**Question 1:** (The Solow Model in discrete time with technological progress.)

Consider the Solow model that was presented in class but now allow for labor augmenting technological progress so that:

\[ Y_t = K_t^\alpha (A_t L_t)^{1-\alpha} \]

where labor and technological progress grow each period according to

\[ L_t = (1 + n) L_{t-1} \]
\[ A_t = (1 + g) A_{t-1} \]

where \( L_0 \) and \( A_0 \) are taken as given.

As before, the evolution of capital is governed by

\[ K_t = (1 - \delta) K_{t-1} + I_t. \]

To complete the model, make Solow’s assumption that a constant fraction \( s \) of output is invested. Chose an appropriate normalization and fully characterize the steady state of the economy. What is the growth rate of output per worker in the steady state?

**Question 2:** Romer 1.4.

**Question 3:** Romer 1.6.

**Question 4:** Romer 1.9.