 homework #5

1. Repeat problem 1 from Homework #4, but let the production function depend on a random shock $z$ as well as on capital $k$: $f(k, z) = A e^{\gamma z^{\alpha} k^\alpha} + (1 - \delta)k$. First, consider a discrete shock: $z \in \{z_L, z_H\}$, with transition probabilities $P(z' = z_j | z = z_i) = p_{ij}$. Second, consider a continuous shock: $z' = \rho z + \epsilon'$, where $|\rho| < 1$ and $\epsilon' \sim iidN(0, \sigma^2)$.

2. Repeat problem 2 from Homework #4, but let the production function depend on a random shock as in problem 1 on Homework #5.