1. LALU wanted to purchase a laptop so he went to a nearby sale.There were ***n***Laptops at a sale. Laptop with index ***i***costs ***ai*** rupees. Some Laptops have a negative price — their owners are ready to pay LALU if he buys their useless Laptop. LALU can buy any Laptop he wants. Though he's very strong, he can carry at most ***m*** Laptops, and he has no desire to go to the sale for the second time. Please, help LALU find out the maximum sum of money that he can earn.

**Input:**

First line of the input contains**T** denoting the number of test cases.Each test case has 2 lines :

* first line has two spaced integers n m.
* second line has n integers [a0...ai...an-1].

**Output:**

The maximum sum of money that LALU can earn, given that he can carry at most *m* Laptops.

**Constraints:**

1≤**T**≤10

1≤**n,m**≤100

-1000≤**ai**≤1000

**Sample Input:**

1

 5 3

-6 0 35 -2 4

**Sample Output:**

8

**Explanation:**

LALU takes the laptops with -6 and -2 and thus earns 8 rupees.

1. In a candy store there are **N** different types of candies available  and the prices of all the N different types of candies are provided to you.  
   You are now provided with an attractive offer.  
   You can buy a single candy from the store and get atmost **K** other candies ( all are different types ) for free.  
   Now you have to answer two questions. Firstly, you have to tell what is the**minimum amount of money** you have to spend to buy all the**N**different candies. Secondly, you have to tell what is the **maximum amount of money** you have to spend to buy all the N different candies.  
   In both the cases you must utilize the offer i.e. you buy one candy and get**K**other candies for free.

**Input**   
The first line of the input contains **T** the number of test cases. Each test case consists of two lines. The first line of each test case contains the values of **N** and **K** as described above.  Then in the next line **N** integers follow denoting the price of each of the**N** different candies.

**Output**  
For each test case output a single line containing **2** space separated integers , the first denoting the **minimum amount of money required to be spent**and the second denoting the **maximum amount of money to be spent**.  
Remember to output the answer of each test case in a new line.  
  
**Constraints**        
1 <= **T**<= 50  
1 <= **N**<= 1000  
 0 <= **K** <= N-1  
1 <= **Ai** <= 100

**Expected Time Complexity :**O(nlogn)

**Example:**  
**Input**     
 1  
 4  2  
 3 2 1 4

**Output**  
3 7

**Explanation**  
As according to the offer if you but one candy you can take atmost two more for free.  
So in the first case you buy the candy which costs 1 and take candies worth 3 and 4 for free, also you buy candy worth 2 as well.  
So **min cost** = 1+2 =3.  
In the second case I buy the candy which costs 4 and take candies worth 1 and 2 for free, also I  buy candy worth 3 as well.  
So **max cost** = 3+4 =7.

1. Suppose you are car driver and you have to drive a car on a track divided into "N" no. of sub-tracks. You are also given the value of "K" i.e. the total kilometers a car can drive on each sub-track. If the car can't cover a sub-track, you can add any unit of Petrol in it. With each unit of petrol added, the total kilometers your car can travel will increase by one unit .  
     
   **Input:**  
   The first line of input contains an integer T denoting the no of test cases. Then T test cases follow. Each test case contains two space separated integers N and K. The second line of each test case contains N space separated integers (A[])  denoting the distance of each N sub-tracks.

**Output:**  
For each test case in a new line you have to print out the minimum unit of Petrol your car require to cover all the sub-tracks. If no extra unit of petrol is required, print -1.  
  
**Constraints:**  
1<=T<=100  
1<=N,K<=200  
1<=A[]<=1000  
  
**Example:  
Input:**  
2  
5 7  
2 5 4 5 2  
5 4  
1 6 3 5 2  
**Output:**  
-1  
2  
  
**Explanation:**  
In Case 2, you are given 5 sub-tracks with different kilometers. Your car can travel 4 km on each sub-track. So, when you come on sub-track 2nd you have to cover 6 km of distance, so you need to have 2 unit of petrol more to cover the distance, for 3rd sub-track, now your car can travel 6 kilometers, so no problem and so on.

1. Shil got an array of N integers as a present on his birthday. But he didn't liked it. Shil wants to make this array beautiful. Shil considers an array A1,A2,A3 . . . AN beautiful if A1 > AN. Inorder to make it beautiful Shil can swap any two numbers in the array. Also Shil can perform this operation any number of times on any adjacent pairs of integers in the array A.Find the number of ways in which Shil can make this array beautiful.Two ways are considered same if resulting array after making all the swaps have same A1 and AN.

Input

First line of input contains an integer N denoting the number of elements in an array A. Next line of input contains N space separated integers denoting A1,A2,A3 . . . AN respectively.

Output

Number of ways in which you can make given array beautiful.

Constraints

1 ≤ N ≤ 106  
1 ≤ Ai ≤ 106