

Ques Max of every k sized subarray

1 2 3 1 4 5 2 3 6

3 3 4 5 5 5 6

k=3

$k \approx n/2$

TC $\Rightarrow \underline{O(k)} \times (n-k)$

to analyse
1 window of
size k

$\Rightarrow O(n^2)$

$k \times (n-k)$
 $n/2 (n - n/2) \Rightarrow \frac{n^2}{4} \Rightarrow O(n^2)$

1	2	3	4	5
0	0	0	0	0
<hr/>				
w_1				w_2

$w_2 \approx w_1 - 1 + 5$

① 1 2 3 4

② 4 3 2 1

dq

8
6

k = 4

0	1	2	3	4	5	6	7	8
1	2	3	1	4	5	2	3	6
<hr/>								
3	4	5	<hr/>					
			5	<hr/>				
				5	<hr/>			
					6	<hr/>		

↑

k

- ① Remove elements out of window from start
- ② Remove all smaller elements from end
- ③ Add current element
- ④ Print ans

Ques Bob's Interview

$$x \leq k \leq n$$

3 3

k=3

1 0 1 1 0 1 0 1
 ↑

nI = ~~0~~
1 2 1 2

Ques Alternate string

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

① rotate

② toggle

i/2

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

1 1 0 0 0 1

1 0 0 0 1 1

0 0 0 1 1 1

0 0 1 1 1 0

0 1 1 1 0 0

1 1 1 0 0 0

0 1 1 1 0 0

0 1 0 1 0 1

