

CS-225: Discrete Structures in CS

Assignment 9 Part 1

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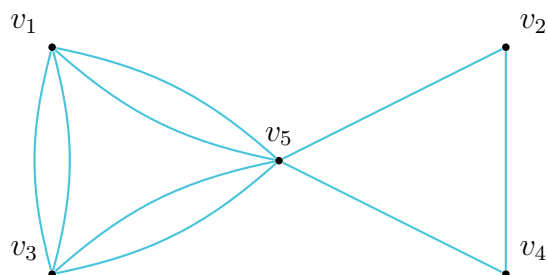
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Exercise Set 10.1

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- a. just a walk
- b. simple circuit
- c. closed walk
- d. circuit
- e. trail
- f. path

9 - b



Yes, there is an Euler Circuit. Follow the vertices:

$v_5 v_2 v_4 v_5 v_1 v_3 v_5 v_1 v_3 v_5$

Also by Theorem 10.1.4, graph G must have an Euler Circuit.

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Yes, there is an Euler Circuit. Follow the vertices:

$srzyxwyuzstuvwus$

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No, there is no Euler Circuit. By Theorem 10.1.4, there cannot exist an Euler Circuit because there are multiple vertices of odd degrees such as u, e, h and w .

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Yes, there is an Euler Circuit. Follow the vertices:

$$uv_0v_7v_6v_3uv_1v_2v_3v_4v_6wv_4v_5w$$