Question 1
Consider the following economy:

\[ K = K_1 + K_2 \]
\[ Y = C + Z_1 + 4Z_2 = K^{2/3}L^{1/3} \]
\[ \dot{K}_1 = Z_1 \]
\[ \dot{K}_2 = Z_2 \]
\[ \frac{\dot{L}}{L} = .02 \]
\[ C = \frac{7Y}{10} \]

(a) What would a smart planner do about the allocation of investment between types of machines?

(b) Describe the momentary (static) equilibrium. What are the conditions on prices imposed by momentary equilibrium?

(c) Give the asset market clearing equations.

(d) Describe the trajectory of capitals and prices consistent with momentary equilibrium and efficiency of long-run development.

(e) Show that on other paths there are bubbles that burst in finite time.