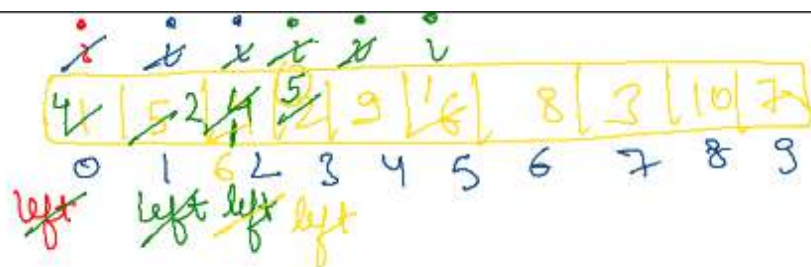


Ques

arr



int left = 0;

for (int i = 0; i < arr.length; i++) {

if (arr[i] % 2 == 0) {

int temp = arr[i];
arr[i] = arr[left];
arr[left] = temp;
left++;

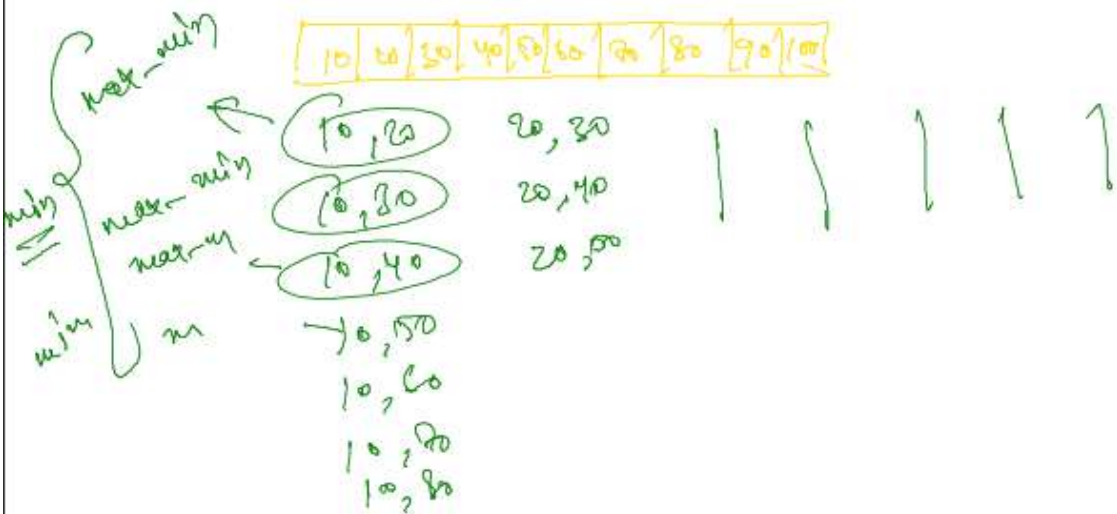
}

Q min diff 7

$$k = 2$$

$$50 - 20 = 30$$

min



arr

0	3	8	2	6	9	5
---	---	---	---	---	---	---

$$k = 3$$

sorted arr =

0	2	3	5	6	7	8	9
---	---	---	---	---	---	---	---

0 1 2 3 4 5 6 7

ans = 2

for (i = 0 to arr.length - k)

max = arr[i+k-1]

min = arr[i]

ans = Math.min(ans, max-min);

ans = ans

```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
int[] arr = new int[n];
for(int i=0; i<n; i++){
    arr[i] = scn.nextInt();
}
int k = scn.nextInt();
int ans = Integer.MAX_VALUE;
Arrays.sort(arr);
for(int i=0; i<=arr.length-k; i++){
    int min = arr[i];
    int max = arr[i+k-1];
    ans = Math.min(ans, max-min);
}

```

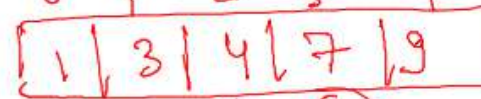
$k=3$

arr



1+4=5

sort =



5

$ans = 10$

3

$i \leq arr.length - k$

$(3) k=2$

$5-2$

$i=3$

false

$3-2=2$

System.out.println(ans);

/* Enter your code here. Read input from STDIN. Print output to STDOUT */

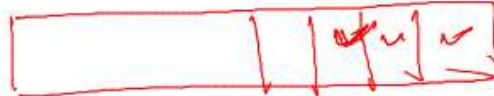
$O(n \log n) + O(n)$

$O(n \log n)$

$5-3$

2

$(k) \neq 3$



?

0

$(arr.length - k)$

Ques \Rightarrow arr =

10	49	90	2	1	5	28
----	----	----	---	---	---	----

ex \Rightarrow \checkmark a > b < c > d < e
 $\text{arr}[0]$ $\text{arr}[1]$ $\text{arr}[2]$ $\text{arr}[3]$ $\text{arr}[4]$

$[\text{arr}[0] > \text{arr}[1] < \text{arr}[2] > \text{arr}[3] < \text{arr}[4]] \checkmark$

$[1, 2, 5, 10, 28, 49, 90]$

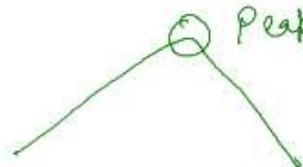
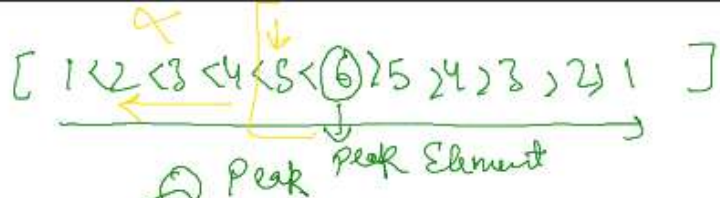
$[2 > 1 < 10 > 5 < 49 > 28 < 90]$

```
Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
int[] arr = new int[n];
for(int i=0; i<n; i++){
    arr[i] = scn.nextInt();
}

Arrays.sort(arr);
for(int i=0; i<arr.length-1; i+=2){
    int temp = arr[i];
    arr[i] = arr[i+1];
    arr[i+1] = temp;
}

for(int i=0; i<arr.length; i++){
    System.out.print(arr[i]+" ");
}
/* Enter your code here. Read input from STDIN. Print output
}
```

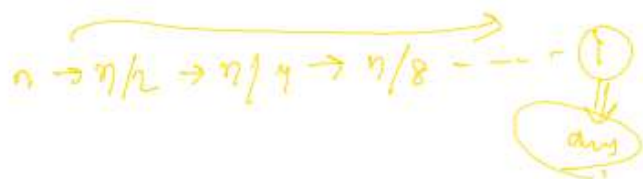
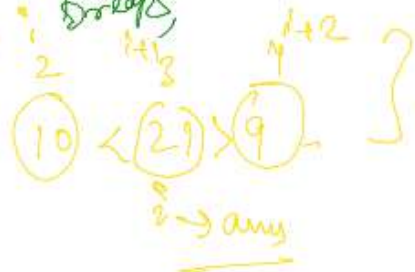
Ques



$$\{arr[i] < arr[i+1] > arr[i+2]\}$$

$arr[i+1]$

break;



0 2 1 0

0 < 2 > 1 > 0

0 1 2 3

ans 1

(ArrayList), List

$arr[i]$
 $arr.get(i);$

$arr[i] = val;$

$arr.add(i, val);$