

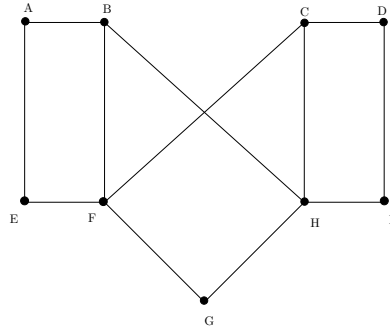
# Homework 3

Math 118 section 004

Due: Wednesday, February 13th

1. Refer to the map of Royalton in question 18, page 187 of our textbook.
  - (a) Draw a graph that models the bridges of Royalton.
  - (b) Explain you can't find a path that crosses every bridge of the city exactly once.
  - (c) Find an optimal exhaustive path that starts and ends in North Royalton.
  - (d) Find an optimal exhaustive path that starts in North Royalton and ends in South Royalton.

2. Use Fleury's Algorithm to find an Euler Path for the graph below. Be sure to draw the graphs used in each step of the algorithm.



3. Explain why the following line graph does not have an Euler path.  
Then find an optimal exhaustive path by using semi-eulerization.

