HONS 195N: CRYPTOGRAPHY
WORKSHEET, DAY #2

Problem 1. Compute 3^8 modulo 79 *without* using a calculator.

Problem 2. The following message has been encrypted using a simple formula modulo 26.
$$\texttt{zweajwhtwsxwimvoajyt}$$
Decrypt the message.

Problem 3. Suppose Alice and Bob want only to exchange credit card numbers (having 16 digits). Design a cryptosystem based on the shift cipher to accomplish this. Is your cryptosystem secure?