

## Practice Final #1 Answer Key

### Multiple Choice Questions

5. D

7. B

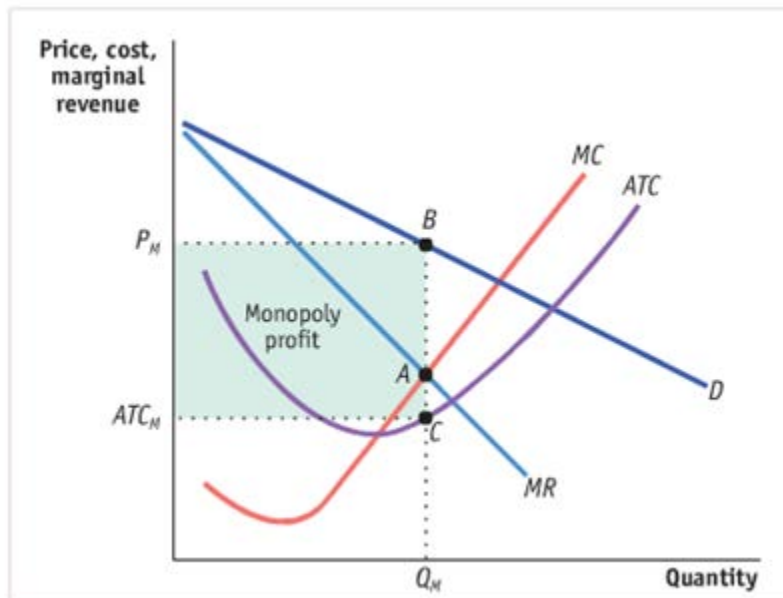
8. D

9. D

10. C (Note: do not worry about the kinked demand curve of the oligopolist...we did not cover this)

### Short Answer Questions

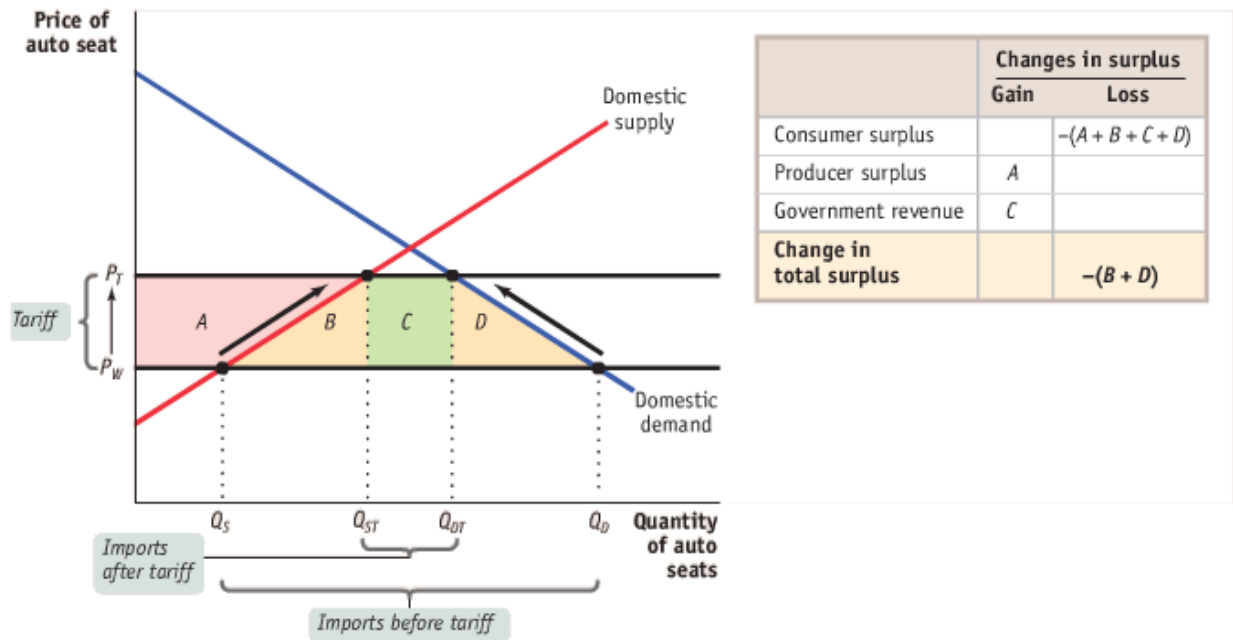
2. Monopolist making profits:



