

Econ 301 Discussion - 10/20/2023

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Content Review

- Inverse demand, residual demand

- Monopolies

- Nash equilibrium

- Cournot Competition and Bertrand competition

Practice Questions

1. Firm A is a monopoly and has cost curve $c(q) = \frac{1}{2}q^2$. Market demand is $D(p) = 12 - p$. If Firm A were a price taker and produced so that $p = MC$, what would market price and quantity be?

2. Firm A is a monopoly and has cost curve $c(q) = \frac{1}{2}q^2$. Market demand is $D(p) = 12 - p$. If Firm A is not a price taker and sets a unique monopoly price to maximize its profit, what is the price?

3. There are $N = 2$ identical firms in a market, each with cost function $c_i(q_i) = 10q_i$. Market demand is $D(p) = 140 - 2p$. Solve for the equilibrium price if the firms are in Cournot competition, and if they are in Bertrand competition.

4. Now solve for the price in this same market structure if there were $N = 3$ identical firms competing in Cournot competition, and if they are in Bertrand competition.