MA552. Homework 9

*Homework due November 7, 2006*

Try to prove the following statement, which is Proposition 7.5. in the notes:

If $f$ is a linear map of $E$ into $F$ and $g = f^t$ its transpose, a necessary and sufficient condition for the equation $f(x) = y_0$ to have a solution is that $\phi(y_0) = 0$ for all $\phi \in g^{-1}(0)$. 