Graph Contest 1 P3 - Counting Cycles

Time limit: 1.0s **Memory limit:** 16M

Given a graph as an adjacency matrix, calculate the total number of distinct simple cycles.
Remember that $A \to B \to C \to A$ is not the same as $A \to C \to B \to A$, and that $A \to B \to A$ is the same as $B \to A \to B$.

Input Specification

$N \leq 10$, the number of vertices.
The adjacency matrix - N rows of N numbers.
The first row represents the first vertex, and similarly the last row represents the last vertex.

Output Specification

The number of distinct **simple** cycles of any length.

Sample Input

```
3
0 1 0
0 0 1
1 0 0
```

Sample Output

```
1
```