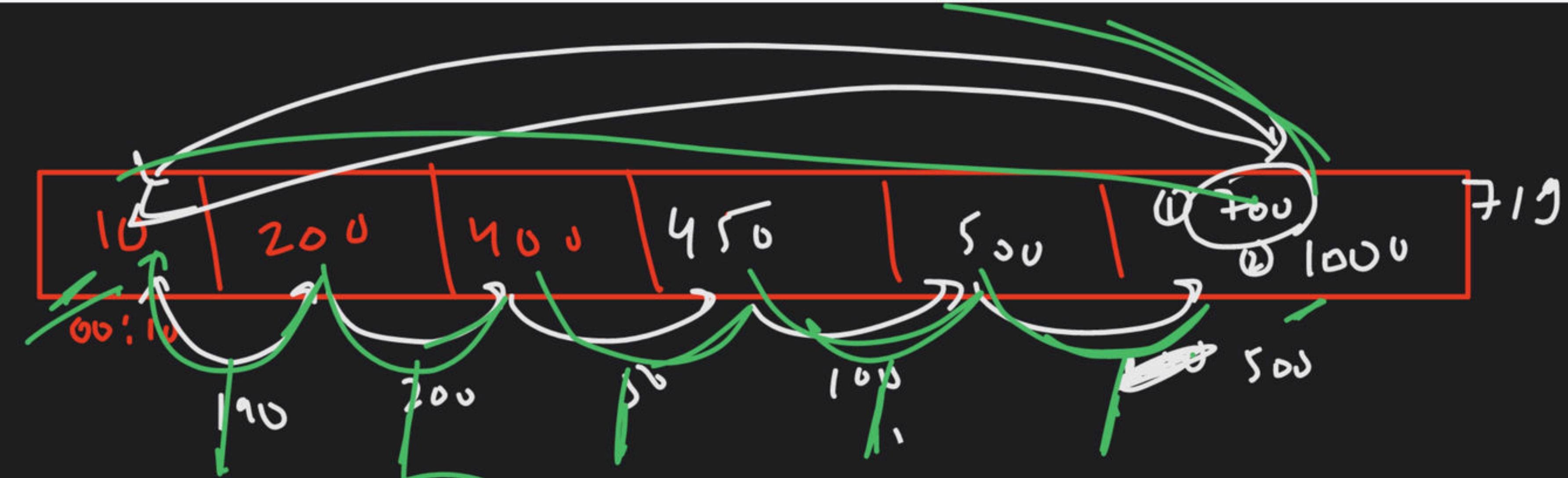
$1439 - 10$

$$\text{diff} = [(0) + 1440] - [1 \text{ art}]$$

$= 1429$







fint
last+

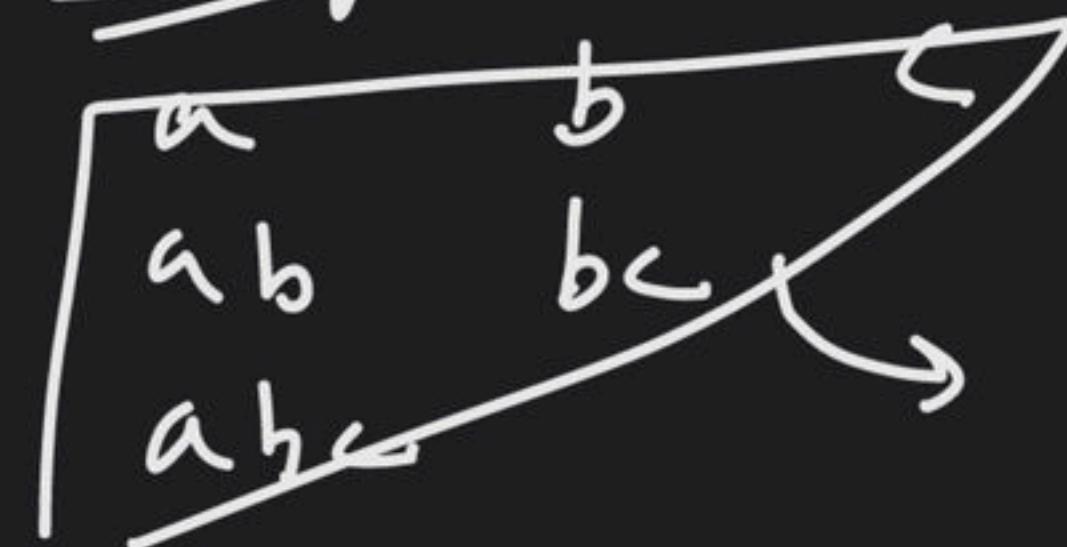
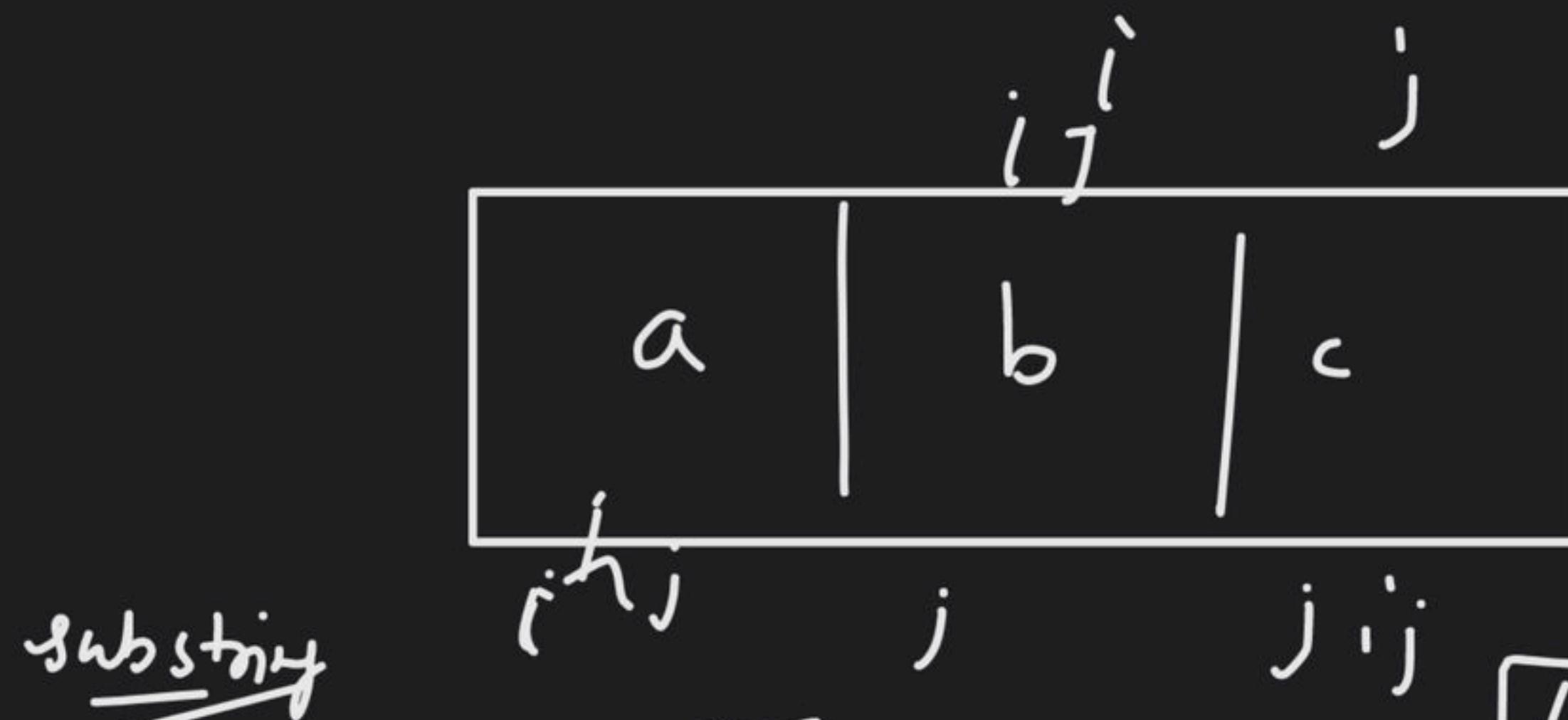
$$719 - 10 = 709$$

