

## CMSC/MATH 456, Fall 2008

Homework 2, due at the beginning of class on September 25th

**Instructions.** The homework should be your own work, without any collaboration or consulting sources such as the Web. Please include partial solutions if you cannot fully solve a problem. Neatly write your solutions and staple your work; late homework will not be accepted. *All problems below are the numbered exercises given in the textbook.*

1. Exercise 3.1. **(10 points)**
2. Exercise 3.2. **(5 points)**
3. Exercise 3.3. **(10 points)**
4. Exercise 3.4. **(5 points)**
5. Exercise 3.5. (Note that since this is an equivalence, you need to prove that Definition 3.8 implies Definition 3.9, and vice versa.) **(10 points)**
6. Exercise 3.6. **(10 points)**