Math 3325 **In-Class Activity 2** **Spring 2007**

Time: 15 minutes.

One volunteer from each group will present the group's findings.

The variable name x stands for an arbitrary natural number. Prove or disprove:

Problem 1 If x is not odd, then x^2 is not odd.

Problem 2 If x^2 is not odd, then x is not odd.

Problem 3 If x^2 is odd, then x is odd.

Problem 4 If x is divisible by 7, then x^2 is divisible by 7.

Problem 5 If x is not divisible by 7, then x^2 is not divisible by 7.

Problem 6 If x^2 is divisible by 7, then x is divisible by 7.

Problem 7 If x^2 is not divisible by 7, then x is not divisible by 7.

Problem 8 If x^2 is divisible by 12, then x is divisible by 12.

Problem 9 If x^2 is not divisible by 12, then x is not divisible by 12.