Integer Programming 308-761B

Homework 2 Due: Tues, February 27

Exercises from handout on matroids

1. Ex. 8.5

2. Ex 8.6

3. Ex. 8.7

4. Using the program *lrs* illustrate Theorem 8.5 for each problem above. Ie. if the set system is a matroid, compute the convex hull of the matroid polytope for a reasonably large graph (at least 8 vertices). If it is not a matroid, find a graph that shows this, and compute the convex hull of the incidence vectors of the independent sets. Interpret the output in each case.