## Math 55: Homework 12 Due Friday, August 7

1.	Find a counterexample to the statement: "The diameter of a graph is the length of its longest path."	
2.	Prove that the statement above is true for trees.	
3.	There is one possible structure for ethane $(C_2H_6)$ . Draw the graph associated with this structure and find the number of automorphisms of the graph.	