$$1041440 - 719 = 231$$

min diff



Number of Palindromic Substrings

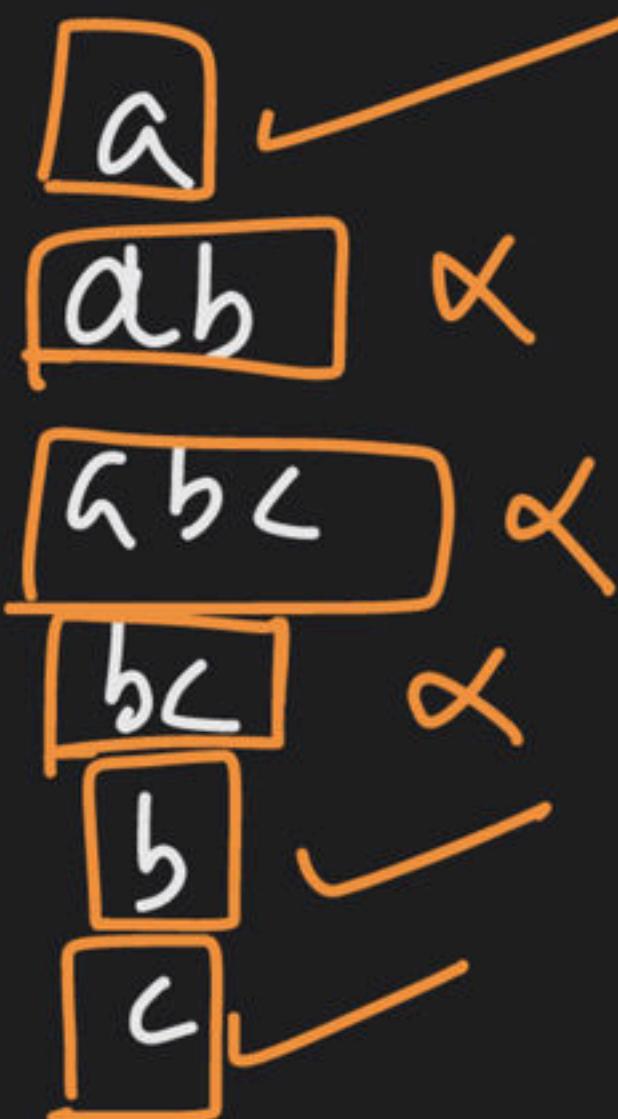


Time complexity:

```
for (i = 0 → n)
  {
    for (j = i → n)
      {
        cout << s
      }
  }
}
```



