

MATH 8570 - Spring 2015

Homework 1

Due: Feb. 2 (Tuesday)

Textbook: Stinson, *Cryptography: Theory and Practice*, 3rd edition.

Question 1.

Compute the cardinality of the set of keys of the Hill Cipher.

Question 2.

Decrypt the ciphertext from exercise 1.21.(c) using its frequency analysis. Computations can be made using a computer algebra system.

Question 3.

Solve exercise 1.24.

Question 4.

Solve exercise 2.3.

Question 5.

Solve exercise 2.10.