

Ques

0	0	0	0	0	1	1	1	1	1
0	1	2	3	4	5	6	7	8	9

↑  
i

↑  
j

psudo code

loop goes for 'j'  
if element is 1  
j++

else  
swap(i, j)  
i++  
j++

Imp

meanings

zeros

i

ones

j

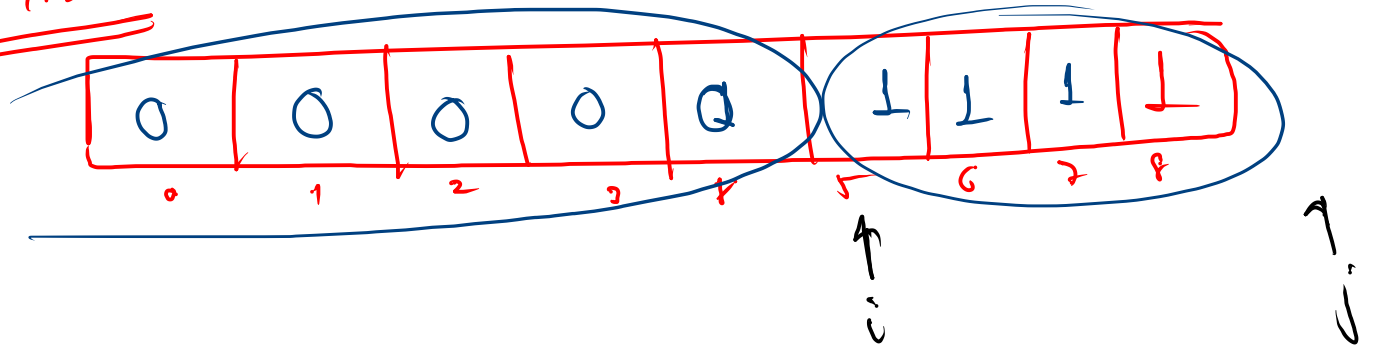
unexplored

```

int i = 0, j = 0;
while ( j < n ) {
    if ( arr[j] == 0 ) {
        swap( arr, i, j );
        i++;
        j++;
    } else {
        j++;
    }
}

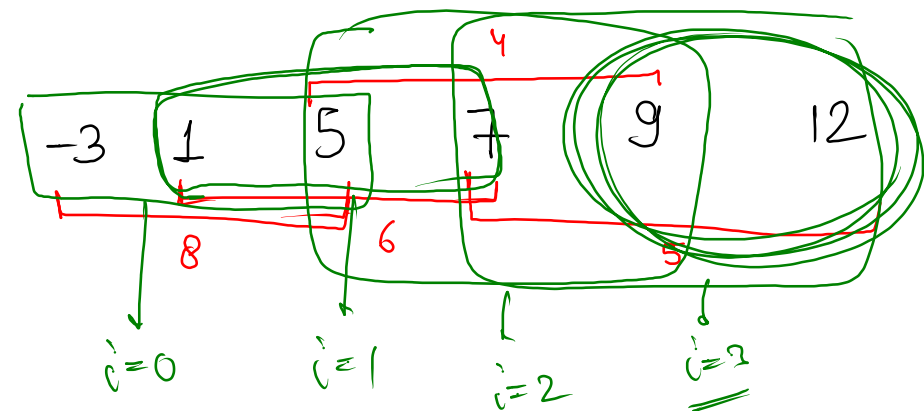
```

arr[j] == 0



# Minimum difference

9	1	5	7	-3	12
0	1	2	3	4	5



$k=3$   
10

$k=5$

$n=6$

$k=3$

$i=4$

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    Integer[] arr = new Integer[n];
    for (int i = 0; i < n; i++) {
        arr[i] = scn.nextInt();
    }
    int k = scn.nextInt();

    int ans = minDiff(arr, n, k);
    System.out.println(ans);
}
```

```
public static int minDiff(Integer[] arr, int n, int k) {
    Arrays.sort(arr);
    //===== only for me
    int ans = Integer.MAX_VALUE;
    for (int i = 0; i <= n - k; i++) {
        int diff = arr[i + k - 1] - arr[i];
        if (diff < ans) {
            ans = diff;
        }
    }
    return ans;
}
```

not  
for  
you