

CS 103: Mathematical Foundations of Computing
Problem Set #1

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Due Friday, January 16, at 1:00 PM Pacific

Problem One: Direct Proof

Prove the following theorem.

Theorem: Given an integer n , if n is odd, then n^2 is odd.

Write your answer to Problem One here.

Problem Two: Proof by Contradiction

Prove the following theorem.

Theorem: For all integers m and n , if mn is even and m is odd, then n is even.

Write your answer to Problem Two here.