Name: \_\_\_\_\_

Read and take notes on the Section 16.4 Feedback Shift Generators.

## **Reading Questions**

- 1. Make sure you understand what the coefficients and the seed/initial state of a feedback shift generator are.
- 2. Fix a size N = 3, a modulus m = 2, coefficients c = (1, 0, 1), and a seed s = (1, 1, 1).
  - (a) Write the recursion relation as an equation  $s_{n+1} = \dots$

(b) Define a matrix C that can be used to write the recursion relation as a matrix equation.

(c) Write the recursion relation as a matrix equation, using the matrix C.

(d) What is the keystream produced by this feedback shift generator? Include the first 12 terms.

3. What struck you in this reading? What is still unclear? What remaining questions do you have?