

**MATH 113: DISCRETE STRUCTURES
HOMEWORK FOR MONDAY WEEK 12**

Problem 1. Prove that if integers a and n are relatively prime, then a has an inverse modulo n , i.e., there exists an integer x such that $ax \equiv 1 \pmod{n}$.

Problem 2. Solve the congruence $2x^2 - x \equiv 0 \pmod{11}$.