# COCI '15 Contest 5 #3 Perica

**Time limit:** 0.6s **Memory limit:** 64M
Haskell: 0.75s

"I'm stopping by Žnidaršić's house, you play the piano, Perica."

"Ok, dad, I will!"

And so, Perica began playing the piano. His piano consists of $N$ keys. Each key has a value written on it, $a_i$. When Perica plays the piano, he presses exactly $K$ different keys at the same time. The piano is a bit strange because, after pressing $K$ keys at the same time, it will play only the key with the largest value. Perica is going to play each combination of $K$ keys on the piano and he wants to know the sum of values of the keys that will be played.

Help Perica determine the **remainder** of that number modulo $1\,000\,000\,007$.

## Input

The first line of input contains two integers $N$ and $K$ ($1 \leq N \leq 100\,000, 1 \leq K \leq 50$). The following line of input contains $N$ integers $a_i$ ($0 \leq a_i \leq 10^9$).

## Output

The first and only line of output must contain the required number from the task.

## Scoring

In test cases worth 40% of total points, it will additionally hold $1 \leq N \leq 1\,000$.

## Sample Input 1

```
5 3
2 4 2 3 4
```

## Sample Output 1

```
39
```

## Explanation for Sample Output 1

All selections of $K$ keys are: [2, 4, 2], [2, 4, 3], [2, 4, 4], [2, 2, 3], [2, 2, 4], [2, 3, 4], [4, 2, 3], [4, 2, 4], [4, 3, 4], [2, 3, 4].

## Sample Input 2

```
5 1
1 0 1 1 1
```

## Sample Output 2

```
4
```

## Sample Input 3

```
5 2
3 3 4 0 0
```

## Sample Output 3

```
31
```