

# 2077. Paths in Maze That Lead to Same Room

## Description

A maze consists of `n` rooms numbered from `1` to `n`, and some rooms are connected by corridors. You are given a 2D integer array `corridors` where `corridors[i] = [room1i, room2i]` indicates that there is a corridor connecting `room1i` and `room2i`, allowing a person in the maze to go from `room1i` to `room2i` and vice versa.

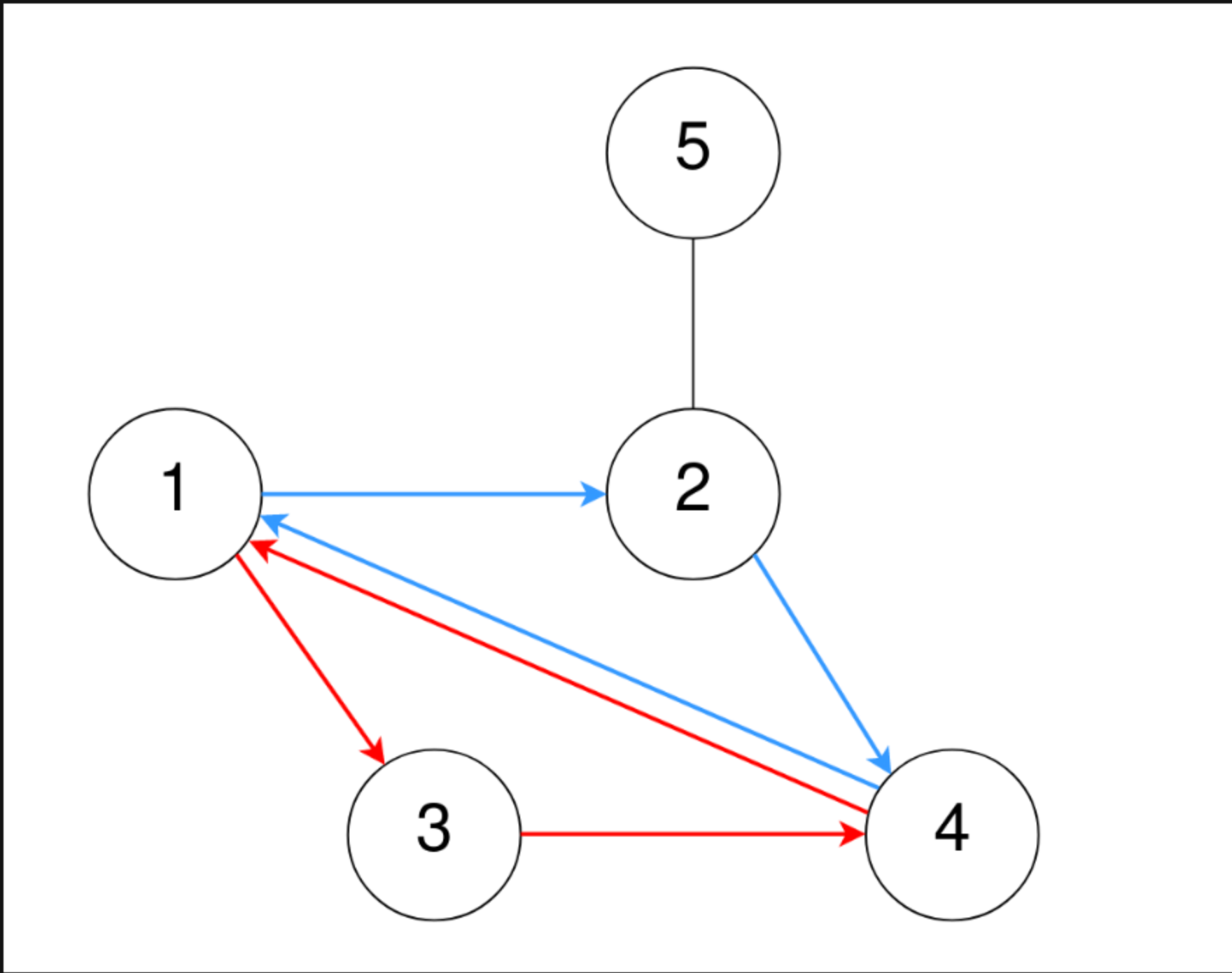
The designer of the maze wants to know how confusing the maze is. The **confusion score** of the maze is the number of different cycles of **length 3**.

- For example, `1 → 2 → 3 → 1` is a cycle of length 3, but `1 → 2 → 3 → 4` and `1 → 2 → 3 → 2 → 1` are not.

Two cycles are considered to be **different** if one or more of the rooms visited in the first cycle is **not** in the second cycle.