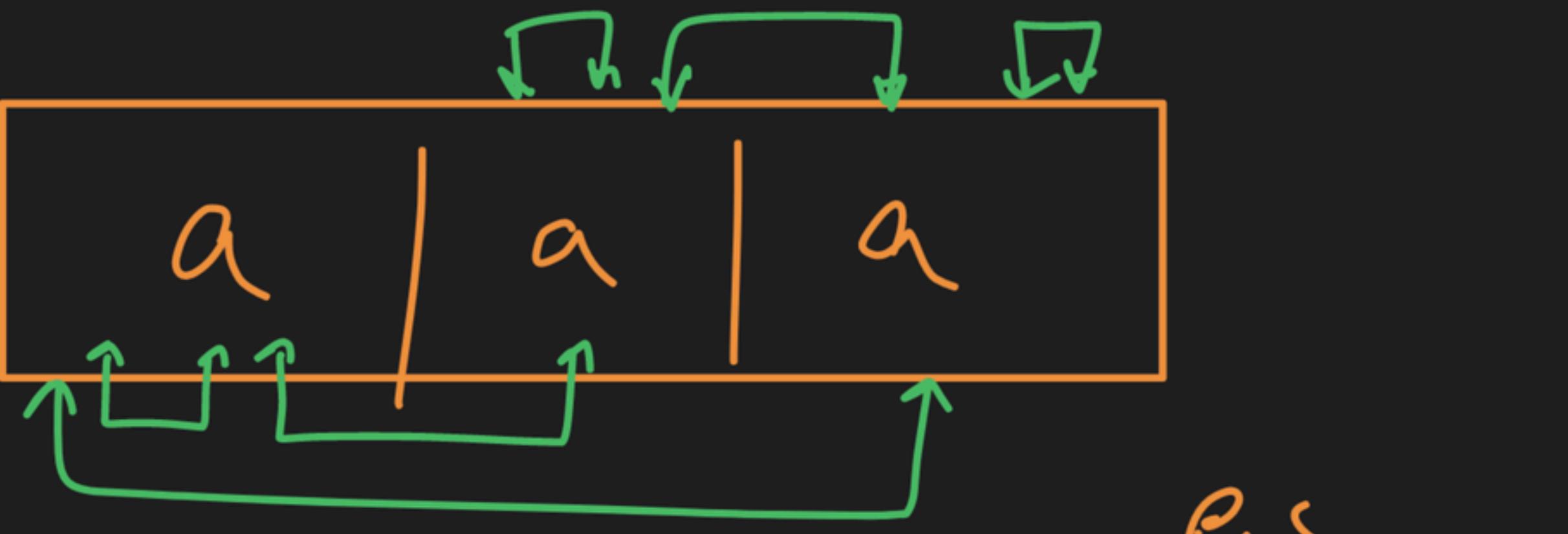
substring



a c

Palindromic Substring





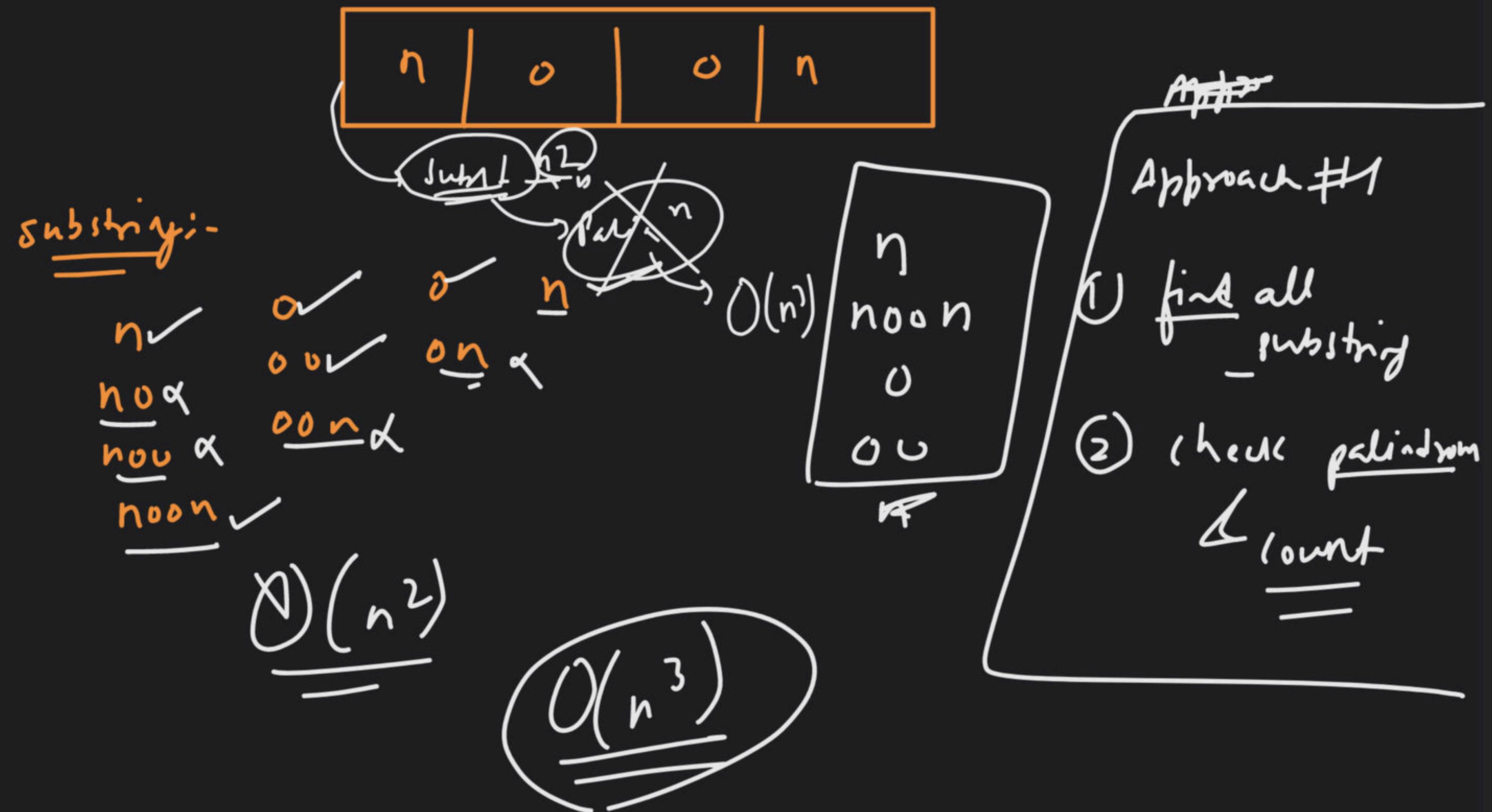
Substring

a
 aa
 aaa
 a
