



B: Meditation

Time limit: 1 second



Luna had a stressful day and she wants to do a meditation routine that relaxes her well. Luna's routines are more or less relaxing and to determine how relaxing a routine is, Luna computes its score: the higher the score, the more relaxing it is!

Luna has graded each of the n exercises with a positive integer and the score of a routine is simply the sum of the grades of its individual exercises. She gives you her list of graded exercises and asks you what is the maximal grade of a routine composed of k different exercises.

Input

The first line of the input contains two space-separated integers: n and k . The n following lines each contain a single integer, the $i + 1$ -th line containing the grade g_i of the i -th exercise.

Output

The output should contain a single line with a single integer: the maximal score of a routine composed of k different exercises.

Limits

- $1 \leq k \leq n \leq 100\,000$
- for all $1 \leq i \leq n$, we have $0 \leq g_i \leq 10\,000$

Sample Input

```
5 3
10
22
7
3
10
```

Sample Output

```
42
```

Sample Explanation

We select the exercises 1, 2 and 5 which gives a total score of $10 + 22 + 10 = 42$.