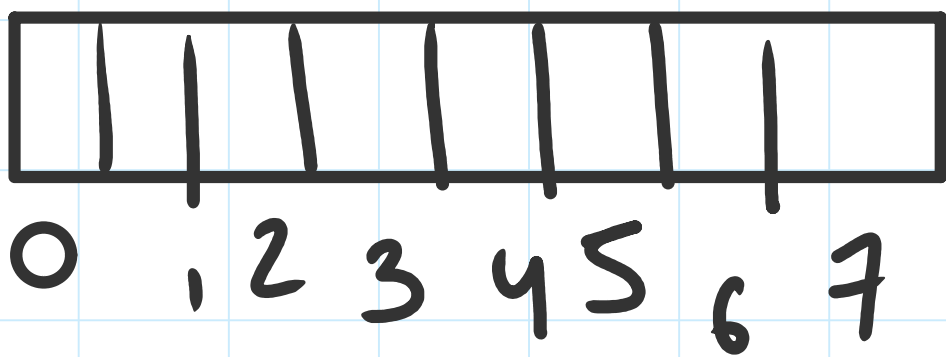


Improvement?



$$0+1+2, 1+2+3, 2+3+4$$

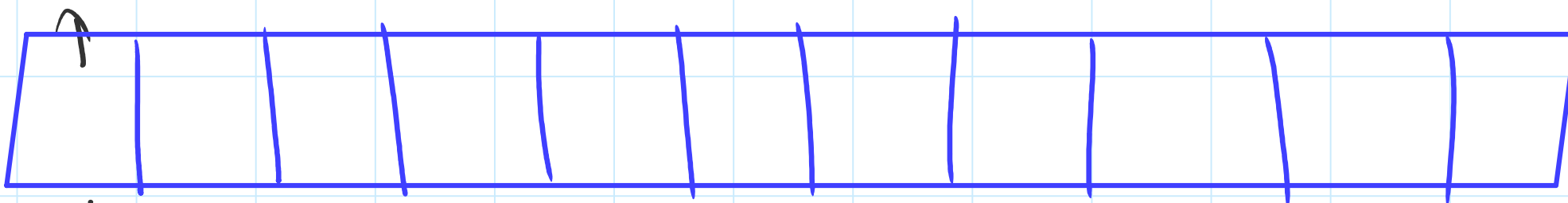
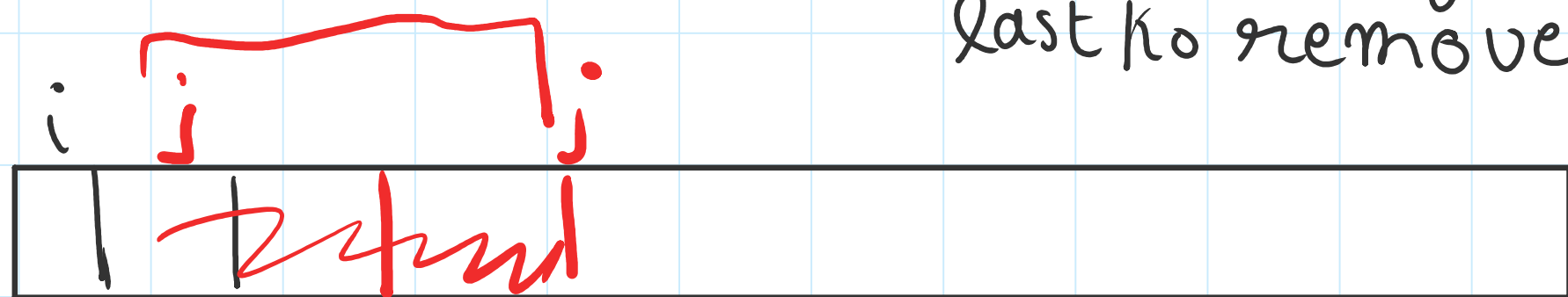
Repetitive task

