Homework 5

Due: Wednesday 9/28 at 11:59pm

Submit the following with handin as assignment hwk5.

1. (5 points) Complete the basic part of lab 3. Your program should generate (and print) an RSA key pair, read a message from the user, encrypt it (and print the result), and decrypt it. Be sure to use BigInteger and make it easy to change the key size (either a command line argument or a variable; include directions on doing this).

2. (4 points extra credit) Implement the Extended Euclid’s algorithm with BigIntegers. Your program should take 2 numbers and print both their greatest common divisor and the linear combination of the numbers that yields it.