Tanner Krebs, Gerardo Lopez, William Thornton
Math 314
Due: 10/26/17

COSC/MATH - 314
Assignment 6

Problem 1: . Find $-a$ (the additive inverse) for each element a in Z_5.
Find a^{-1} (the multiplicative inverse) of each element a, except 0, in Z_5.
(Recall that Z_5 is the class of residues mod 5, together with the operations
of $+(mod 5) and * (mod 5)$).

Problem 2: Using the extended Euclidean algorithm find the multiplicative
inverses of

 (a.) 1234 mod 431. Show calculations

 (b.) 550 mod 1769. Show calculations

Problem 3: Exercise 1 (a) and (b), page 104, textbook.

Problem 4: Exercise 3 (a) and (b), page 104, textbook (use the method on
page 74, which we also discussed in class).

Problem 5: Exercise 5(a) and 5(b), page 104.