Math 265 Quiz # 2	Spring 97–Sec. 01 Dr. Alberto Corso	Name: ____________________ ______________________	Please, be neat and show all your work; circle your answer.

1. Let W be the following set

$$W = \left\{ \mathbf{v} = \begin{pmatrix} s-2t \\ 3t+4s \\ t \\ s \end{pmatrix} : s, t \text{ any } \text{ real number} \right\}.$$

Show that W is a subspace of $\mathbf{R}^4$ by showing that it is closed under addition and scalar multiplication.

grade: /5

2. Let W be the same set as in the previous Problem. Show that W is a subspace of $\mathbf{R}^4$ by showing that it is the nullspace of a matrix A. Find A.

grade: /5

grade: /10