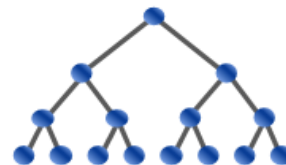


# USA Computing Olympiad

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Contest has ended.

## USACO 2019 DECEMBER CONTEST, BRONZE PROBLEM 1. COW GYMNASTICS

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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.