Name: _____

MATH 107

Winter 2022

HW 12: Due 01/12

Problem 1. (10pt) Consider the graph below:

(a) What edges are adjacent to 5?

(b) What vertices are adjacent to d?

(c) Is the graph simple?

(d) Are there parallel edges?

Problem 2. (10pt) Consider the graph below:

(a) What is incident to 1?

(b) Is this a multigraph?

(c) Are there isolated vertices?

Problem 3. (10pt) Explain some applications of Graph Theory to the 'real-world.'

Problem 4. (10pt) Are the graphs below isomorphic?

Problem 5. (10pt) Watch PoincareDuality's "A Tribute to Euler" on YouTube. Being as detailed as possible, comment on what you learned and how it relates to the course material.