CSE 321 Discrete Structures

Winter 2008
Quiz Section 10
Graph Theory

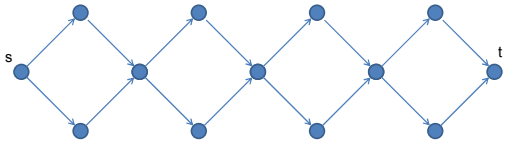
Announcements

- Schedule
  - Review Session
    - Sunday, 2 pm
  - Final Exam,
    - Monday, March 17, 2:30-4:20 pm

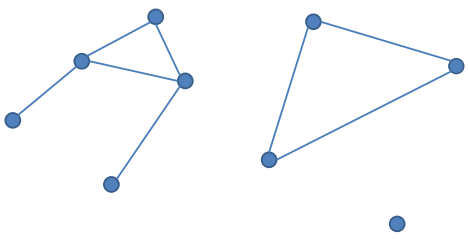
Crazy guy on an airplane

What is the contrapositive of "if all cycles of G have even length, then G is bipartite"

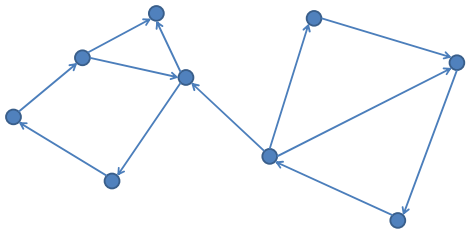
Prove that a directed graph of n diamonds has 2^n paths from s to t



Identify the connected components of the graph



Identify the strongly connected components of the graph



Identify the strongly connected components of the graph

How many different undirected graphs are there on {a, b, c}: Draw all of them

How many different undirected graphs are there on {a, b, c, d, e}? Don't draw them all

Draw a graph that has degree sequence 1, 2, 3, 3, 3

How many edges does $M_{n,m}$ have?

Is the following pair of graphs isomorphic?

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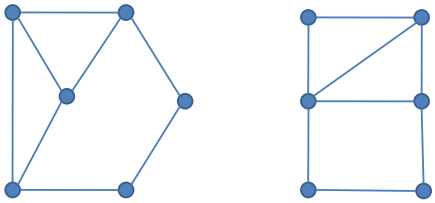

Graph concepts

- Undirected Graph
- Directed Graph
- Adjacent
- Incident
- deg(v)
- $deg^-(v)$
- $deg^+(v)$
- K_n
- Q_n
- Bipartite Graph
- Adjacency Matrix
- Isomorphic Graphs
- Path
- Connected Graph
- Strongly Connected Graph
- Weakly Connected Graph
- Strongly Connected Component
- Connected Component
- Graph Coloring