$MR < P$  for the monopolist because when the monopolist wants to sell one additional unit of their good/service, they must lower the price on all units sold. This causes the MR curve to lie below the demand curve, and thus implies that  $MR < P$ .

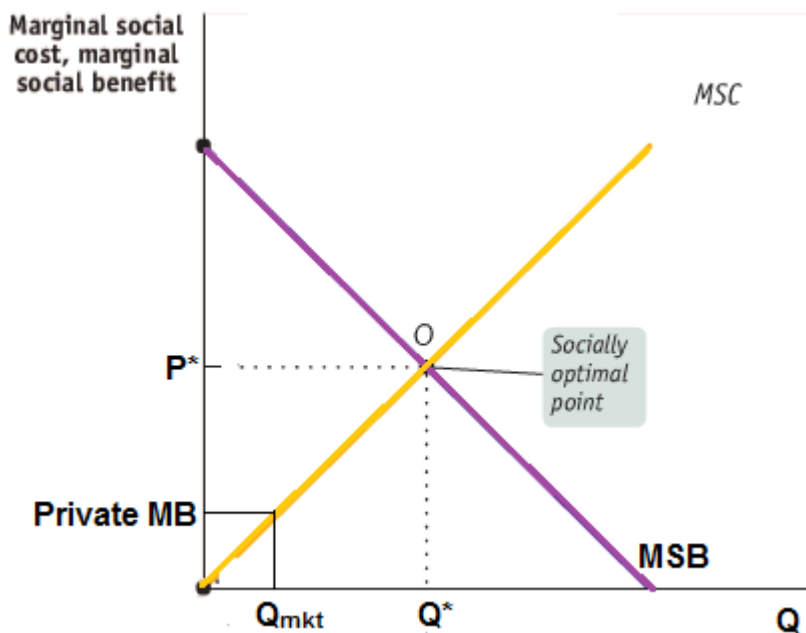
$MR = P$  for the perfectly competitive firm, because perfectly competitive firms are price takers. They can sell as much or as little as they want at the market price, and their individual production decisions have not effect on the market price.

3. Effects of an import tariff:



After the tariff is imposed, the domestic price of shoes rises and the amount of imports falls. Consumer surplus falls by areas  $(A+B+C+D)$ , producer surplus increases by area  $A$ , and total surplus falls by areas  $(B+D)$ .

4. Note: we did not cover marginal social versus marginal private benefit/cost curves. Instead I will illustrate a) the socially optimal quantity of semiconductor chips, b) the market outcome, and c) the optimal Pigouvian subsidy in the semiconductor chip market.

