Reduction Game

Problem Statement

You are playing a game called the **Reduction Game**. This game is played on an array a with n integers. You also have an integer k.

The following operation will be made repeatedly on this array:

- Choose any two elements a_i and a_j such that $i \neq j$, and $\min(a_i, a_j) > k$.
- Decrease both a_i and a_j by 1.

This operation should be applied to the array if possible. If there are multiple valid choices of a_i and a_j, you can choose which pairs to reduce first. The goal is to maximize the sum of the elements in the array at the end. Your task is to find the maximum possible sum of the final array.

Input

- The first line of input contains an integer T denoting the number of test cases.
- Each test case consists of:
  - The first line with two integers n and k denoting the number of elements in the array a and the threshold k.
  - The second line with n space-separated integers representing the array a.

Output

For each test case, output a single integer on a new line, corresponding to the maximum possible sum of the final array.

Constraints

- $1 \leq T \leq 5000$
- $1 \leq n \leq 50$
- $1 \leq a_i, k \leq 50000$

Example

Input

```
3
2 1
1 2
2 1
2 2
3 1
2 3 2
```

Output

```
3
2
5
```

Explanation

- **Example 1:** The initial array is $[1, 2]$. In this case, there are no two elements greater than 1. So, no operations can be performed, and this is the only final array possible. The sum of this array is 3, which is the answer.
- **Example 2:** The initial array is $[2, 2]$. You can decrease both elements by 1 to get $[1, 1]$. This is the only valid pair available, so you are forced to reduce this pair. After this, no more operations are possible. The final array is $[1, 1]$, and its sum is 2.
- **Example 3:** The initial array is $[2, 3, 2]$.
  - Option 1: Reduce the first two elements to get $[1, 2, 2]$. Then, reduce the last two elements to get $[1, 1, 1]$. This final array has a sum of 3.
  - Option 2: Reduce the first and third elements to get $[1, 3, 1]$. No further reductions are possible, resulting in a final array with a sum of 5, which is the maximum achievable.

  Therefore, the answer is 5.