 aa
 a

a → aa
 aa → aaa
 aa → a

P.S

a, aa, aaa



n-

D



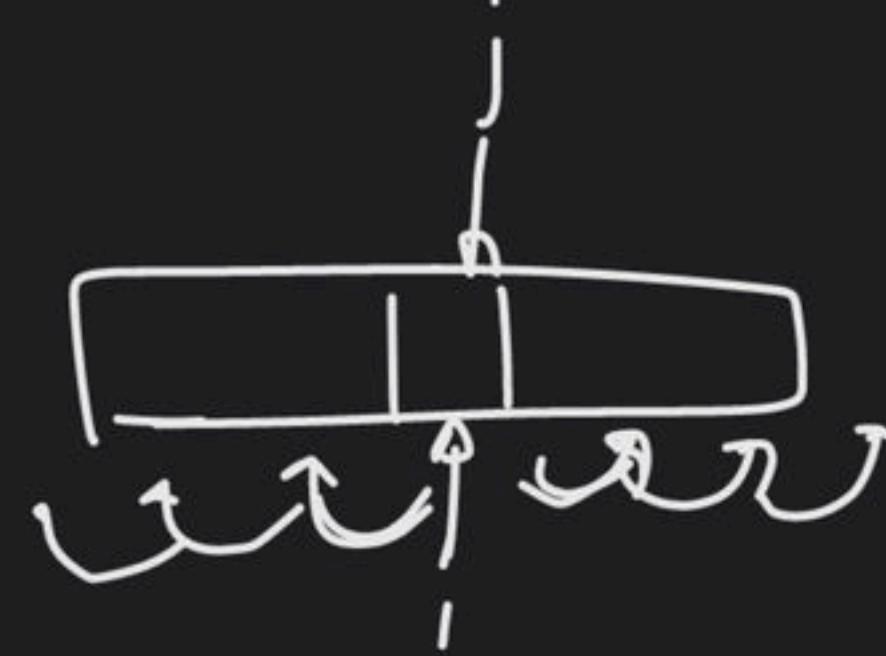
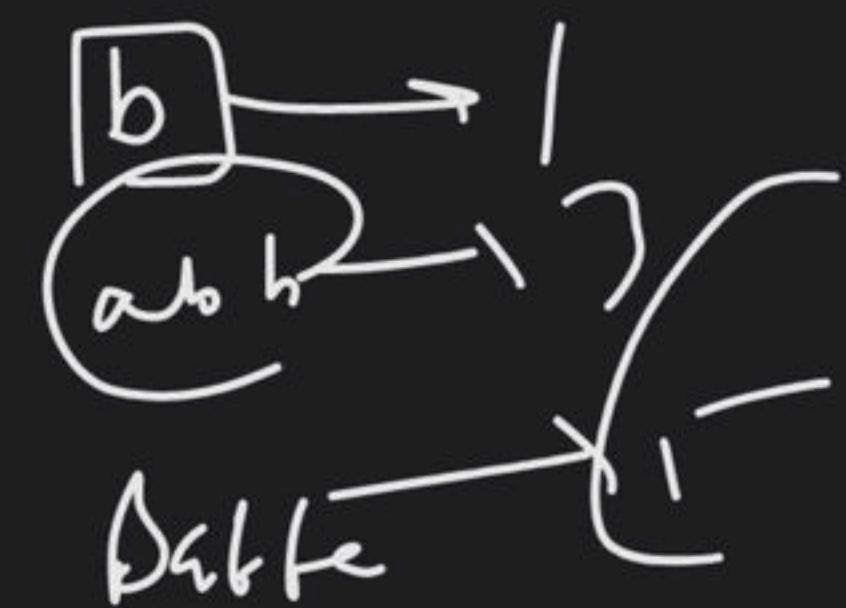
substring