$$0+1+2+3+4+5+6+7$$



$$\cancel{0}+1+2+3+4+5+6+7+8$$

new element
add kr diya
last ko remove krdo



- Identify
- array ya string ka question hoga

subarray
or
substring

→ $k = \text{window size}$
de rkh hogi

Sometimes window
size ni dia hoga

Sliding window types

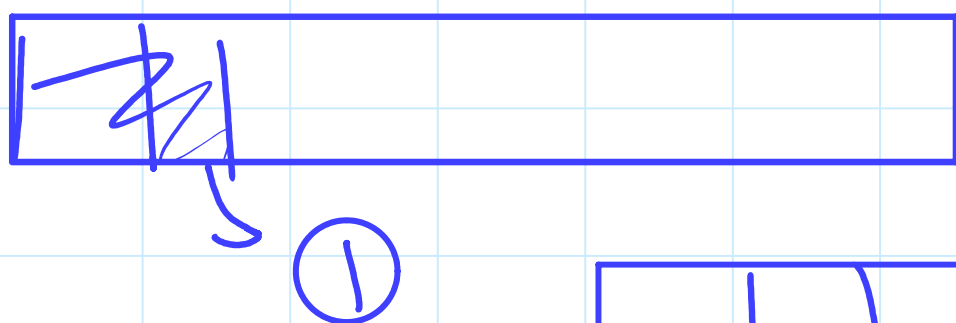
Variable
size

- de nhi rkh hogi
- change krsktte hai size
- largest window / smallest window

fixed
size

- fixed size given hogi
- like 3
- and 3 hit krte hi koi calculation krni hogi, jaise sum nikalna

