

## MATH 201 FALL 2017 GRADED HOMEWORK #1

*Write clearly. Both questions carry equal weight.*

For each proposition, write a formal proof.

(1) Let  $n$  be an integer. Then  $n^2 - 3n + 6$  is even.

(2) Let  $x$  be a real number. If  $x^3 + 7x^2 - 8 \leq 0$ , then  $x \leq 1$ .