UMBC
Fall 1994

CMSC–443
Cryptography and Data Security

Homework 4

Problem 1
Describe all integral solutions to each of the following Diophantine equations:

$$14841x \equiv 2001 \bmod 89811 \tag{1}$$

$$14841y \equiv 2907 \bmod 89811. \tag{2}$$

Carefully explain, justify, and check your work.

Problem 2
Using the browser xmosaic, explore the internet for information about cryptology, beginning with the home page for our course. Write a brief (approximately 2-page essay) describing your journey. Identify the most interesting idea you discovered in your travels. Explain, describe, and discuss this idea in some detail. If you would like the 443 home page to include additional URL's please email them to the instructor.