Eg: ↓ sum de rakha hoga,
like 5 de dia, and kitne ka
5 aarha vo btana hai

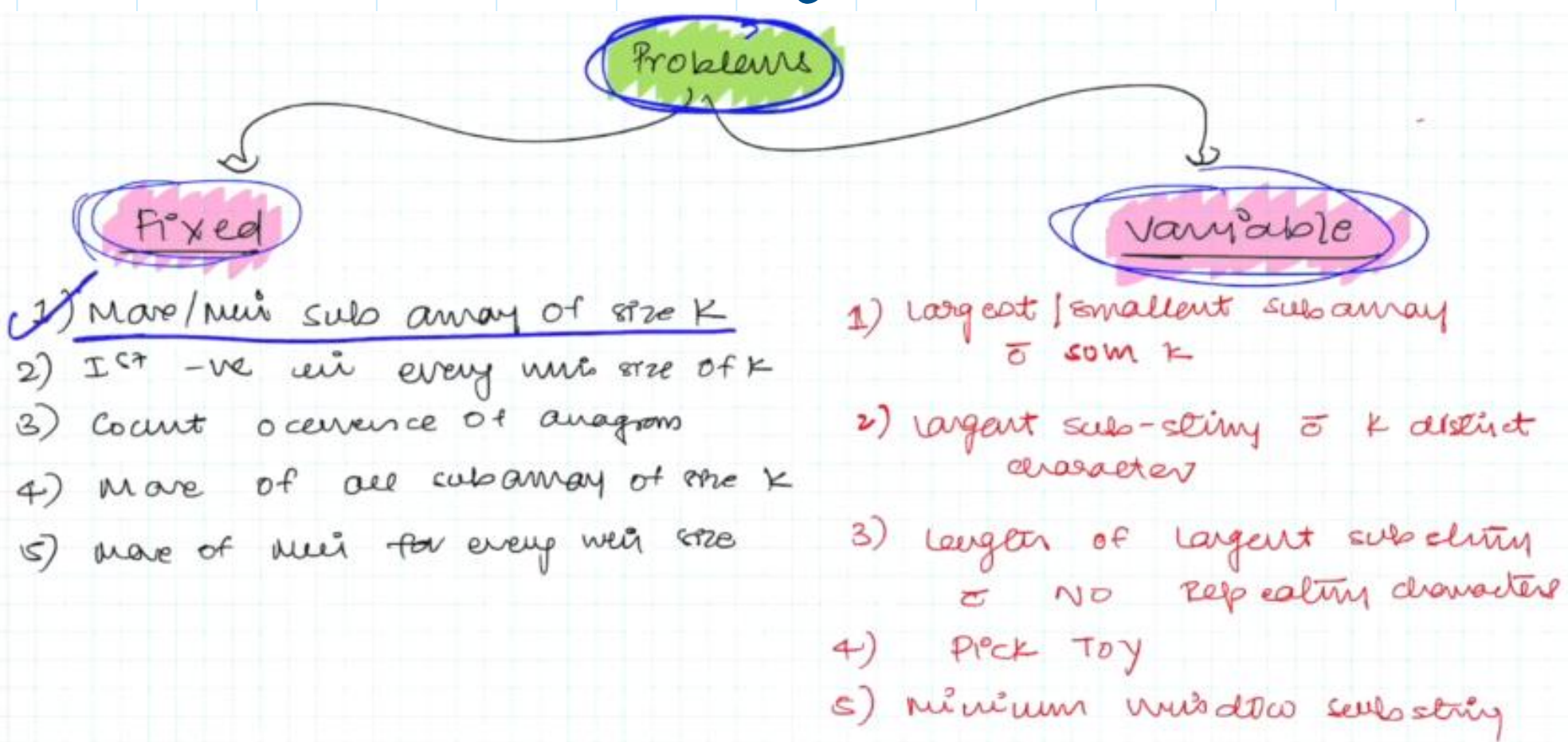


largest sub
array
with
sum 5

4



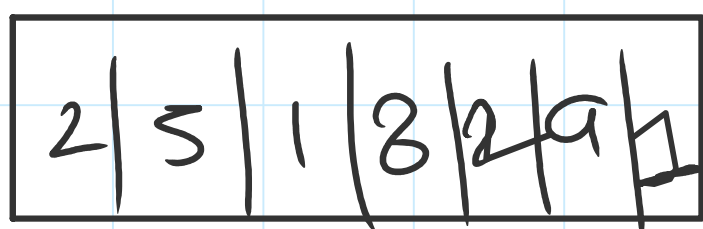
- 10 problems :-
- 5 fixed size
- 5 variable size



Max sum subarray →
 provided hoga humey window size, and uss window size ke sbhi sub array ka sum nikalna and,, jis subarray ka sum max aaye usse return karna hai

Size = 7

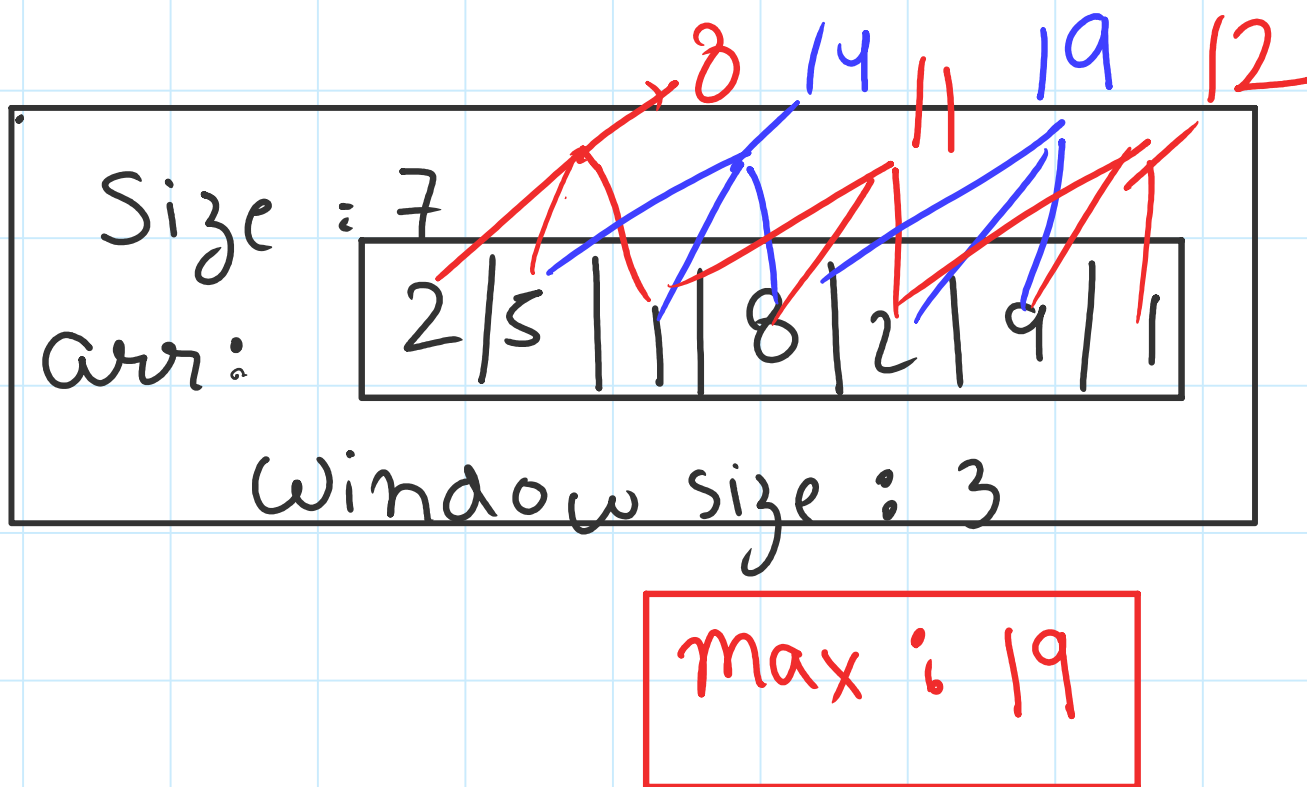
arr[] :



