Started on	Wednesday, 5 April 2023, 12:34
State	Finished
Completed on	Wednesday, 5 April 2023, 12:34
Time taken	11 secs
Marks	0.00/2.00
Grade	**0.00** out of 10.00 (**0**%)

Information

Week 12: MST

Following chapters from SW for this week are covered in this quiz: SW 4.3

Question 1

Not answered

Marked out of 1.00

These algorithms can produce a Spanning Tree. Which of these algorithms will *always* produce a *Minimum* Spanning Tree (MST)

Select one or more:

- Dijkstra's (single-source shortest-paths) algorithm
- Prim's algorithm
- Kruskal's algorithm
- Depth-First Search (DFS)
- Breath-First Search (BFS)

Your answer is incorrect.

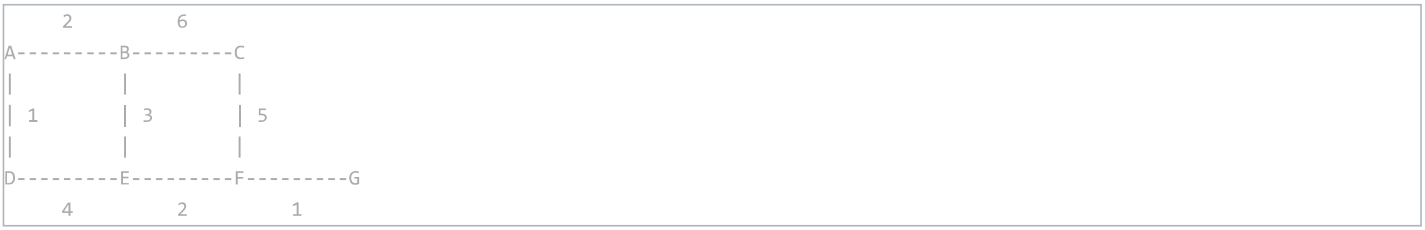
The correct answers are: Prim's algorithm, Kruskal's algorithm

Question 2

Not answered

Marked out of 1.00

Consider the following undirected, weighted graph, consisting of vertices labelled A through G:



All of these algorithms creates some subgraph S. Match an algorithm to one sequence of edges, as they could have been added to S during the algorithm.

For algorithms that requires a starting vertex, assume this vertex is the leftmost letter of the first edge in the sequences below.

D-A, D-E, A-B, B-C, E-F, F-G

A-D, A-B, B-E, E-F, F-G, F-C

A-D, D-E, E-F, F-G, F-C, C-B

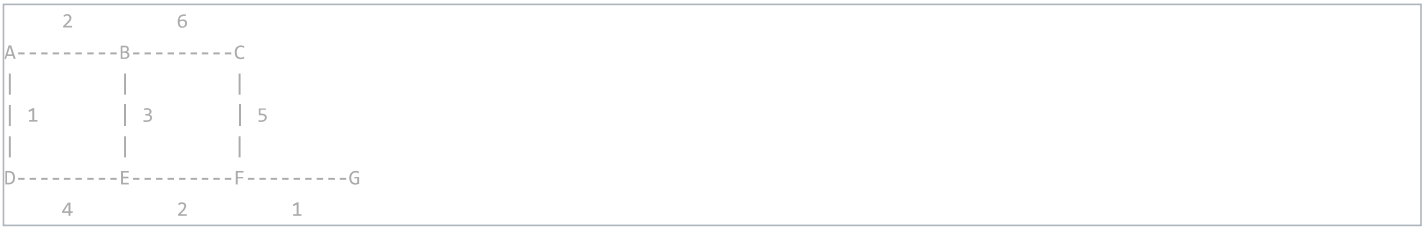
A-D, F-G, A-B, E-F, B-E, C-F

B-A, B-E, B-C, A-D, E-F, F-G

Breadth-first search | Prim's algorithm | Dijkstra's algorithm | Kruskal's algorithm | Depth-first search

Your answer is incorrect.

The correct answer is:
Consider the following undirected, weighted graph, consisting of vertices labelled A through G:



All of these algorithms creates some subgraph S. Match an algorithm to one sequence of edges, as they could have been added to S during the algorithm.

For algorithms that requires a starting vertex, assume this vertex is the leftmost letter of the first edge in the sequences below.

D-A, D-E, A-B, B-C, E-F, F-G [Dijkstra's algorithm]

A-D, A-B, B-E, E-F, F-G, F-C [Prim's algorithm]

A-D, D-E, E-F, F-G, F-C, C-B [Depth-first search]

A-D, F-G, A-B, E-F, B-E, C-F [Kruskal's algorithm]

B-A, B-E, B-C, A-D, E-F, F-G [Breadth-first search]