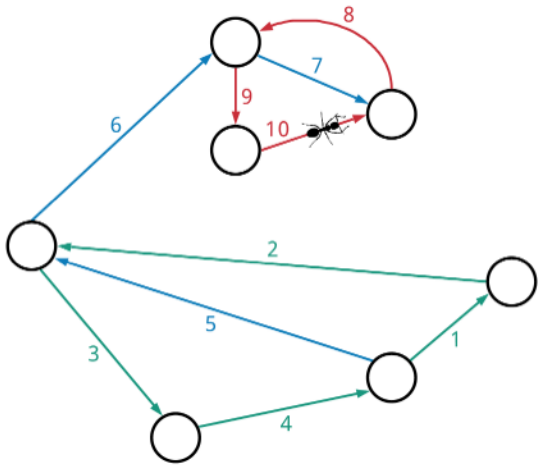
3G Find an Eulerian Path in a Graph

Eulerian Path Problem
Find an Eulerian path in a graph.

Input: A directed graph containing an Eulerian path.
Output: An Eulerian path in this graph.



Formatting

Input: An adjacency list representing a directed graph containing an Eulerian path.
Output: A space-separated list of integers representing an Eulerian path in the graph.

Constraints

- The number of nodes in the graph will be between 1 and 10^4.
- The number of edges in the graph will be between 1 and 10^4.
- All nodes in the graph will be labeled with integers.

Test Cases

Case 1

Description: The sample dataset is not actually run on your code.

Input:

```
0:  2
1:  3
2:  1
3:  0 4
6:  3 7
7:  8
8:  9
9:  6
```

Output:

```
6 7 8 9 6 3 0 2 1 3 4
```

Case 2

Description: The sample dataset is not actually run on your code.

Input:

```
0:  1
1:  2
2:  3
```

Output:

```
0 1 2 3
```

Case 3

Description: The sample dataset is not actually run on your code.

Input:

```
0:  1
1:  2 5
2:  3
3:  4
4:  1
```

Output:

```
0 1 2 3 4 1 5
```

Case 4

Description: The sample dataset is not actually run on your code.

Input:

```
2:  1
1:  3 4 0
3:  1 4
4:  3 1
```

Output:

```
2 1 3 1 4 3 4 1 0
```

Case 5

Description: The sample dataset is not actually run on your code.

Input:

```
0:  1
1:  14 17
14:  2 3 4
2:  1
3:  14
4:  5
5:  14
```

Output:

```
0 1 14 3 14 4 5 14 2 1 17
```

Case 6

Description: The sample dataset is not actually run on your code.

Input:

```
2:  3 5
3:  4
4:  2
5:  6
6:  2
1:  2 0
0:  1
```

Output:

```
1 0 1 2 3 4 2 5 6 2
```

Case 7

Description: A larger dataset of the same size as that provided by the randomized autograder. Check input/output folders for this dataset.