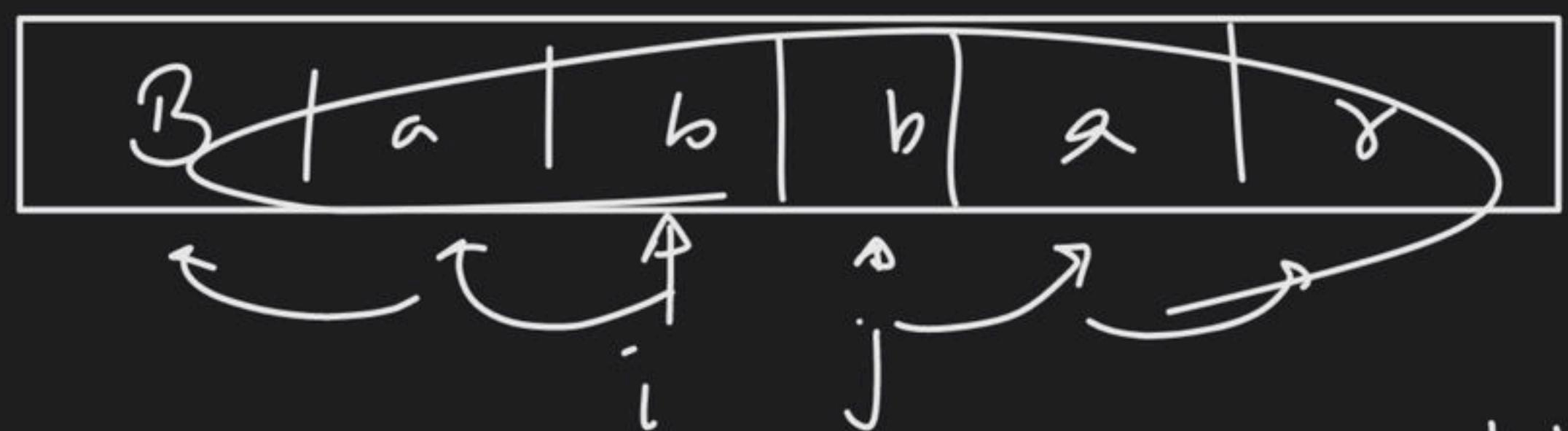
↓
odd even

j



↑
i
j





int count = 0

odd \rightarrow substit

$i = -j$

even \rightarrow substit
i, j

match

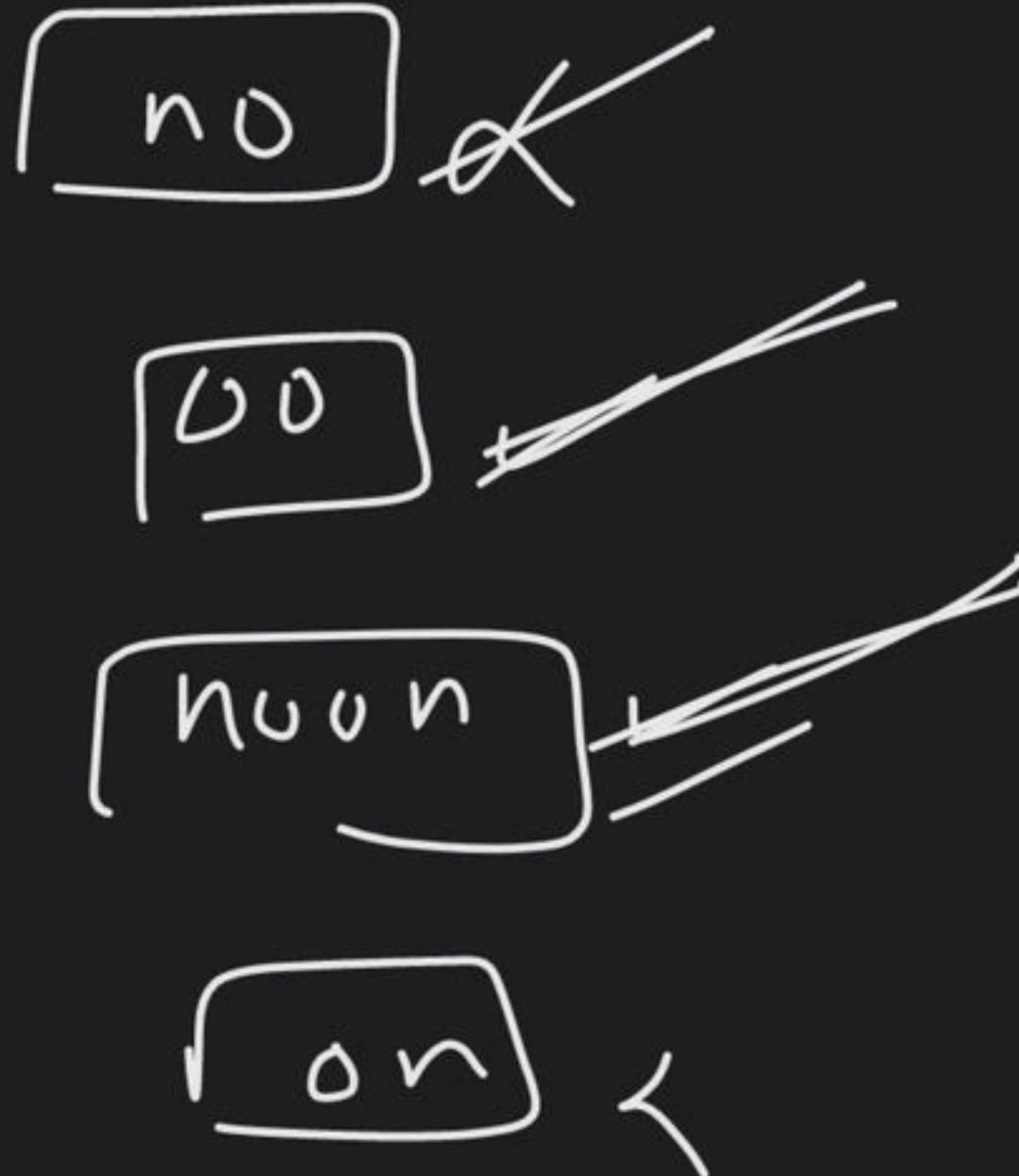
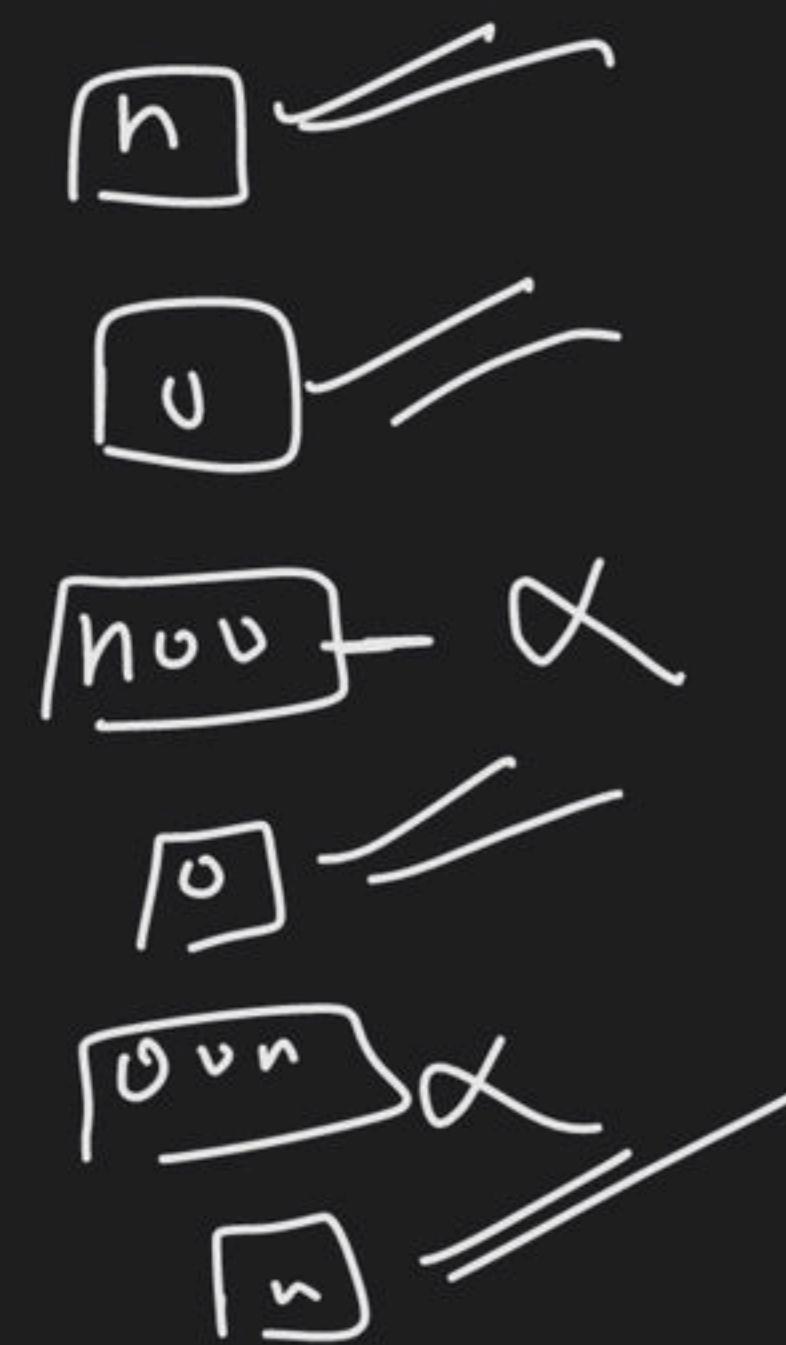
(count + 1)

