1. Question 3 on p. 107 of Blanchard (continues on page 108)

2. Question 3 on p. 131 of Blanchard

3. Suppose that an economy produces output according to \( Y = N \) and that the demand for output is determined by \( Y = P^{-\eta} \) (\( \eta \) is the elasticity of demand). Each unit of labor is purchased at a wage rate of \( W \). This is a tough one.

   a) Write down a profit function for the economy. Make sure your profit function only has \( P \) and \( W \) as arguments.

   b) Suppose a monopolist set prices in the economy in order to maximize profits. What is the first-order condition characterizing profit maximization?

   c) Solve for the profit-maximizing level of prices.

   d) Can you express the markup (\( \mu \)) in terms of the elasticity of demand? How does elasticity relate to the markup (inversely or positively)?