

Math 4550 HW due April 23, 2009

1. Prove that $K_{3,3}$ is not a planar graph.
2. Prove that if G is the graph of a 3-polytope, then G has a vertex of degree less than or equal to five.
3. Show how to reduce the graph of the 3-cube to K_4 using ΔY and/or $Y\Delta$ (and any necessary SP moves) reductions.