window
 Size = 3

Maximum Sum Subarray of size K | Sliding Window

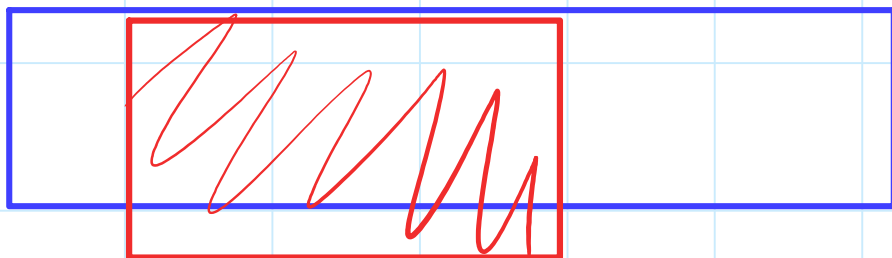
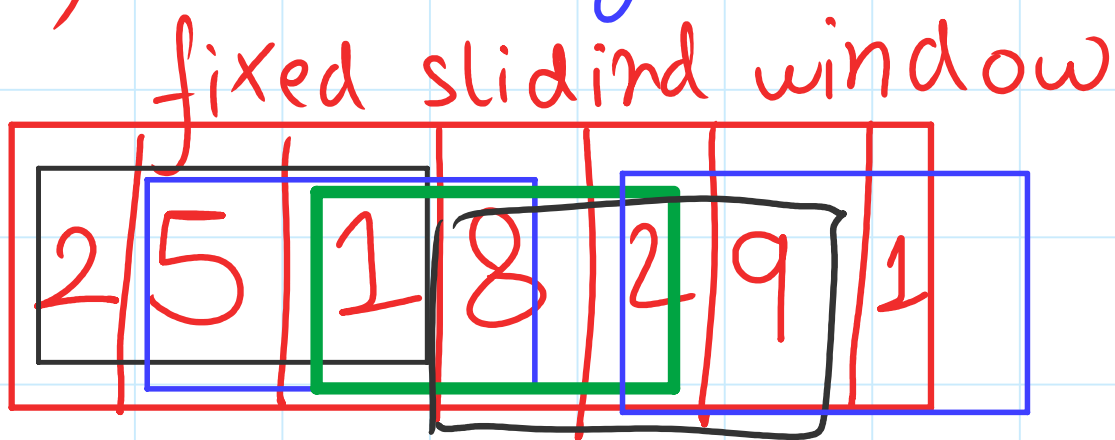
From <<https://www.youtube.com/watch?v=KtpqeN0Goro&list=PL-z-8CaSLPWeM88DJmIYDaoQ5zuwyxfj&index=3>>



Identification

Question asking :- fixed

- given 3 size window
- Subarray
- Array Question

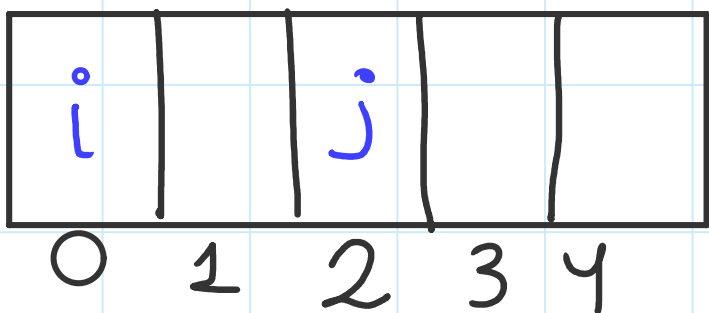


i
Start

j
end

Window size always comes out from
(j - i + 1) → becoz '0' based indexing

Day mujhe 3 size window chahiye



2 - 0 = 2 but mujhe 3 size chahiye toh +1
So $j - i + 1 = 0 - 2 + 1 = 3$