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HW 27: 5.6 - 5.7

M328K

May 3rd, 2012

**5.6 Exercise.** *Describe an RSA Public Key Code System based on the primes 11 and 17. Encode and decode several messages.*

*Solution.*

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**5.7 Exercise.** *You are a secret agent. An evil spy with shallow number theory skills uses the RSA Public Key Coding System in which the public modulus is  $n = 1537$ , and the encoding exponent is  $E = 47$ . You intercept one of the encoded secret messages being sent to the evil spy, namely the number 570. Using your superior number theory skills, decode this message, thereby saving countless people from the fiendish plot of the evil spy.*

*Solution.*

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