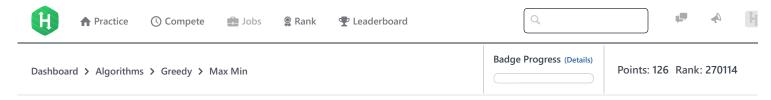
15/11/2017 HackerRank



Max Min



Problem Submissions Leaderboard Discussions Editorial 🔒 Topics

Given a list of N integers, your task is to select K integers from the list such that its *unfairness* is minimized.

if (x_1,x_2,x_3,\ldots,x_k) are K numbers selected from the list N, the unfairness is defined as

$$max(x_1,x_2,\ldots,x_k) - min(x_1,x_2,\ldots,x_k)$$

where max denotes the largest integer among the elements of K, and min denotes the smallest integer among the elements of K.

Note: Integers in the list N may not be unique.

Input Format

Input Format

The first line contains an integer N.

The second line contains an integer K.

N lines follow. Each line contains an integer that belongs to the list N.

Constraints

Constraints

 $2 \le N \le 10^5$

 $2 \le K \le N$

 $0 \le integer in N \le 10^9$

Output Format

Output Format

An integer that denotes the minimum possible value of unfairness.

Sample Input 0

7

3

10 100

300

200

1000

20 30

Sample Output 0

20

Explanation 0

Here $\emph{\textbf{K}}=\emph{\textbf{3}}$; selecting the $\emph{\textbf{3}}$ integers $\emph{\textbf{10}},\emph{\textbf{20}},\emph{\textbf{30}}$, unfairness equals

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```
\max(10,20,30) - \min(10,20,30) = 30 - 10 = 20
```

Sample Input 1

200

Sample Output 1

3

Explanation 1

Here K=4; selecting the **4** integers **1, 2, 3, 4**, unfairness equals

```
\max(1,2,3,4) - \min(1,2,3,4) = 4 - 1 = 3
```

```
Submissions:38963
Max Score:35
Difficulty: Medium

Rate This Challenge:
☆☆☆☆☆

Need Help?

Two Pointer Technique

Greedy Technique

Sorting

More
```

```
Current Buffer (saved locally, editable) & 49
                                                                                         Java 7
                                                                                                                          *
 1 ▼ import java.io.BufferedReader;
 2 import java.io.IOException;
   import java.io.InputStreamReader;
 4
   import java.util.Arrays;
    // The part of the program involving reading from STDIN and writing to STDOUT has been provided by us.
 6
 8 ▼ public class Solution {
 9
10 ▼
       public static void main(String[] args) throws NumberFormatException, IOException {
11
          BufferedReader in = new BufferedReader(new InputStreamReader(System.in));
12
13
          int N = Integer.parseInt(in.readLine());
          int K = Integer.parseInt(in.readLine());
14
15
          int[] list = new int[N];
16
          for(int i = 0; i < N; i ++)
```

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```
18 ▼
              list[i] = Integer.parseInt(in.readLine());
19
           int unfairness = Integer.MAX_VALUE;
20
21
22 🔻
           * Write your code here, to process numPackets N, numKids K, and the packets of candies
23
            * Compute the ideal value for unfairness over here
24
25
26
          System.out.println(unfairness);
27
28
        }
29
    }
30
                                                                                                                    Line: 1 Col: 1
1 Upload Code as File
                      Test against custom input
                                                                                                        Run Code
                                                                                                                     Submit Code
```

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