



USACO 2019 DECEMBER CONTEST, BRONZE PROBLEM 1. COW GYMNASTICS

[Return to Problem List](#)

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English (en)

In order to improve their physical fitness, the cows have taken up gymnastics! Farmer John designates his favorite cow Bessie to coach the N other cows and to assess their progress as they learn various gymnastic skills.

In each of K practice sessions ($1 \leq K \leq 10$), Bessie ranks the N cows according to their performance ($1 \leq N \leq 20$). Afterward, she is curious about the consistency in these rankings. A pair of two distinct cows is *consistent* if one cow did better than the other one in every practice session.

Help Bessie compute the total number of consistent pairs.

INPUT FORMAT (file `gymnastics.in`):

The first line of the input file contains two positive integers K and N . The next K lines will each contain the integers $1 \dots N$ in some order, indicating the rankings of the cows (cows are identified by the numbers $1 \dots N$). If A appears before B in one of these lines, that means cow A did better than cow B .

OUTPUT FORMAT (file `gymnastics.out`):

Output, on a single line, the number of consistent pairs.

SAMPLE INPUT:

```
3 4
4 1 2 3
4 1 3 2
4 2 1 3
```

SAMPLE OUTPUT:

```
4
```

The consistent pairs of cows are (1, 4), (2, 4), (3, 4), and (1, 3).

Problem credits: Nick Wu

Contest has ended. No further submissions allowed.