

FALL 2023
ECON 602.
(Midterm computational component)

Due by 11:59 pm, October 22, 2023

A social planner maximizes

$$E_t \sum_{s=0}^{\infty} \beta^s \frac{\left(c_{t+s}^{\mu} (1 - l_{t+s})^{1-\mu} \right)^{1-\sigma}}{1 - \sigma}$$

subject to

$$c_t + k_{t+1} - (1 - \delta) k_t = k_t^{\theta} l_t^{1-\theta}$$

Assume the following parameter values:

	Parameter values		
Preferences	$\mu = 0.34$	$\sigma = 2$	$\beta = 0.99$
Technology	$\theta = 0.36$	$\delta = 0.025$	$\rho = 0.9; \eta = 0.01$

Compute and plot the value and policy functions by modifying the Python codes that has been shared with you earlier.