Greedy Florist ★

Problem Submissions Leaderboard Editorial Topics

RATE THIS CHALLENGE

★ ★ ★ ★ ★

A group of friends want to buy a bouquet of flowers. The florist wants to maximize his number of new customers and the money he makes. To do this, he decides he'll multiply the price of each flower by the number of that customer's previously purchased flowers plus $\mathbf{1}$. The first flower will be original price, $(0+1) \times \textbf{original price}$, the next will be $(1+1) \times \textbf{original price}$ and so on.

Given the size of the group of friends, the number of flowers they want to purchase and the original prices of the flowers, determine the minimum cost to purchase all of the flowers. The number of flowers they want equals the length of the c array.

Example

$c = [1, 2, 3, 4]$

$k = 3$

The length of $c = 4$, so they want to buy 4 flowers total. Each will buy one of the flowers priced $[2, 3, 4]$ at the original price. Having each purchased $x = 1$ flower, the first flower in the list, $c[0]$, will now cost $(current\ purchase + previous\ purchases) \times c[0] = (1+1) \times 1 = 2$. The total cost is $2 + 3 + 4 + 2 = 11$.

Function Description

Complete the getMinimumCost function in the editor below.

getMinimumCost has the following parameter(s):

- int c[n]: the original price of each flower
- int k: the number of friends

Returns

- int: the minimum cost to purchase all flowers

Input Format

The first line contains two space-separated integers n and k, the number of flowers and the number of friends.

The second line contains n space-separated positive integers $c[i]$, the original price of each flower.

Constraints

- $1 \leq n, k \leq 100$
- $1 \leq c[i] \leq 10^6$
- $answer < 2^{31}$
- $0 \leq i < n$

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 $\mathbf{13}$ 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.

Sample Input 2

```
5 3
1 3 5 7 9
```

Sample Output 2

```
29
```

Explanation 2

The friends buy flowers for 9, 7 and 3, 5 and 1 for a cost of $9 + 7 + 3 * (1 + 1) + 5 + 1 * (1 + 1) = 29$.

Change Theme Language C#

```
using System.CodeDom.Compiler;
using System.Collections.Generic;
using System.Collections;
using System.ComponentModel;
using System.Diagnostics.CodeAnalysis;
using System.Globalization;
using System.IO;
using System.Linq;
using System.Reflection;
using System.Runtime.Serialization;
using System.Text.RegularExpressions;
using System.Text;
using System;

class Solution {

    // Complete the getMinimumCost function below.
    static int getMinimumCost(int k, int[] c) {

        var result = 0;
        //sort the array
```

```
            Array.Sort(c);
            var l = c.Length;

            //if people are equal to flowers then sum all the elements in the array
            if(k == l)
            {
```

Line: 87 Col: 1

Upload Code as File | Test against custom input | Run Code | Submit Code