bb \rightarrow 2

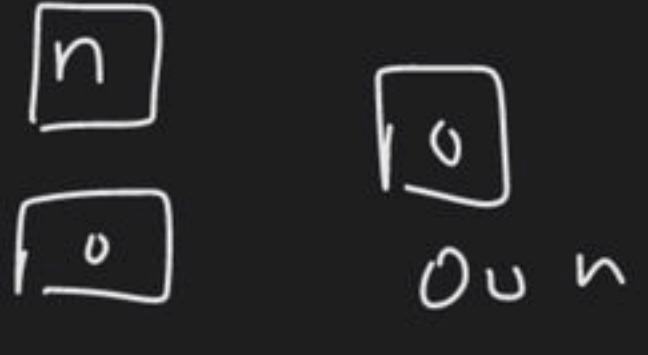
abba \rightarrow 1

babbar \rightarrow 6

Count = 10 ✓ 2 ✓ 3 ✓
✓ 4 ✓ 5 ✓



$\mathcal{O}(n^2)$



~~Count = 6, 4, 3, 4, 5, 6~~

Odd len substring

n -

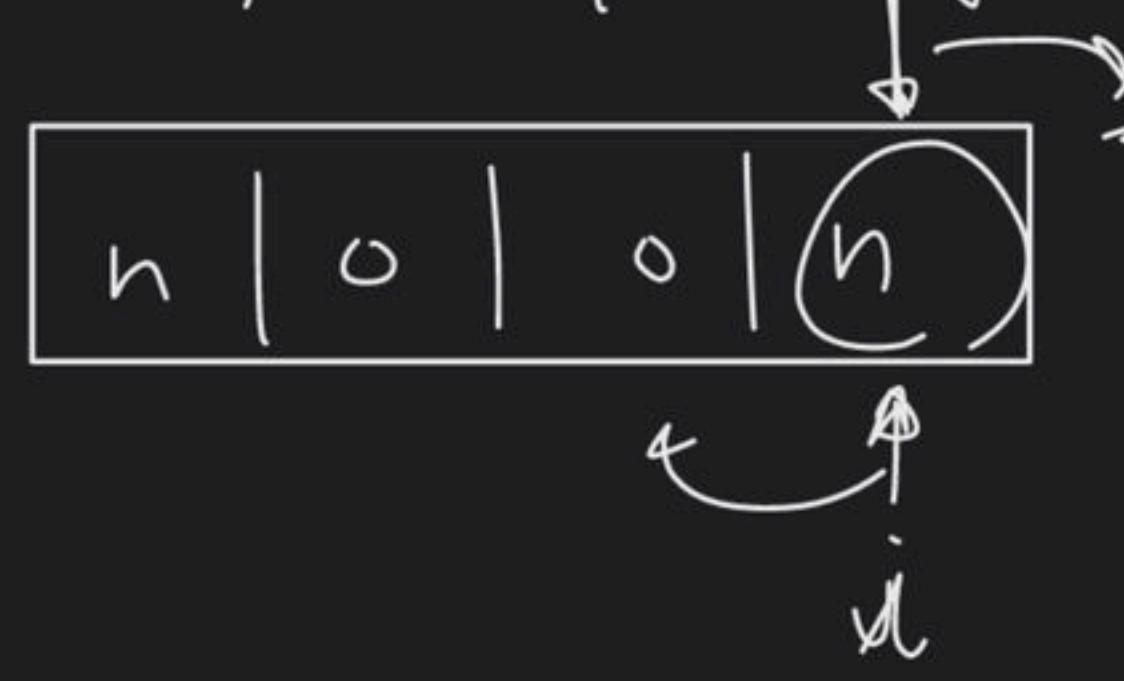
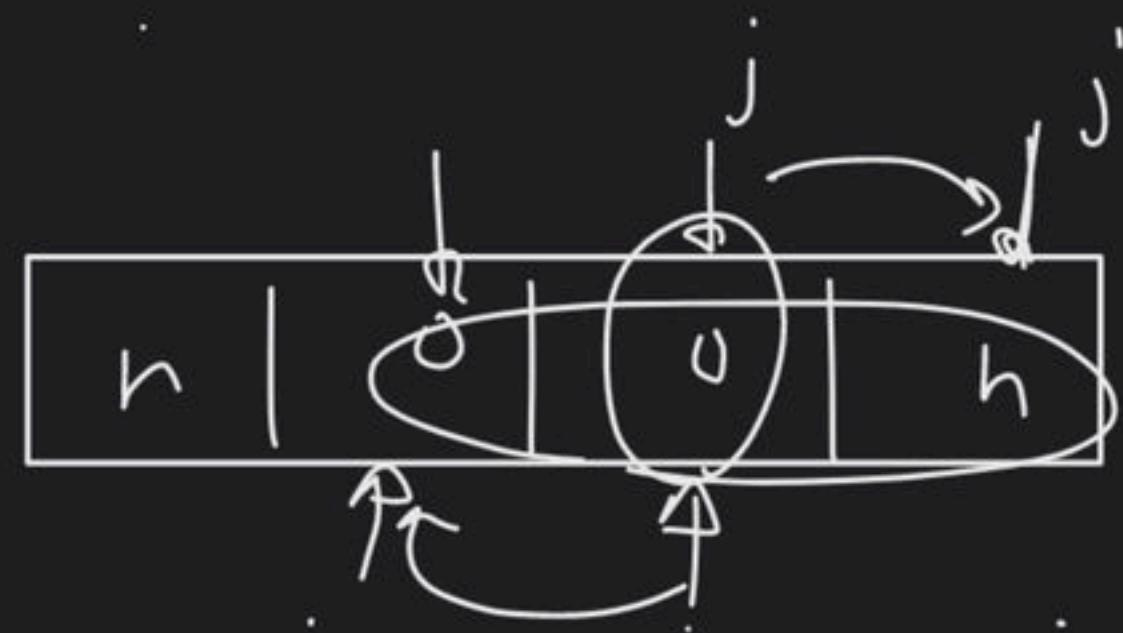
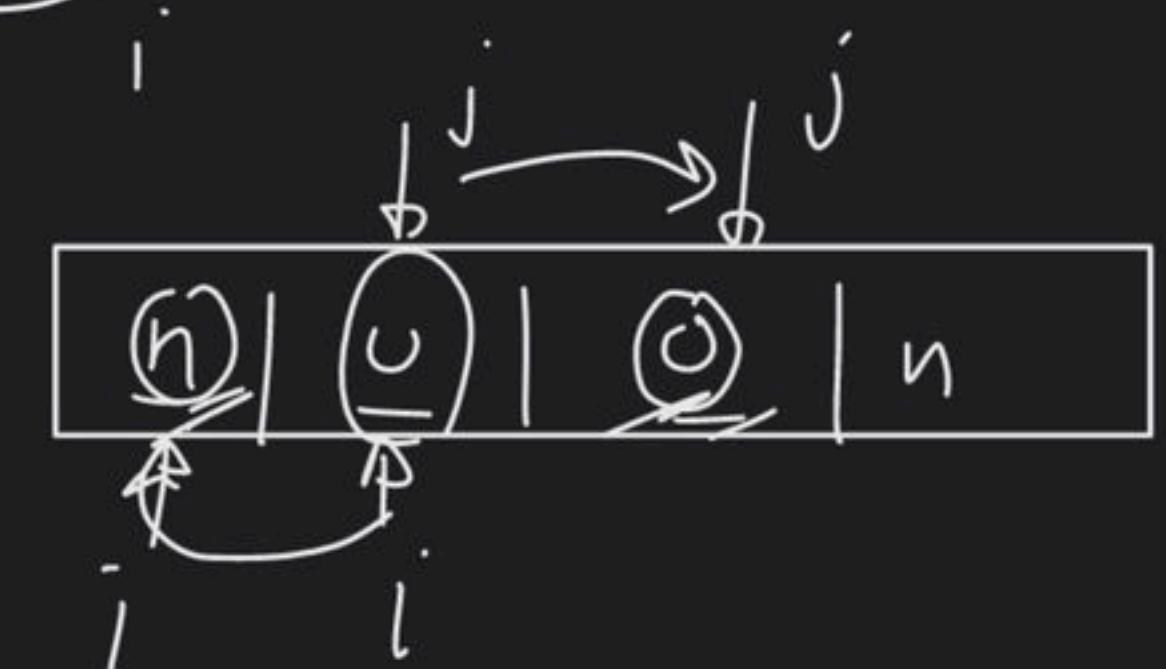
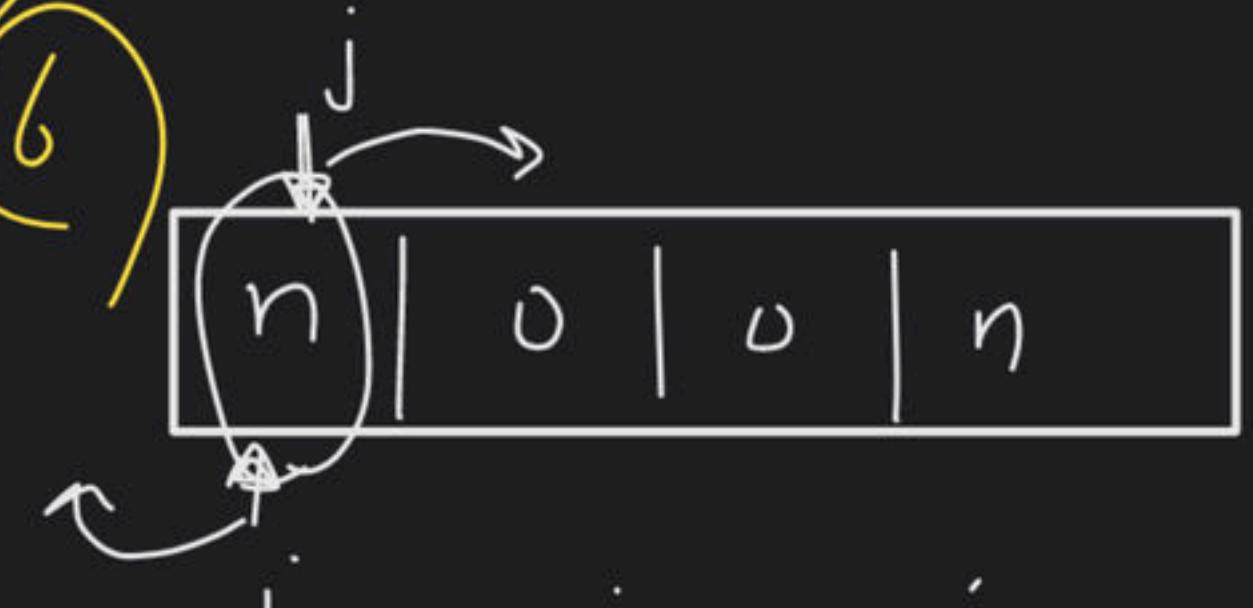
o -

