

Problem Set 1

Search Theoretic Models of Labour Market

1. (Due Tomorrow) Show that mapping T defined in (1.4) is a contraction mapping.
2. (Due Tomorrow) Derive (1.6) from (1.5).
3.
 - A. (Due Tomorrow) Write down the Bellman Equations for $W(w)$ and U where the working contracts end up with exogenous probability λ known to everyone. The remaining setup is similar to very first search model that we discussed in class.
 - B. (Due Next Sunday) Simplify the equations to an equation similar to (1.6).
4. (Due Next Sunday) What is the sign of $\frac{\partial w_R}{\partial b}$ in 1.12? What is the necessary assumption about parameters for $T(w_R)$ defined in 1.12 to be a contraction mapping.