

Result:

I assume in a directed graph, if A can reach B and B can reach A, then the in-degree, out-degree and total degree of A or B is 1.

Test Case 1

```
The graph is not complete
The graph is connected
Vertex 1's total degree is 2
Vertex 1's in-degree is 2
Vertex 1's out-degree is 2
Vertex 2's total degree is 1
Vertex 2's in-degree is 1
Vertex 2's out-degree is 1
Vertex 3's total degree is 1
Vertex 3's in-degree is 1
Vertex 3's out-degree is 1
Vertex 4's total degree is 3
Vertex 4's in-degree is 3
Vertex 4's out-degree is 3
Vertex 5's total degree is 1
Vertex 5's in-degree is 1
Vertex 5's out-degree is 1
```

Test Case 2

```
The graph is complete
The graph is connected
Vertex 1's total degree is 3
Vertex 1's in-degree is 3
Vertex 1's out-degree is 3
Vertex 2's total degree is 3
Vertex 2's in-degree is 3
Vertex 2's out-degree is 3
Vertex 3's total degree is 3
Vertex 3's in-degree is 3
Vertex 3's out-degree is 3
Vertex 4's total degree is 3
Vertex 4's in-degree is 3
Vertex 4's out-degree is 3
```

Test Case 3

```
The graph is not complete
The graph is not connected
Vertex 1's total degree is 3
Vertex 1's in-degree is 3
Vertex 1's out-degree is 3
Vertex 2's total degree is 3
Vertex 2's in-degree is 3
Vertex 2's out-degree is 3
Vertex 3's total degree is 3
Vertex 3's in-degree is 3
Vertex 3's out-degree is 3
Vertex 4's total degree is 3
Vertex 4's in-degree is 3
Vertex 4's out-degree is 3
Vertex 5's total degree is 0
Vertex 5's in-degree is 0
Vertex 5's out-degree is 0
```

Test Case 4

```
The graph is not complete
The graph is not connected
Vertex 1's total degree is 1
Vertex 1's in-degree is 1
Vertex 1's out-degree is 0
Vertex 2's total degree is 4
Vertex 2's in-degree is 3
Vertex 2's out-degree is 1
Vertex 3's total degree is 3
Vertex 3's in-degree is 2
Vertex 3's out-degree is 2
Vertex 4's total degree is 3
Vertex 4's in-degree is 2
Vertex 4's out-degree is 3
Vertex 5's total degree is 3
Vertex 5's in-degree is 1
Vertex 5's out-degree is 3
```