**Problem 1** (10 puts) (4.6 26) What is the original message encrypted using the RSA system with  $n = 53 \cdot 61$  and e = 17 if the encrypted message is 3185 2038 2460 2550? (To decrypt, first find the decryption exponent d which is the inverses of e = 17 modulo  $52 \cdot 60$ .)