Protected Wall Sequences

There are N guarding posts on the Great Wall of China. However, there are only M posts where there are guards. We call a wall between two posts protected if the posts on each end have guards. A protected wall sequence is a non-expandable sequence of protected walls.

Write a program that gives the count of protected wall sequences.

Input

The first line of the *standard input* contains the count of posts ($1 \le N \le 100$) and the count of posts with guards ($1 \le M \le 100$) separated by a space. The next M lines contain the ID of a post where there are guards. There is at most one guard on each post.

Output

The first line of the *standard output* should contain the count of protected wall sequences.

Example

Input	*Output*
15 9 6 3 12 11 4 5 8 15 14	3

Limits

Time limit: 0.1 second

Memory limit: 32 MB

Evaluation: In 40% of tests, the count of data is ≤ 20