8.25. Discussion Questions

1. Draw the graph corresponding to the following adjacency matrix.







	А	В	С	D	E	F
А		7	5			1
В	2			7	3	
С		2				8
D	1				2	4
E	6			5		
F		1			8	

2. Draw the graph corresponding to the following list of edges.

from		to	cost
	1	2	10
	1	3	15
	1	6	5
	2	3	7
	3	4	7
	3	6	10
	4	5	7
	6	4	5
	5	6	13

(K3, Ignoring the weights, perform a breadth first search on the graph from the previous questiones.html)

Run

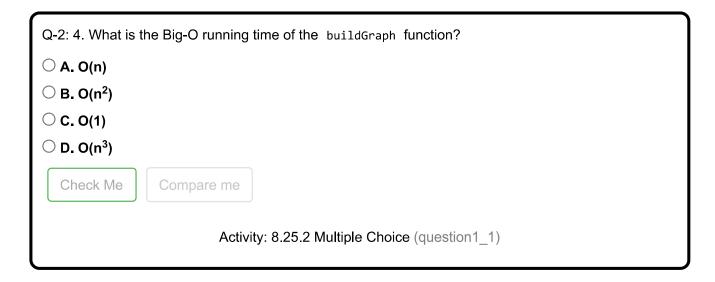
Load History

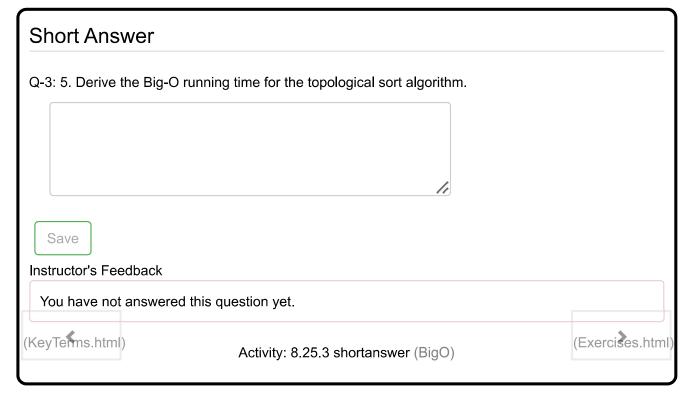
Show CodeLens

Activity: 8.25.1 ActiveCode (breadthfirst)

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2





Short Answer	
Q-4: 6. Derive the Big-O running time for the strongly connected components algorithm.	
Instructor's Feedback	
You have not answered this question yet.	
Activity: 8.25.4 shortanswer (BigOTwo)	

- 7. Show each step in applying Dijkstra's algorithm to the graph shown above.
- 8. Using Prim's algorithm, find the minimum weight spanning tree for the graph shown above.



- 9. Draw a dependency graph illustrating the steps needed to send an email. Perform a topological sort on your graph.
- 10. Derive an expression for the base of the exponent used in expressing the running time of the knights tour.

 (Key Temps, ntml)

Instructor's Feedback You have not answered this question yet. Activity: 8.25.6 shortanswer (DFS) Q-7: 12. What is the Big-O running time for Prim's minimum spanning tree algorithm? A. O(1) B. O(n³) C. O(n) D. O(n²) Check Me Compare me Activity: 8.25.7 Multiple Choice (question1_2) You have attempted 1 of 8 activities on this page	Save structor's Feedback You have not answered this question yet. Activity: 8.25.6 shortanswer (DFS) -7: 12. What is the Big-O running time for Prim's minimum panning tree algorithm? P.A. O(1) D. O(n³) D. O(n°) Check Me Compare me Activity: 8.25.7 Multiple Choice (question1_2) You have attempted 1 of 8 activities on this page	Q-6: 11. Explain why the general DFS algorithm is not sthe knights tour problem.	suitable for solving
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