Function Optimization

Given an array A of N positive integers and an integer M, your task is to pick M integers from A into an array B such that the function F given below gives the least possible value:

F(B) = Max(B) - Min(B)

Print the lowest possible value of the given function F.

Input format

The first line contains two positive integers N and M.

The second line contains N space-separated integers in the array A.

0 < N <= 100

1 < M <=N

0 < A[i] <= 100

Output format

A single number denoting the lowest value of the given function F.

Sample input 1

```
8 5

34 3 8 1 15 20 3
```

Sample output 1

3

Explanation

The given function F is minimized when the 5 elements chosen from the given array to form array B are 3, 4, 3, 1, 3

F(B) = Max(B) - Min(B) = 4 - 1 = 3

Sample input 2

```
8 2

34 3 8 1 15 20 3
```

Sample output 2

```
0
```

Explanation

We can form array B by choosing 2 elements 3, 3 from array A.

Then, F(B) = Max(B) - Min(B) = 3 - 3 = 0