**CMSC 207 Chapter 4 Proof Questions**

**#1.**

Disprove the following statement. Then write the negation of the following statement, and prove that the negation of the statement is true.

***∀* integers *m* and *n*, if 2*m* + *n* is odd then *m* and *n* are both odd.**

**Proof:**

**#2.**

Prove that the following statement is false: The product of any two irrational numbers is irrational.

**Proof:**