A) Fixed size

1) Max Sum Subarray of size K (Maximum among sum of all subarrays of size k)

<https://practice.geeksforgeeks.org/problems/max-sum-subarray-of-size-k5313/1>

2) Count Occurrences of Anagrams

<https://practice.geeksforgeeks.org/problems/count-occurences-of-anagrams5839/1>

<https://www.youtube.com/watch?v=MW4lJ8Y0xXk&list=PL_z_8CaSLPWeM8BDJmIYDaoQ5zuwyxnfj&index=>5

See video from 35 minutes

3) Maximum Points You Can Obtain from Cards

<https://leetcode.com/problems/maximum-points-you-can-obtain-from-cards>

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B) Fixed size with deque

1) First negative integer in every window of size k

<https://practice.geeksforgeeks.org/problems/first-negative-integer-in-every-window-of-size-k3345/1>

2) Sliding Window Maximum

<https://leetcode.com/problems/sliding-window-maximum/>

<https://www.youtube.com/watch?v=xFJXtB5vSmM&list=PL_z_8CaSLPWeM8BDJmIYDaoQ5zuwyxnfj&index=6>

See this video from 36 minutes, to get idea in short.

3) Sum of minimum and maximum in every window of size k

<https://www.codingninjas.com/studio/problems/sum-of-minimum-and-maximum-elements-of-all-subarrays-of-size-k_1171047?leftPanelTab=1>

Same as above approach, just add deque of mini and same logic copy pasted

See the code kalun jail.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

C) Variable size

1) Subarray with given sum (we have to return start and end index of that subarray)

[https://practice.geeksforgeeks.org/problems/subarray-with-given-sum-1587115621/1?page=1&category[]=sliding-window&sortBy=difficulty](https://practice.geeksforgeeks.org/problems/subarray-with-given-sum-1587115621/1?page=1&category%5b%5d=sliding-window&sortBy=difficulty)

2) Longest Subarray with Sum K (Only positive elements, for negative elements we can use map and prefix sum)

<https://www.codingninjas.com/studio/problems/longest-subarray-with-sum-k_6682399?utm_source=striver&utm_medium=website&utm_campaign=a_zcoursetuf&leftPanelTab=1>

3) Longest K unique characters substring

<https://practice.geeksforgeeks.org/problems/longest-k-unique-characters-substring0853/1>

4) Longest Substring Without Repeating Characters

<https://leetcode.com/problems/longest-substring-without-repeating-characters>

5) Fruits Into Baskets (We can pick maximum 2 types of fruits, same question as longest substring having k distinct characters, here k == 2)

(2 ch types che pahije asa kahi nahi, jastit jast 2 type che gheu shakto asa, 1 pn chalel)

<https://leetcode.com/problems/fruit-into-baskets/>

6) Max Consecutive Ones III

<https://leetcode.com/problems/max-consecutive-ones-iii/description/>

7) Longest Repeating Character Replacement

<https://leetcode.com/problems/longest-repeating-character-replacement/description/>

8) Longest Substring with At Most K Distinct Characters

<https://www.codingninjas.com/studio/problems/longest-substring-with-at-most-k-distinct-characters_2221410?utm_source=striver&utm_medium=website&utm_campaign=a_zcoursetuf>

9) Minimum Window Substring

<https://leetcode.com/problems/minimum-window-substring/description/>

D) atMost Vala pattern, count number of subarrays (variable size only, but of counting subarrays!)

Keep in mind:

a) Exactly(k) = atMost(k) - atMost(k-1)

b) In atmost function: "ANS += RIGHT - LEFT + 1"

1) Binary Subarrays with Sum

<https://leetcode.com/problems/binary-subarrays-with-sum/description/>

2) Count Number of Nice Subarrays

<https://leetcode.com/problems/count-number-of-nice-subarrays/description/>

Similar to above approach!!!!

In above problem, we were keeping the track of sum; and here we just keep the track of odd numbers in the window.

3) Number of Substrings Containing All Three Characters

<https://leetcode.com/problems/number-of-substrings-containing-all-three-characters/description/>

4) Subarrays with K Different Integers

<https://leetcode.com/problems/subarrays-with-k-different-integers/description/>

Same to same code as above!!

The code is exactly same!!