

# Find K Closest Elements

two pointers

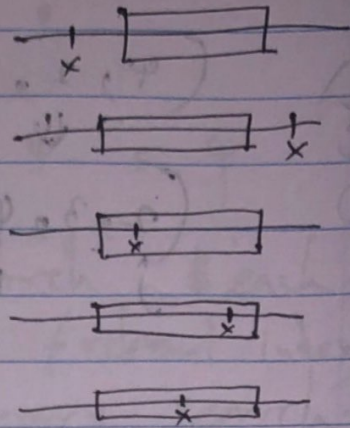
[1, 1, 2, 2, 2, 2, 3, 3]

L

R

$$|arr[l] - x| > |arr[r] - x|$$

or not.

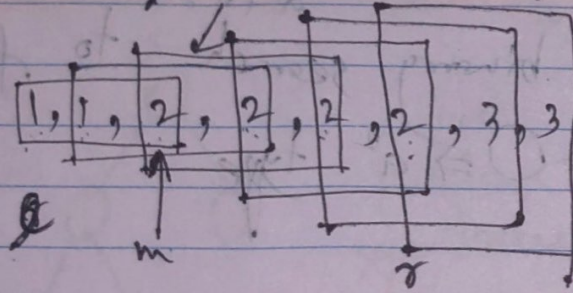


give priority when  $|arr[l] - x| = |arr[r] - x|$

move ← direction

binary search

[1, 1, 2, 2, 2, 2, 3, 3] K=3



1, 1, 2, 2, 2, 2, 3, 3

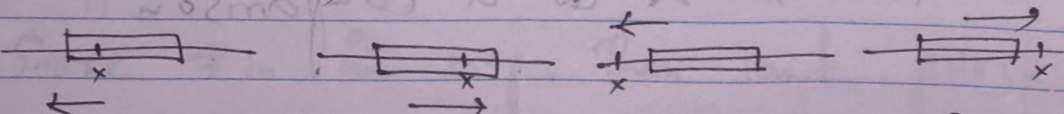
l

m

r

when  $arr[m] - x = arr[m+K] - x$  move ←

or stay still



$$x - arr[m] > arr[m+K] - x$$