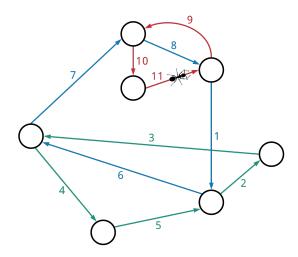
# 3F Find an Eulerian Cycle in a Graph

# **Eulerian Cycle Problem**

Find an Eulerian cycle in a graph.

**Input:** An Eulerian directed graph. **Output:** An Eulerian cycle in this graph.



# **Formatting**

Input: An adjacency list representing an Eulerian directed graph.

**Output:** A space-separated list of integers representing an Eulerian cycle in the directed 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: 3
- 1: 0
- 2: 1 6
- 3**:** 2
- 4: 2
- 5: 4
- 6**:** 5 8
- 7: 9
- 8: 7
- 9: 6

# **Output:**

3 2 6 8 7 9 6 5 4 2 1 0 3

#### Case 2

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

# Input:

- 0: 1
- 1: 2
- 2: 0

# **Output:**

0 1 2 0

#### Case 3

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

# Input:

- 0: 3 1
- 1: 2
- 2: 0
- 3: 0

#### **Output:**

0 3 0 1 2 0

#### Case 4

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

# Input:

- 0: 1
- 1: 2 3
- 2: 0
- 3: 4
- 4: 1

# **Output:**

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

#### Case 5

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

# Input:

- 1: 2
- 2: 1 2

# Output:

2 2 1 2

# Case 6

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

# Input:

- 1: 10
- 10: 2 3 4
- 2: 1
- 3**:** 10
- 4: 5
- 5: 10

# **Output:**

```
1 10 4 5 10 3 10 2 1
```

# Case 7

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

# Input:

- 0: 1 2 3 4
- 1: 0 2 3 4
- 2: 0 1 3 4
- 3: 0 1 2 4
- 4: 0 1 2 3

# Output:

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

# Case 8

**Description:** A larger dataset of the same size as that provided by the randomized autograder.