

**MATH 201C FALL 2016 GRADED HOMEWORK #1**

*Write clearly. Both questions carry equal weight.*

For each question, write a formal proof.

- (1) Let  $m$  and  $n$  be integers. If  $m - n$  is odd, then  $m$  and  $n$  have opposite parity.

- (2) Let  $x$  be a real number. If  $2x^3 + x > 3x^2$ , then  $x > 0$ .