Even Tree

Problem Statement

You are given a tree (a simple connected graph with no cycles). You have to remove as *many edges from the tree as possible* to obtain a forest with the condition that : *Each connected component of the forest should contain an even number of vertices.*

To accomplish this, you will remove some edges from the tree. Find out the number of removed edges.

Input Format

The first line of input contains two integers N and M. N is the number of vertices and M is the number of edges.
The next M lines contain two integers ui and vi which specifies an edge of the tree. (1-based index)

Output Format

Print the answer, a single integer.

Constraints

2 <= N <= 100.

Note: The tree in the input will be such that it can always be decomposed into components containing even number of nodes.

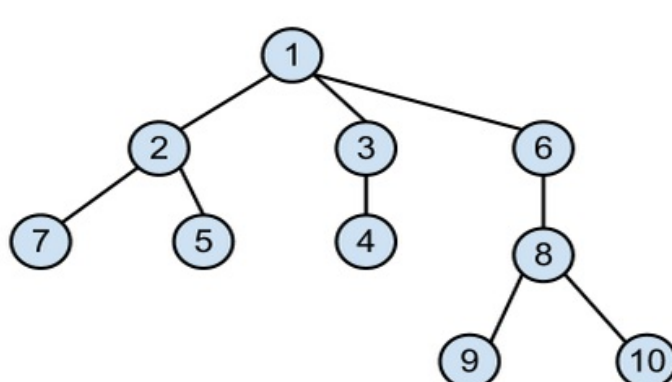## Sample Input

```
10 9
2 1
3 1
4 3
5 2
6 1
7 2
8 6
9 8
10 8
```

Sample Output

```
2
```

Explanation

On removing edges (1, 3) and (1, 6), we can get the desired result.

Original tree:

Decomposed tree: