Chapter

1. Suppose that a homogeneous products duopoly faces a market demand function given by $P = 140 - Q$, where $Q = Q_1 + Q_2$. Both firms have a constant marginal cost $MC = 20$.

   (a) Write each firm's residual demand curve.

   (b) Find each firm's marginal revenue curve.

   (c) Find each firm's best response function to their competitor's level of output.

   (d) What is Firm 1s profit-maximizing quantity, given that Firm 2 produces an output of 30 units per year? What is Firm 1s profit-maximizing quantity when Firm 2 produces 40 units per year?

   (e) What is the Cournot equilibrium quantity per firm and price in this market?

   (f) What is the Bertrand equilibrium price in this market?