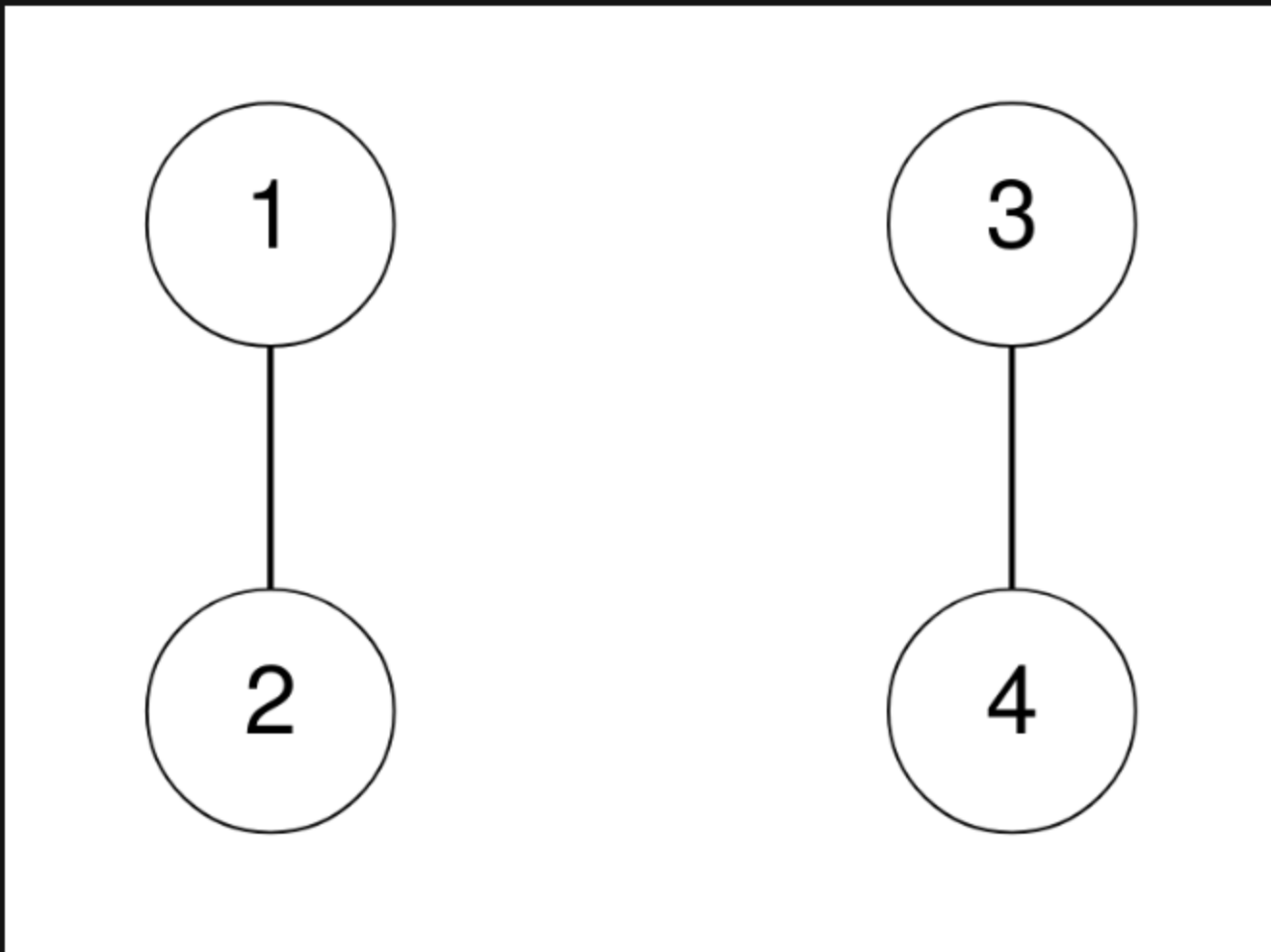
Return *the confusion score of the maze*.

### Example 1:



**Input:** `n = 5, corridors = [[1,2],[5,2],[4,1],[2,4],[3,1],[3,4]]`  
**Output:** `2`  
**Explanation:**  
One cycle of length 3 is `4 → 1 → 3 → 4`, denoted in red.  
Note that this is the same cycle as `3 → 4 → 1 → 3` or `1 → 3 → 4 → 1` because the rooms are the same.  
Another cycle of length 3 is `1 → 2 → 4 → 1`, denoted in blue.  
Thus, there are two different cycles of length 3.

### Example 2:



**Input:** `n = 4, corridors = [[1,2],[3,4]]`  
**Output:** `0`  
**Explanation:**  
There are no cycles of length 3.

### Constraints:

- `2 <= n <= 1000`
- `1 <= corridors.length <= 5 * 104`
- `corridors[i].length == 2`
- `1 <= room1i, room2i <= n`
- `room1i != room2i`
- There are no duplicate corridors.

