## MATH 201 SPRING 2020 GRADED HOMEWORK #1

Write clearly. Both questions carry equal weight.

For each proposition, write a formal proof.

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

(2) Let n be an integer. If  $n^3 - n^2 + n + 2$  is odd, then n is odd.