**Discrete Math Homework 10**

**Due Wednesday, March 29 at the beginning of class**

General instructions:

* Use standard size paper (8.5 by 11).
* Answer each question in order using a single column.
* Be neat. If we cannot read your solution it is wrong.
* Show your work. If you just write an answer, you will get minimal credit even if the answer is correct.

**Rosen section 5.2**

**Question A)** Rosen 5.2 Exercise 4 (p. 341)

**Question B)** Rosen 5.1 Exercise 10 (p. 342)

**Rosen section 5.3**

**Question C)** Rosen 5.3 Exercise 22 (p. 358)

**Question D)** Rosen 5.3 Exercise 24 (p. 358)

(For part c, you only have to generate polynomials using the variable x. Here are some examples of things that should be in the set. 

**Question E)** Rosen 5.3 Exercise 26 a c (p. 358)

(The terminology "5 | a + b" means that "5 divides a+b" or equivalently "a+b is a multiple of 5".

**Question F)** Rosen 5.3 Exercise 32 (p. 359)

(For part a, look at example 7 on page 350. For part b, look at example 12 on page 355.)

**You may choose to solve one (and only one) of the following Extra Credit Problems. If you submit more than one, only the first will be graded.**

**Extra Credit 1)** Rosen 5.2 Exercise 16 (p. 342)

**Extra Credit 2)** Rosen 5.2 Exercise 11 (p. 342)