foreveralone

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

You are Isafan Oftinder, and having survived a year and a half in IIIT, you and your $n-1$ friends deem yourselves too lonely, and you decide to try out a popular dating application. After checking out p other users (none of which include your friends), there are a total of q mutual right-swipes (i.e matches) that occur. Given this information, and the fact that you can only be with one person, how many pairs can be properly matched in the best case?

Input

The first line contains three space separated integers: n, p and q ($1 \leq n, p \leq 2500$, $1 \leq q \leq 20000$). Then q lines follow, which contain two space separated integers x and y, denoting that user x has matched with user y ($1 \leq x \leq n$, $1 \leq y \leq p$)

Output

A single integer, denoting the maximal number of pairs as required.

Example

standard input	standard output
5 5 4 1 2 2 3 3 1 5 2	3