



KTH Mathematics

**5B5860 INTEGER PROGRAMMING—PRACTICAL ALGORITHMS Spring 2006**

**Instructor: Anders Forsgren**

**Homework Assignment 2**

**Due Tuesday April 25 2006**

**Exercise 2.1.** Solve Exercise I.4.8.11.iii-iv in *Integer and Combinatorial Optimization*. (Page 112)

**Exercise 2.2.** Solve Exercise I.4.8.12 in *Integer and Combinatorial Optimization*. (Page 112)

**Exercise 2.3.** Solve Exercise I.4.8.13 in *Integer and Combinatorial Optimization*. (Page 112)

**Exercise 2.4.** Solve Exercise I.5.9.11 in *Integer and Combinatorial Optimization*. (Page 144)

**Exercise 2.5.** Solve Exercise I.5.9.13 in *Integer and Combinatorial Optimization*. (Page 144)

**Exercise 2.6.** Solve Exercise I.5.9.15i in *Integer and Combinatorial Optimization*. (Page 144)

You may use the result on  $\mathcal{NP}$ -completeness of node cover as stated in Exercise I.5.9.14i in *Integer and Combinatorial Optimization* without proof.

**Exercise 2.7.** Do you think that  $\mathcal{P} = \mathcal{NP}$ ?

*Good luck!*