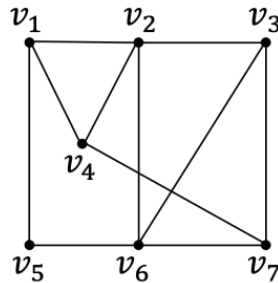


CS201: Discrete Math for Computer Science
2024 Spring Semester Written Assignment #6
Due: June 10th, 2024

The assignment needs to be written in English. Assignments in any other language will get zero point. Any plagiarism behavior will lead to zero point.

Q. 1. Consider the following graphs and answer questions. Please explain your answer.



- (a) Is this graph bipartite?
- (b) What is the edge connectivity?
- (c) Does this graph has a Euler circuit?
- (d) Is this graph a planar?
- (e) What is the chromatic number?

Q. 2. Suppose that G is an undirected graph on a finite set of n vertices. Prove the following

- (a) If every vertex of G has degree 2, then G contains a cycle.
- (b) If G is disconnected, then its complement is connected.