

## Problem Set 5

### Due: Thursday, November 21

Work the following problems. A subset of the problems will be graded. Be sure to adhere to the expectations outlined in the *Problem Set Guidelines Sheet*.

- (1) An investigative reporter came across the following message recently:

1214 0556 3545 4089 1604 1128 1631 0313 3205 1004 1490 3646

She says that she was told it was encoded using something called *RSA public key cryptography* with keys  $e = 3299$  and  $n = 4171$ . She has no idea what this means. Decode the message for the reporter. Be sure to explain exactly what you did to decode the message.

- (2) Using public keys  $n = 1537$  and  $e = 47$ , encode the message “YES WAY” with RSA public key cryptography.