

CSE 311: Foundations of Computing I

QuickCheck: FOL and Inference (due Thursday, October 9)

Name:

UW ID:

CSE 311 Section (circle one): AA AB AC BA BB BC

0. Oddly Even

Let $\text{Even}(x)$ be $\exists y \ x = 2y$, and let $\text{Odd}(x)$ be $\neg \text{Even}(x)$.

(a) Translate the statement

$$\forall x \forall y ((\text{Odd}(x) \wedge \text{Odd}(y)) \rightarrow \text{Even}(x + y))$$

into English.

(b) Prove the statement from part (a) using a *formal proof*.

1. Let x be an integer.
2. Let y be an integer.