1. The graph below depicts the demand curve and cost curves of a monopolist.

![Monopoly Graph]

a) Draw the marginal revenue curve. What is the marginal revenue associated with the 40th unit of output? Explain.

b) What output would a monopolist produce at?

c) What price would a monopolist charge?

d) What would be the monopolist’s profits?

e) Would the monopolist’s level of output be efficient (would there be deadweight loss)? If not, what level of output would be efficient? Explain.
2. The following graph is for a firm in an industry characterized by Monopolistic Competition.

a) What are the assumptions that characterize this market (what makes it monopolistic competition)?

b) Draw the firm’s marginal revenue curve.

c) What quantity and price would the firm produce at in short run equilibrium?

d) What would we expect to happen to the firm’s demand curve over time? Why?

e) Will the firm in a market of monopolistic competition be efficient?

f) What is meant by excess capacity and is it something we should be concerned about?
3. The graph below show the market demand curve and marginal cost for an oligopoly that has two identical firms.

![Graph showing market demand curve and marginal cost](image)

a) What are the assumptions that characterize this market (what makes it oligopoly)?

b) Draw the combined marginal revenue curve for both firms. Draw the marginal revenue curve for one of the firms.

c) What quantity and price would the firm produce at in short run equilibrium?

d) Compare this price and quantity to what we would have if there were a monopoly and to what we would have if there were perfect competition (many firms, each with constant marginal cost of $1).

e) Describe how the prisoners dilemma relates to an oligopoly market structure.
4. Answer the following true or false and explain why.

a) The market is always efficient when firms sell the quantity where marginal revenue equals marginal cost.

b) If a monopoly is not being efficient, then it is not maximizing profits and has made a mistake.

c) When there is more competition, we expect to see lower prices, a higher quantity, and bigger profits than for the other market structures.

d) The market will give us an economic efficient outcome without any government intervention only if the industry is characterized by perfect competition.

e) Firms earning a positive profit will continue to earn positive profits in the long run as long as there are barriers to entry.

f) Excess Capacity implies we could be producing at a lower ATC in monopolistic competition if we had fewer firms each producing a higher quantity.