## FINAL EXAM Math 7510

**The problem.** Describe a linear-time algorithm that given a 2-connected graph G will correctly determine whether G is planar. Prove that your algorithm works correctly and that it runs in linear time. You may use my planarity notes; no need to repeat what is in those notes.

**Optional problem.** Enhance the algorithm so it will return a planar embedding if the graph is planar.

**Instructions:** Your work is due before 3:05PM on Wednesday, April 29, 2009. You may use any material from the course web site. Other sources may be used by permission only. You may collaborate, but you may not consult with people outside of class. You may submit joint work, but papers with multiple authors will be held to a higher standard. In particular, co-authored papers must be typed.