

# 100 Real Fixed-Length Sliding Window Questions

1. Maximum sum of any subarray of size K
2. Minimum sum of any subarray of size K
3. Count subarrays of size K with sum  $\geq X$
4. Count subarrays of size K with sum  $\leq X$
5. Maximum average of subarray size K
6. Minimum average of subarray size K
7. First negative number in every window of size K
8. First positive number in every window of size K
9. Count windows of size K with exactly X even numbers
10. Count windows of size K with exactly X odd numbers
11. Count windows of size K where all elements are distinct
12. Count windows of size K where at least one duplicate exists
13. Maximum product of subarray size K
14. Minimum product of subarray size K
15. Maximum difference between max and min in window size K
16. Check if all characters in window size K are vowels
17. Count windows size K where sum is divisible by X
18. Count windows size K where product is divisible by X
19. Maximum ASCII sum of substring length K
20. Minimum ASCII sum of substring length K
21. Count windows of size K with exactly X uppercase letters
22. Count windows of size K with exactly X lowercase letters
23. Count windows size K where substring has X vowels
24. Count windows size K where substring has X consonants
25. Check if substring of length K contains unique chars
26. Longest streak of fixed K where characters repeat
27. Count windows of size K matching a given frequency map
28. Find all anagrams using a fixed window of size K
29. Count fixed-length palindromes in a string
30. Count binary substrings of length K with equal 0s and 1s
31. Count windows of size K where max element is  $< X$
32. Count windows of size K where min element is  $> X$
33. Find maximum number of prime numbers in any window size K
34. Count windows size K where sum of digits is even
35. Count windows size K where sum of digits is odd
36. Maximum repeating character frequency in windows of size K
37. Count windows size K with exactly X occurrences of a character

38. Find windows of size K where characters are sorted
39. Check if substring of size K forms valid parentheses
40. Count windows size K where substring contains 'abc'
41. Maximum number of distinct characters in windows of size K
42. Count windows where substring of size K has no digits
43. Count windows where substring of size K has no letters
44. Longest block of windows size K where sum strictly increases
45. Longest block of windows size K where sum strictly decreases
46. Check if any window size K is a rotation of string P
47. Count windows size K where XOR of elements is even
48. Count windows size K where XOR of elements is odd
49. Minimum sum window of size K in circular array
50. Maximum sum window of size K in circular array
51. Number of windows size K with exactly one peak element
52. Number of windows size K with no peak element
53. Count windows size K where difference between adjacent chars  $\leq 1$
54. Find fixed-length window where substring occurs in dictionary
55. Count windows size K representing valid time formats
56. Maximum consecutive consonants in any window size K
57. Minimum consecutive vowels in any window size K
58. Count windows size K where binary substring  $\geq$  given binary number
59. Count windows size K where binary substring  $\leq$  given binary number
60. Count windows size K where substring is valid hex
61. Find windows of size K where sum of squares is maximum
62. Find windows of size K where sum of squares is minimum
63. Count windows size K where product of digits is prime
64. Count windows size K where product of digits is composite
65. Maximum difference between index of max and min elements in window K
66. Count windows size K with exactly X distinct vowels
67. Count windows size K with exactly X distinct consonants
68. Find windows size K where all characters belong to same alphabet group
69. Count windows size K where substring reversed equals a target
70. Count windows size K where substring equals target ignoring case
71. Check windows size K where sum of ASCII codes is prime
72. Check windows size K where sum of ASCII codes is composite
73. Count windows size K where substring contains alternating chars
74. Count windows size K with no repeating vowels
75. Count windows size K with no repeating consonants
76. Maximum number of digit characters in any window size K

77. Minimum number of digit characters in any window size K
78. Count windows size K where substring starts with vowel
79. Count windows size K where substring ends with consonant
80. Check windows size K where substring is lexicographically increasing
81. Check windows size K where substring is lexicographically decreasing
82. Count windows size K where square of sum is divisible by X
83. Count windows size K where sum of cubes is divisible by X
84. Maximum number of uppercase letters in any window size K
85. Maximum number of lowercase letters in any window size K
86. Count windows size K where char frequencies match reversed pattern
87. Check windows size K where sorted substring equals sorted target
88. Count windows size K where substring contains at least 1 special char
89. Count windows size K where substring contains no special chars
90. Check windows size K where substring forms a valid binary code
91. Count windows size K where substring forms valid octal code
92. Count windows size K where substring forms valid decimal number
93. Count windows size K where substring forms valid IP block
94. Find fixed-size substring windows that maximize vowel density
95. Find fixed-size substring windows that maximize consonant density
96. Count windows size K where sum of indices of vowels is even
97. Count windows size K where sum of indices of vowels is odd
98. Find windows size K with highest frequency of given char
99. Find windows size K with lowest frequency of given char
100. Count windows size K where substring matches regex-like pattern