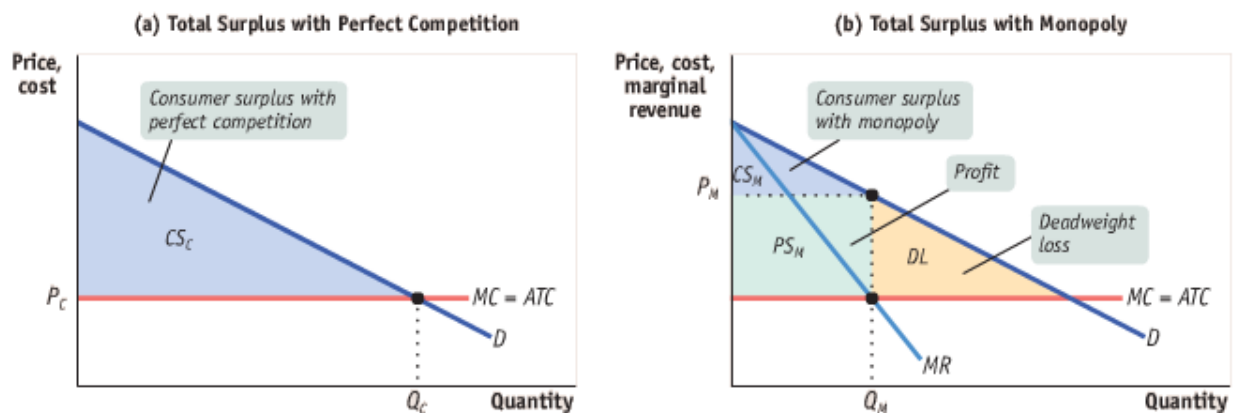


a. The socially optimal quantity of semiconductors is given by the intersection of the MSC and MSB curves, at  $Q^*$  and  $P^*$ .

b. The market outcome, however, will be where the marginal benefit to the individual producer is equal to their marginal cost. Assuming the marginal benefit to the individual is equal to “private MB” (which we can interpret as being the price the producer gets from selling an additional semiconductor), then they will produce at  $Q_{\text{mkt}}$  which is less than the optimal quantity  $Q^*$ .

c. To reach the social optimum, we want to increase the private marginal benefit up to the socially optimal price  $P^*$ . This is achieved by giving a Pigouvian subsidy equal to  $P^* - \text{private MB}$ .

## 5. Monopoly versus Perfect Competition



Total surplus is higher in perfect competition compared to monopoly. Economists view monopolies unfavorably because monopolists reduce quantity below the social optimum in order to raise price and profits. This results in lost mutually beneficial transactions and results in deadweight loss.

## 6. Market structures and perfect competition in the short run

a.

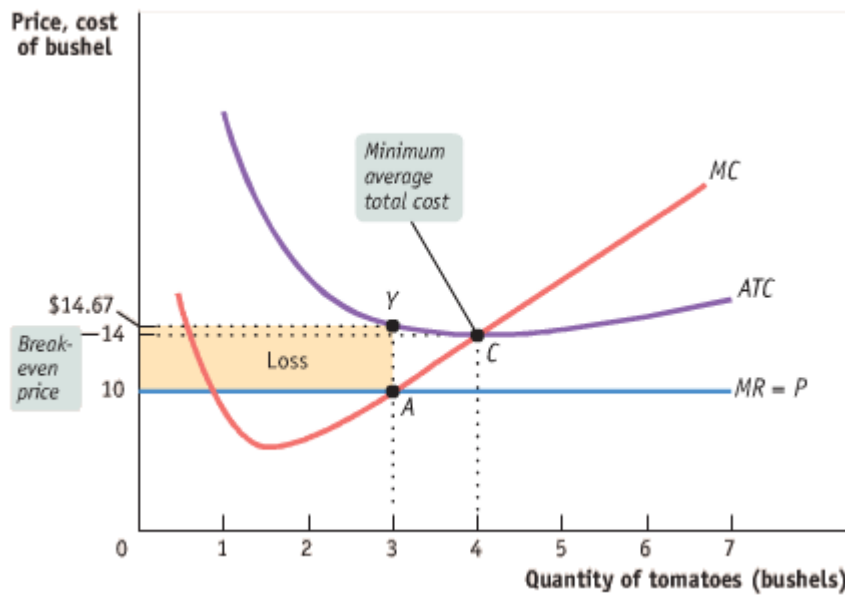
		Are products differentiated?	
		No	Yes
How many producers are there?	One	Monopoly	Not applicable
	Few	Oligopoly	
	Many	Perfect competition	Monopolistic competition

Perfect competition: free entry and exit in the long run, many producers, no differentiation

Monopoly: one producer, no differentiation, barriers to entry and exit exists

Oligopoly: few (but more than one) producer, product may or may not be differentiated, limited entry and exit

b.



This firm should shut down because  $P < \min ATC$ . That is, they cannot even cover their variable (and thus avoidable) costs of production so they should shut down.