

# 15 Questions – Graphs, Paths, Circuits

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# Question 1



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- An Euler Path exists **only if** the graph has...



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# Question 2

- If every vertex has an odd number of edges...



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# Question 3



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- True or False: A graph with all even vertices contains an Euler Path



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# Question 4



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Question Table

- True or False: An Euler Circuit must pass through every edge of the graph exactly once



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# Question 5



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Question Table

- True or False: A complete graph with 3 vertices will have exactly 6 different Hamilton Circuits



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# Question 6



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Question Table

- True or False: A Hamilton circuit must start and end at the same vertex



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# Question 7



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Question Table

- A graph with 2932 even vertices and no odd vertices is a(n)...



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# Question 8



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- True or False: The Optimal Hamilton circuit is the shortest/cheapest circuit in a graph



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# Question 9



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- True or False: Removing a bridge will cause a graph to be disconnected



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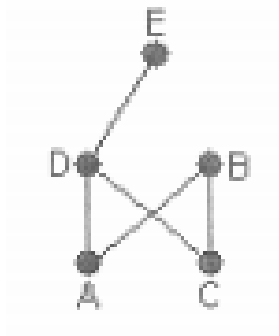


# Question 10



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- Does this graph contain an Euler Circuit, Euler Path or neither?



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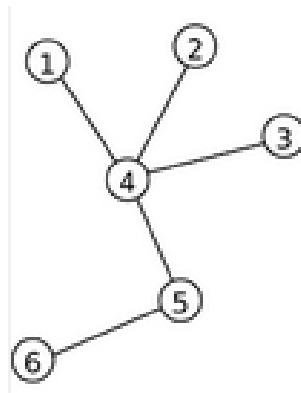


# Question 11



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- How many bridges does this graph contain?



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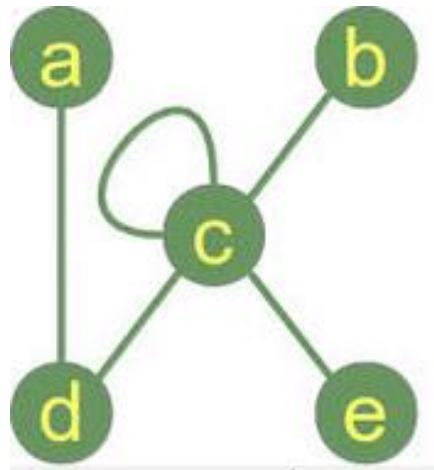


# Question 12



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- Is vertex C even or odd?



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# Question 13



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Question Table

- True or False: An Euler path can pass through the same vertex more than once



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# Question 14



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- A complete graph has at least one \_\_\_\_\_.



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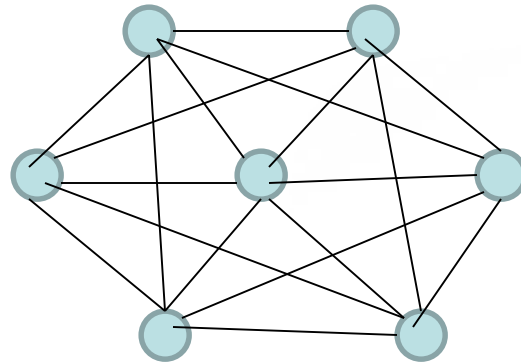


# Question 15



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- Must this graph contain a Hamilton circuit? If so, how many circuits?



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