
Math 4362 - Number Theory

Practice Problems: Chinese Remainder Theorem

1. Solve each of the following sets of simultaneous congruences:

(a) $x \equiv 1 \pmod{3}, x \equiv 2 \pmod{5}, x \equiv 3 \pmod{7}$

(b) $x \equiv 5 \pmod{11}, x \equiv 14 \pmod{29}, x \equiv 15 \pmod{31}$

(c) $x \equiv 5 \pmod{6}, x \equiv 4 \pmod{11}, x \equiv 3 \pmod{17}$