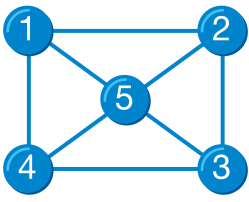


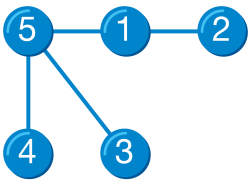
4. Connected Components
100% (10/10)

✓ Congratulations! You passed!

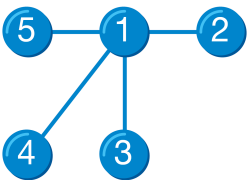
1. You are given an undirected graph with 5 nodes and 8 edges. The nodes are labeled 1 through 5. The edges are (1,2), (1,4), (2,3), (3,4), (1,5), (2,5), (3,5), and (4,5). The graph is shown below.



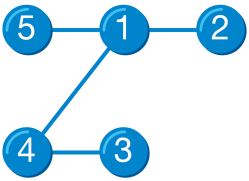
2. You are given the same graph as in the previous question. The nodes are labeled 1 through 5. The edges are (1,2), (1,4), (2,3), (3,4), (1,5), (2,5), (3,5), and (4,5). The graph is shown below.



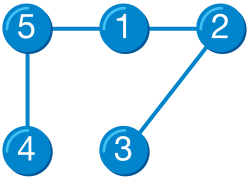
3. You are given the same graph as in the previous question. The nodes are labeled 1 through 5. The edges are (1,2), (1,4), (2,3), (3,4), (1,5), (2,5), (3,5), and (4,5). The graph is shown below.



4. You are given the same graph as in the previous question. The nodes are labeled 1 through 5. The edges are (1,2), (1,4), (2,3), (3,4), (1,5), (2,5), (3,5), and (4,5). The graph is shown below.



5. You are given the same graph as in the previous question. The nodes are labeled 1 through 5. The edges are (1,2), (1,4), (2,3), (3,4), (1,5), (2,5), (3,5), and (4,5). The graph is shown below.



small-star operation

$\begin{pmatrix} 1, 5 \\ 1, 2 \\ 3, 5 \\ 4, 5 \end{pmatrix} \rightarrow \begin{pmatrix} 5, 1 \\ 2, 1 \\ 5, 3 \\ 5, 4 \end{pmatrix} \rightarrow \begin{pmatrix} 5, 1, 3, 4 \\ 2, 1, 1 \end{pmatrix} \rightarrow \begin{pmatrix} 1, 1 \\ 1, 3 \\ 1, 4 \\ 1, 5 \\ 1, 1 \\ 2, 1 \end{pmatrix}$

4. Download Composites

5. Download Composites

6. Download Composites

large-star operation

$\begin{pmatrix} (1, 5) \\ (1, 2) \\ (3, 5) \\ (4, 5) \end{pmatrix} \rightarrow \begin{pmatrix} (1, 5) \\ (5, 1) \\ (1, 2) \\ (2, 1) \\ (3, 5) \\ (5, 3) \\ (4, 5) \\ (5, 4) \end{pmatrix} \rightarrow \begin{pmatrix} (1, \{2, 5\}) \\ (2, \{1\}) \\ (3, \{5\}) \\ (4, \{5\}) \\ (5, \{1, 3, 4\}) \end{pmatrix} \rightarrow \begin{pmatrix} (4, 5) \\ (5, 1) \\ (2, 1) \\ (3, 5) \end{pmatrix}$

7. Download Composites