Greedy Florist

A group of k friends want to buy n flowers where each flower i has some base cost, c_i. The florist wants to maximize his number of *new* customers, so he increases the price of flowers purchased by repeat customers; more precisely, if a customer has already purchased x flowers, the price, p, for flower i is $p_i = (x + 1) \times c_i$.

Given n, k, and the base cost for each flower, find and print the minimum cost for the group to purchase n flowers.

Note: Flowers can be purchased in any order.

Input Format

The first line contains two space-separated integers describing the respective values of n and k. The second line contains n space-separated positive integers describing the respective values of $c_0, c_1, \ldots, c_{n-1}$.

Constraints

- $1 \le n, k \le 100$
- $1 \le c_i \le 10^6$
- $answer < 2^{31}$
- $0 \le i < n$

Output Format

Print the minimum cost to buy n flowers.

Sample Input 0

```
3 3
2 5 6
```

Sample Output 0

```
13
```

Explanation 0

There are $n = 3$ flowers with costs $c = [2, 5, 6]$ and $k = 3$ people in the group. If each person buys one flower, the total cost of prices paid is $2 + 5 + 6 = 13$ dollars. Thus, we print 13 as our answer.

Sample Input 1

```
3 2
2 5 6
```

Sample Output 1

```
15
```

Explanation 1

There are $n = 3$ flowers with costs $c = [2, 5, 6]$ and $k = 2$ people in the group. We can minimize the total

purchase cost like so:

1. The first person purchases 2 flowers in order of decreasing price; this means they buy the more expensive flower ($c_1 = 5$) first at price $p_1 = (0+1) \times 5 = 5$ dollars and the less expensive flower ($c_0 = 2$) second at price $p_0 = (1+1) \times 2 = 4$ dollars.

2. The second person buys the most expensive flower at price $p_2 = (0+1) \times 6 = 6$ dollars.

We then print the sum of these purchases, which is $5 + 4 + 6 = 15$, as our answer.