



Greedy Florist

by HackerRank

Problem

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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, \dots, c_{n-1} .

Constraints

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

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.

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 Submissions: [25558](#)

Max Score: 35



Difficulty: Medium




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Java 7   

```

1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     static int getMinimumCost(int n, int k, int[] c){
10         // Complete this function
11     }
12
13     public static void main(String[] args) {
14         Scanner in = new Scanner(System.in);
15         int n = in.nextInt();
16         int k = in.nextInt();
17         int[] c = new int[n];
18         for(int c_i=0; c_i < n; c_i++){
19             c[c_i] = in.nextInt();
20         }
21         int minimumCost = getMinimumCost(n, k, c);
22         System.out.println(minimumCost);
23     }
24 }
25

```

Line: 1 Col: 1

 [Upload Code as File](#)
☐ Test against custom input

Run Code

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