Computer Science 2300: Homework 1

Due: January 29, 2009

Note: Please use rigorous, formal arguments. You will not receive full credit otherwise.

1. (10 points) Problem 5.3-4 (page 105) in CLRS.

2. (10 points) Problem 0.3 (page 9) in DPV.

3. (20 points) Problem 0.4 (pages 9-10) in DPV.

4. (10 points) Let A, B, N, P be positive integers with $A > B$ and $A \equiv B \mod P$. Prove that $A^N \equiv B^N \mod P$.

5. (10 points) Problem 1.15 (page 39) in DPV.

6. (10 points) Problem 1.19 (page 40) in DPV.