MATH 260, Homework 7, Fall '14
Due: October 10, 2014 at 2:20 PM
Honor Code: **Name:**
Section:

1) (25 pts) Decide whether or not the given set constitutes a subspace of $\mathbb{R}^n$. If it's not a subspace, identify at least one requirement that is not satisfied and demonstrate it with an example of it failing.

a) $S_1 = \{(x, y)|y = 2\}$

b) $S_2 = \{(x, y, z)|x + y = 0\}$

c) $S_3 = \{(x, y, z)|x + z = 3\}$

d) $S_4 = \{(x, y) | x^2 + y^2 = 1\}$

e) S_5 is the set of all points in the 1st quadrant of the Cartesian plane.