ECO 735 Homework #5

Assigned January 26, 2012
Due January 31, 2012

1. Consider a person who has preferences defined over consumption goods, C, and leisure time, L, such that $U = \alpha \ln C + (1-\alpha) \ln L$. Consumption goods consist of goods that are purchased in the market, X_M, and goods that are produced with the person's own time, X_T, such that $C = X_M + X_T$. Market goods can be purchased with the person's earned and unearned income, $X_M = WH + N$. Let T be the time the person allocates to the household production of X_T, and let $X_T = \beta \ln T$. Finally, let K be the maximum available amount of time, so that $K = L + H + T$. Derive the optimal levels of (market) labor supply and household work, assuming an interior solution.