hou -

oun -

match

Count inc, i-, j++



no match

Count care
by forth

68%

92%



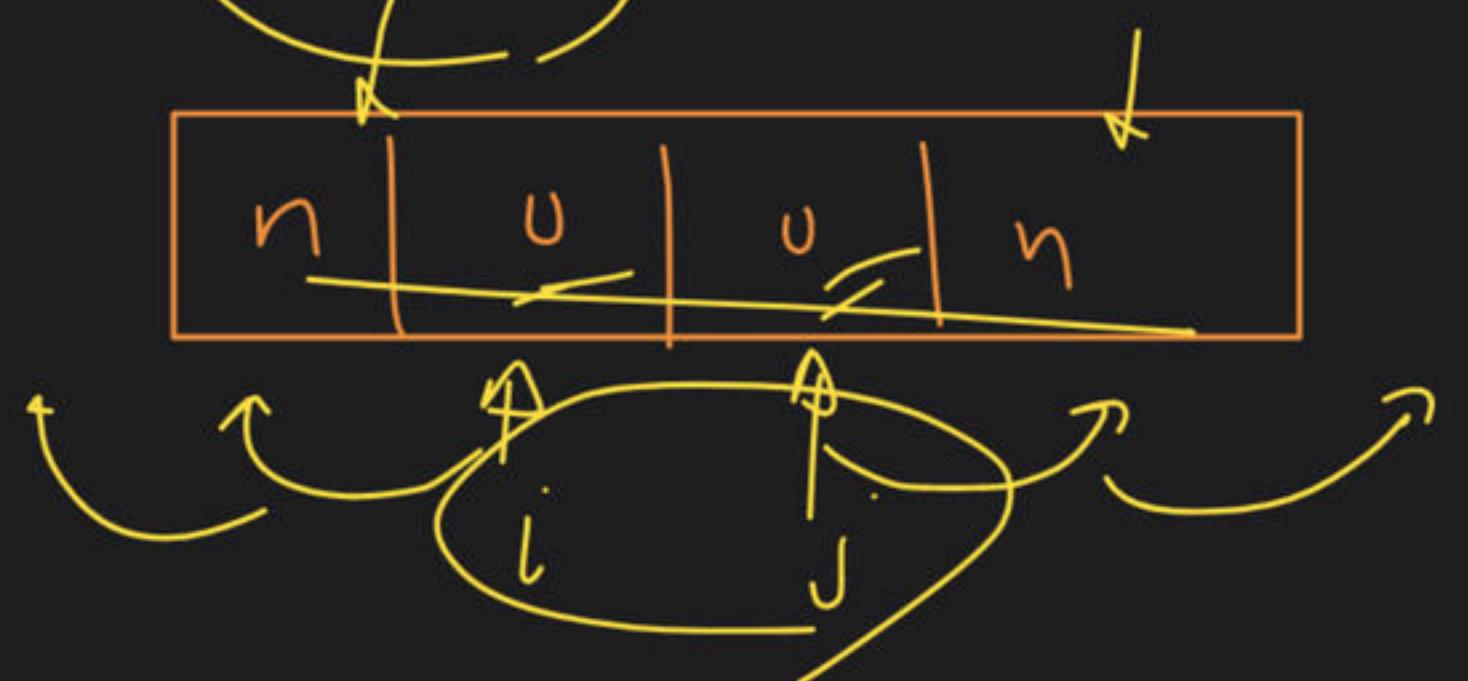
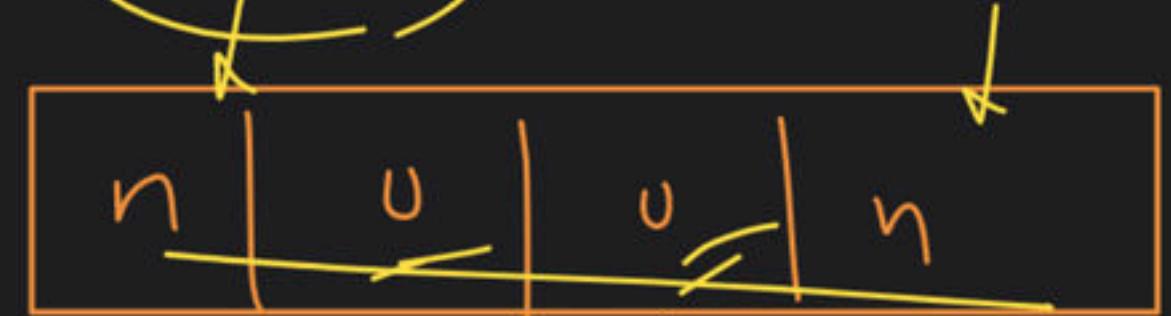
oo

houy

on



p
↑
J



p
↑
J



even
ien
whitri

nu
noon
oo
oh

↳ Valid Anagram \rightarrow 242

Reverse only letters \rightarrow 917

Longest common Prefix \rightarrow 14

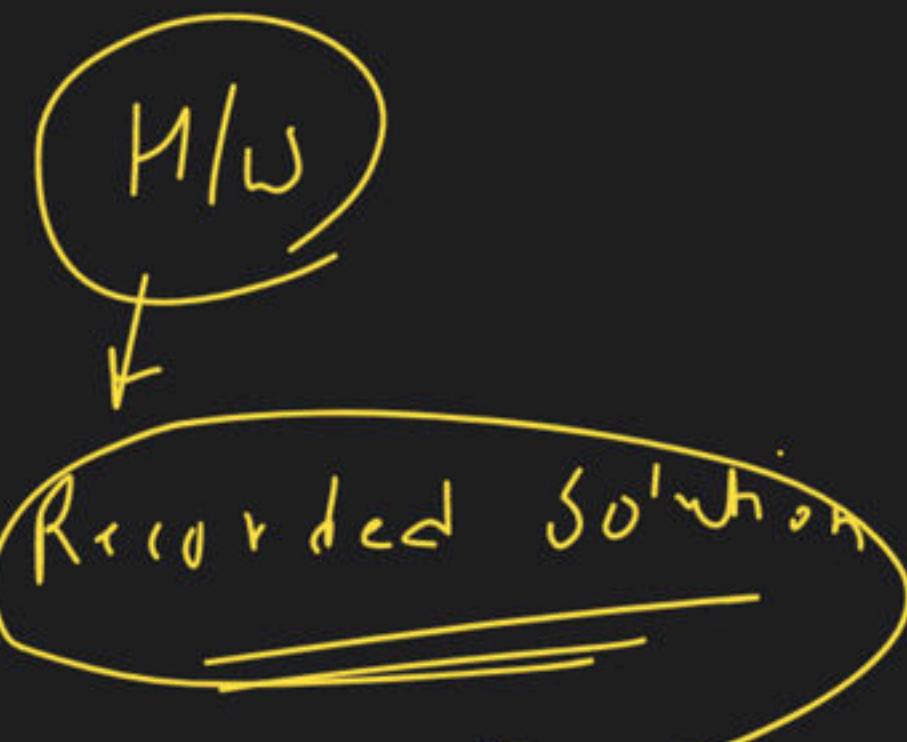
Reverse Vowels of a string \rightarrow 345

Isomorphic strings

Reorganise strings

Group Anagrams

Longest Palindromic Substring 8



\rightarrow find index of first occurrence
in a string

\rightarrow string to integer

\rightarrow String compression

\rightarrow Integer to Roman

\rightarrow Zigzag conversion

110

No Solution

179 → LC → Largest Number

791 → Custom sort string

953 → Verify Alien Dictionary

524 → Longest Word in Dictionary through
deleting

