1. Start with the following supply & demand schedules: \( P = 200 - 2Q \) & \( P = 20 + 4Q \).
   a) Find the market-clearing (equilibrium) \( P \) & \( Q \) and the \( P^\text{demand} \) & \( P^\text{supply} \) at the equilibrium \( P \) & \( Q \).
   b) If there is a $30 tax on sellers, find the equilibrium \( P \) & \( Q \). What are the net prices to buyers & sellers?
   c) With no tax on sellers, but a $30 tax on buyers, find the equilibrium \( P \) & \( Q \). What are the net prices to buyers & sellers?
   d) What is the incidence of either tax?

2. If \( F \) is large & \( MC \) is very low, what are the implications for the # of firms & the form of competition?

3. Suppose \( C = 9000 + 10q^2 \). Find the output at the minimum point of the AC curve. What are \( MC \) and \( AC \) at that point?

4. Suppose a price taker has \( C = 1800 + 2q^2 \) and \( P = 100 \).
   a) Find the firm’s profit-maximizing \( q \) and its \( \pi \).
   b) If each firm has identical cost, is the market in long run equilibrium? If it is not, what will happen & what will \( P \) equal in the long run? If \( \pi < 0 \) currently, will each firm operate?

5. If MC falls for all firms in a market, what happens to \( P \), \( Q \), & \( \pi \)? How does the market \( E^\text{demand} \) affect your answer?