Assignment
Solving the Aiyagari Model in Continuous Time

For this problem set, you are asked to solve the Aiyagari model in continuous time. To your help is an m.file called `household.m` which solves the households problem given a wage and an interest rate. All needed parameters are in the code.

(i) Start by familiarising yourself with the code. You can do so by setting `Na` to a small number and print the relevant matrices.

(ii) Calculate the steady state value of the employment rate and the unemployment rate, and derive the equilibrium tax rate.

(iii) Calculate the stationary endogenous distribution, and the associated value of capital supply.

(iv) Set $r_h = 1/\beta - 1$ and $r_l = 0$.

(v) Set $r = \frac{r_h + r_l}{2}$ and calculate the wage according to the firms optimisation problem.

(vi) Repeat step *(iii)* and find the interest rate implied by the associated capital supply, $\hat{r}$.

(vii) Update r_h or r_l according to the bisection method and return to step *(vi)* until $|r - \hat{r}| < 1e - 6$