Name:

Prove any **two** of the following three statements. (5 points each)

1. For all integers a, b, and c, with $a \neq 0$, if $a \mid b$ and $a \mid c$, then $a \mid (b - c)$.

2. For any integer n, if n is an odd integer, then n^3 is an odd integer.

3. For each integer a, if $4 \mid (a - 1)$, then $4 \mid (a^2 - 1)$.