Math 055 Calculus III. February 10, 2010

1. Which of the following four lines are parallel? Are any of them identical?

\[ L_1 : x = 1 + t, \; y = t, \; z = 2 - 5t \]

\[ L_2 : x + 1 = y - 2 = 1 - z \]

\[ L_3 : x = 1 + t, \; y = 4 + t, \; z = 1 - t \]

\[ L_4 : \mathbf{r} = \langle 2, 1, -3 \rangle + t \langle 2, 2, -10 \rangle \]
2. Find a plane that contains the line $x = 3 + 2t, y = t, z = 8 - t$ and is parallel to the plane $2x + 4y + 8z = 17$. 