QUIZ 10 - MATH 2000 April 16, 2009 Time: 15 minutes

LAST NAME:

FIRST NAME:

## Question 1

A relation R is defined on Z by xRy if x + 5y is even. Prove R is an equivalence relation.

## 2

Question 2 Let  $A = \{1, 2, 3, 4, 5, 6\}$ . The relation

$$R = \{(1, 1), (1, 5), (2, 2), (2, 3), (2, 6), (3, 2), (3, 3), \\(3, 6), (4, 4), (5, 1), (5, 5), (6, 2), (6, 3), (6, 6)\}$$

is an equivalence relation on A. Determine the distinct equivalence classes.