Instructions for PS4

1) **'main.jl'** is the main file that creates
   1.1) a plot for linear basis functions
   1.2) a plot for the optimal saving policy functions with two states of labor (use NewtonRoot_mult.jl subroutine)

2) **'FEM_aiyagari.jl'** is the file that
   2.1) Create household instance that holds all parameters (Household instance).
   2.2) Construct a linear basis (ψ function).
   2.3) Compute numerical integral (num_quad function).
   2.4) Estimate saving policy function with finite element method (get_apol function).
   2.5) Compute expected value on the R.H.S. of the Euler equation (get_expected function).
   2.6) Compute residual equation (get_resid function).
   2.7) Compute the numerical integration of weighted residuals with Galerkin weights (weighted_resid function).
   2.8) Stacks up all weighted residuals into a matrix G (G function).

3) **'NewtonRoot_mult.jl'** is the file that
   3.1) Solve for multivariable roots of a function.