

CMSC 203
Section 0301
Fall 2008
Homework 8

Reading Assignment:

- Listen to Chopin's Piano Sonata No. 3
- Reread Chapter 4 of Epp

Homework:

1. Exercise Set 4.4, #2, page 242
2. Exercise Set 4.4, #4, page 242
3. Exercise Set 4.4, #5, page 242
4. Exercise Set 4.4, #17, page 243
5. Let a_0, a_1, a_2, \dots be the sequence defined by

$$a_0 = 0$$

$$a_1 = 3$$

$$a_n = 7a_{n-1} - 10a_{n-2} \quad \text{for } n \geq 0$$

Use strong math induction to prove that

$$a_n = 5^n - 2^n \quad \text{for } n \geq 0$$