TYPE YOUR NAME HERE
HW 11: 2.37, 2.38, 2.41
M328K
February 28th, 2012

2.37 Theorem. *If $r_1, r_2, \ldots, r_m$ are natural numbers and each one is congruent to 1 modulo 4, then the product $r_1 r_2 \cdots r_m$ is also congruent to 1 modulo 4.*

Proof. Type your proof here! □

2.38 Theorem (Infinitude of $4k + 3$ Primes Theorem)**.** *There are infinitely many prime numbers that are congruent to 3 modulo 4.*

Proof. Type your proof here! □

2.41 Exercise. *Use polynomial long division to compute $(x^m - 1) \div (x - 1)$.*

Solution. Type your solution here! □