CS524 HOMEWORK #5

• Due date: 24 April 2003

1. Problem 6.11 [Th(ℕ, <) is decidable]
2. (extra credit) Problem 6.12 [Th(ℤ_m, +, ×) is decidable]
3. Problem 7.13 [P is closed under the star operation, that is, if L ∈ P, then L* ∈ P]
4. (extra credit) Problem 7.18 [PRIMES is in NP]
5. Problem 7.29 [if P = NP, then given a Boolean formula φ, one may find a satisfying assignment for φ in polynomial time]
6. Problem 7.34 [3-colourability is NP-complete]