

Problems of the Week – 12 and 13

12. Integer linear programming and duality

Problem 29-3 of text

13. Efficiently solvable 3-SAT instances

Consider the class of 3-SAT instances in which each of the n variables occurs in exactly 3 clauses (counting both positive and negated occurrences). Show that such 3-SAT instances are always satisfiable and a satisfying assignment can be solved in polynomial time.