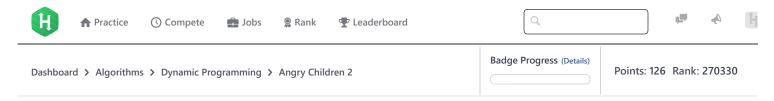
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Angry Children 2 ■



Problem Submissions Leaderboard Discussions Editorial €

Bill Gates is on one of his philanthropic journeys to a village in Utopia. He has **N** packets of candies and would like to distribute one packet to each of the **K** children in the village (each packet may contain different number of candies). To avoid a fight between the children, he would like to pick **K** out of **N** packets such that the unfairness is minimized.

Suppose the **K** packets have $(x_1, x_2, x_3,...x_k)$ candies in them, where x_i denotes the number of candies in the ith packet, then we define unfairness as

$$\sum_{1 \le i < j \le k} |X_i - X_j|$$

where |a| denotes the absolute value of a.

Input Format

The first line contains an integer N.

The second line contains an integer K.

N lines follow each integer containing the candy in the ith packet.

Output Format

A single integer which will be minimum unfairness.

Constraints

2<=N<=10⁵

2<=K<=N

0<= number of candies in each packet <=10⁹

Sample Input #00

7

3

10

100 300

200

1000

20

Sample Output #00

40

Explanation #00

Bill Gates will choose packets having 10, 20 and 30 candies. So unfairness will be |10-20| + |20-30| + |10-30| = 40. We can verify that it will be minimum in this way.

Sample Input #01

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```
10
4
1
2
3
4
10
20
30
40
100
200
```

Sample Output #01

10

Explanation #01

Bill Gates will choose 4 packets having 1,2,3 and 4 candies. So, unfairness will be |1-2| + |1-3| + |1-4| + |2-3| + |2-4| + |3-4| = 10

f ¥ in Submissions: 2813 Max Score:50 Difficulty: Hard Rate This Challenge: $\triangle \triangle \triangle \triangle \triangle \triangle$

More

```
Current Buffer (saved locally, editable) & 49
                                                                                           Java 7
 8 ▼ import java.io.*;
 9
   import java.util.*;
10
    import java.text.*;
    import java.math.*;
12
    import java.util.regex.*;
13
14 ▼ public class Solution {
15
         public static void solve(int[] arr, int N, int K) {
16 ▼
17
18
19
20 🔻
        public static void main(String[] args) throws Exception {
21
           BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
22
             int N = Integer.parseInt(br.readLine());
             int K = Integer.parseInt(br.readLine());
23
24 ▼
             int [] arr = new int[N];
             for(int i = 0; i < N; i++)
25
26 ▼
              arr[i] = Integer.parseInt(br.readLine());
27
             solve(arr, N, K);
28
        }
29
    }
30
                                                                                                                    Line: 1 Col: 1
                                                                                                        Run Code
                                                                                                                     Submit Code
                     Test against custom input
```

Join us on IRC at #hackerrank on freenode for hugs or bugs.

1 Upload Code as File

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