# **Flowers**



#### **Problem Statement**

You and your K-1 friends want to buy N flowers. Flower number i has cost  $c_i$ . Unfortunately the seller does not want just one customer to buy a lot of flowers, so he tries to change the price of flowers for customers who have already bought some flowers. More precisely, if a customer has already bought x flowers, he should pay  $(x+1)*c_i$  dollars to buy flower number i.

You and your K-1 friends want to buy all N flowers in such a way that you spend the least amount of money. You can buy the flowers in any order.

## Input:

The first line of input contains two integers N and K ( $K \le N$ ). The next line contains N space separated positive integers  $c_1, c_2, ..., c_N$ .

#### **Output:**

Print the minimum amount of money you (and your friends) have to pay in order to buy all N flowers.

#### **Constraint:**

 $1 \le N$ ,  $K \le 100$ Any  $c_i$  is not more than 1,000,000

#### Sample input #00

#### Sample output #00

13

3 3 2 5 6

### Sample input #01

3 2 2 5 6

#### Sample output #01

15

# **Explanation:**

Sample Case #00: In this example, all of you should buy one flower each. Hence, you'll have to pay 13 dollars.

Sample Case #01: Here one of the friend buys first two flowers in decreasing order of their price. So he will pay (0+1)\*5 + (1+1)\*2 = 9. And other friend will buy the costliest flower of cost 6. So total money need is 9+6=15.