## Department of Electrical and Computer Engineering ECE 3326: Optimization Methods Fall 2012

## Project #6

## Part b

Complete the project by writing the following function.

```
void prim(graph &g, graph &sf)
// Given a weighted graph g, sets sf equal to a minimum spanning
// forest on g. Uses Prim's algorithm.
```

Apply the function to the input file graph4.txt included with the assignment to find a set of bridges to build that connect the islands as cheaply as possible. Print out the bridges built, the total cost of your solution, and the number of connected components.

Also print out the improvement in the cost of your solution compared with the cost of the spanning forest found by findSpanningForest.