MATH 260, Homework 1, Fall '14
Due: August 29, 2014 at 2:20 PM
Honor Code: **Name:**
Section:

1) How many solutions does each of the following linear systems have? What are they? (Notice that the only difference between the systems is one coefficient!)

a) (10 pts)

$$\begin{array}{rcrcrcr} x & + & y & + & z & = & 6 \\ x & - & y & + & z & = & 4 \\ 3x & - & 2y & + & 2z & = & 13 \end{array}$$

b) (10 pts)

$$\begin{array}{rcrcrcr} x & + & y & + & z & = & 6 \\ x & - & y & + & z & = & 4 \\ 3x & - & 2y & + & 3z & = & 13 \end{array}$$

2) (5 pts) Given two linear equations in three variables, what are the possibilities for the numbers of solutions (such as "there could be two or five solutions")?