

# Ada and Fence

Ada the Ladybug owns a circular land. She wants to enclose it with fence. Anyway since nobody sells round planks, she has decided to fence it to shape of regular **k-gon**. Problem is, that there is only limited number of places (on circle) where pillars can be built. Ada has asked you, to find out the number of different regular **k-gon** shaped fences which can be built on her land (two **k-gon**'s are considered different if they share NO common pillar).

## Input

The first line will contain **T**, the number of test-cases.

Then **T** test-cases follow, each beginning with two integers  $3 \leq K \leq N \leq 10^5$ ,  $3 \leq K \leq 100$ , the number of places where pillar can be built and number of edges of regular **k-gon**

Afterward a line with **N** integers  $1 \leq D_i \leq 100$  follow, meaning the length of arc between two consecutive points where pillar can be built. The sum of all lengths will be divisible by **K**.

Sum of **N** over all test-cases won't exceed  $2 \cdot 10^6$

## Output

For each test-case print the number of different regular **k-gon** shaped fences which can be built.

## Example Input

```
3
5 3
1 2 3 2 1
15 4
1 2 2 2 1 2 2 1 1 2 1 2 1 2 2
10 5
1 1 1 1 1 1 1 1 1 1
```

## Example Output

```
1
1
2
```