Math 423 **Fake Quiz** **Name:**_____

J. Zinn **ID#** _____

(a) If S and T are linear transformations from V_1 to V_2, then for any scalars α and β, $\alpha S + \beta T$ is, also, a linear transformation from V_1 to V_2.

(b) If $T : V_1 \longrightarrow V_2$ is linear, then $T(0) = 0$.

(c) If $T : V \longrightarrow C[0,1]$ is linear and $g \in C[0,1]$, then S given by $S(x) = g \cdot T(x)$ is a linear transformation from V to $C[0,1]$.