Even Tree ☆

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You are given a tree (a simple connected graph with no cycles).

Find the maximum number of edges you can remove from the tree to get a forest such that each connected component of the forest contains an even number of nodes.

Input Format

The first line of input contains two integers n and m, the number of nodes and edges.

The next m lines contain two integers u_i and v_i which specify nodes connected by an edge of the tree. The root of the tree is node 1.

Constraints

- $2 \leq n \leq 100$
- $n \in \mathbb{Z}^{+}_{\text{even}}$

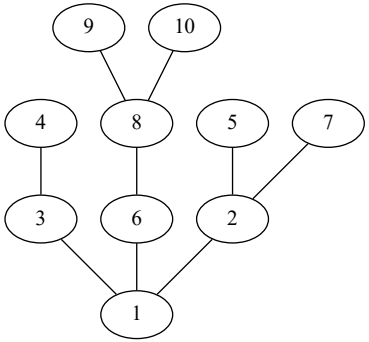
Note: The tree in the input will be such that it can always be decomposed into components containing an even number of nodes. $\mathbb{Z}^{+}_{\text{even}}$ is the set of positive even integers.

Output Format

Print the number of removed edges.

Sample Input 1

Copy Download



Undirected Graph: tree

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

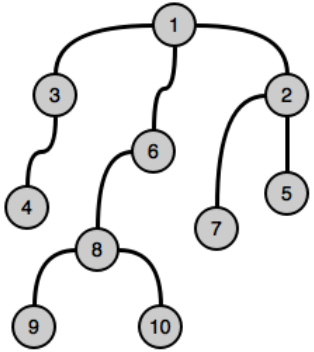
Sample Output 1

```
2
```

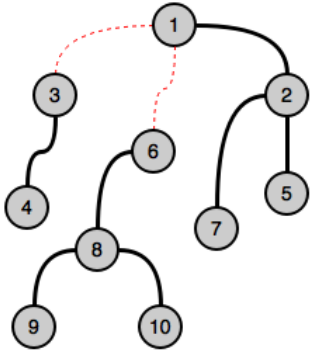
Explanation 1

Remove edges $(1, 3)$ and $(1, 6)$ to get the desired result.

Original tree:



Decomposed tree:



No more edges can be removed.