

Problem WORLDPEACE: WorldPeace

You have decided to organize a grassroots campaign for world peace. Your plan is to assign ordinary citizens into groups of k pen pals such that each group contains citizens from k different countries. People in each group will exchange letters in an effort to increase their understanding of each other's cultures. Given k and the populations of the participating countries, you must determine the maximum number of groups that can be formed.

Note that no individual may be assigned to more than one group, and that some individuals may be left without a group.

Input

The input consists of multiple testcases. The number of testcases is given on the first line. There are at most 10 testcases. For each testcase, the number k (the group size) and the number of countries are given on one line. The second line of each testcase contains the population of the corresponding country, separated by a single space.

k is between 2 and 20, inclusive.

There are between k and 50 countries, inclusive.

Each country has between 1 and 1,000,000,000 (one billion), inclusive, people.

Output

Write the maximum number of groups on a single line.

Sample Input 1

```
3
4 5
4 4 4 4 4

5 6
1 2 3 4 5 6

7 17
96 17 32 138 112 50 7 19 412 23 14 50 47 343 427 22 39
```

Sample Output 1

```
5
3
166
```