Last name _____

First name _____

LARSON—MATH 356—CLASSROOM WORKSHEET 01
Introduction.

Concepts & Notation

- Sec. 1.1: vertices, ν, edges, ϵ, graph, adjacent, incident, neighbors.

- Sec. 1.2: identical graphs, isomorphic graphs, $G \cong H$, complete graphs, K_n, empty graph, bipartite graph, complete bipartite graph $K_{m,n}$.

- Sec. 1.3: incidence matrix $\mathbb{M}$, adjacency matrix $\mathbb{A}$.

Daily Notes

- Syllabus

- Book

- Daily Plan

- CoCalc

- Daily Homework

- Daily Worksheet

- No Coding or Proving experience assumed

- Algorithms

Some Background

1. What are graphs, and what can they be used for?

2. What is the history of graph theory, what are its origins?

Notes

3. What is the definition of a *graph*?

4. What is a *drawing* of a graph? (The drawing is not unique!)

5. What are *incident*? What are *adjacent*?

6. What is our vocabulary and notation for the number of vertices? What is our vocabulary and notation for the number of edges?

7. What is a *planar graph*?

8. What are *identical graphs*?

9. What are *isomorphic graphs*?

10. What are *complete graphs*?

11. What is an *empty graph*?

12. What is a *bipartite graph*?

13. What is a *complete bipartite graph*?