

# Villages by the River

In a far away country there is a wide river,  $N$  villages on the left and  $N$  villages on the right side of this river (denoted by  $1..N$  on each side). There are also  $M$  small ships, each of them connecting one village from the left and one village from the right side (in both ways).

You are to organize a film festival in four of these villages: two from the left and two from the right side. Each two of these four villages must be connected by a ship (directly) if they belong to opposite sides of the river.

Help yourself to choose these four villages and first find out; in how many ways can you choose them?

## Input

In the first line there are integers  $N \leq 1000$  and  $M \leq N^2$ .

In the next  $M$  lines there are two integers from the interval  $[1, N]$  representing the village from the left and the village from the right side connected by this ship.

## Output

Print the required number of ways to choose villages for the festival.

## Example

### Input:

```
3 5
1 1
1 2
1 3
2 2
2 3
```

### Output:

```
1
```

(the only possibility is to choose the villages 1, 2 from the left and 2, 3 from the right side)