Math 302

Quiz 1

13/ 10/ 2010

Name: **ID #**

Problem 1 (4 points): Let $S = \{(x, y, x - 2y, x + y)$ such that $x, y \in \mathbb{R}\}$. Show that S is a subspace and find a basis and dim$S$

Problem 2 (6points):
Find the solution space of the system

$$2x_1 + x_2 - x_3 - 3x_4 = 0$$
$$+x_2 + 2x_3 - x_4 = 0$$