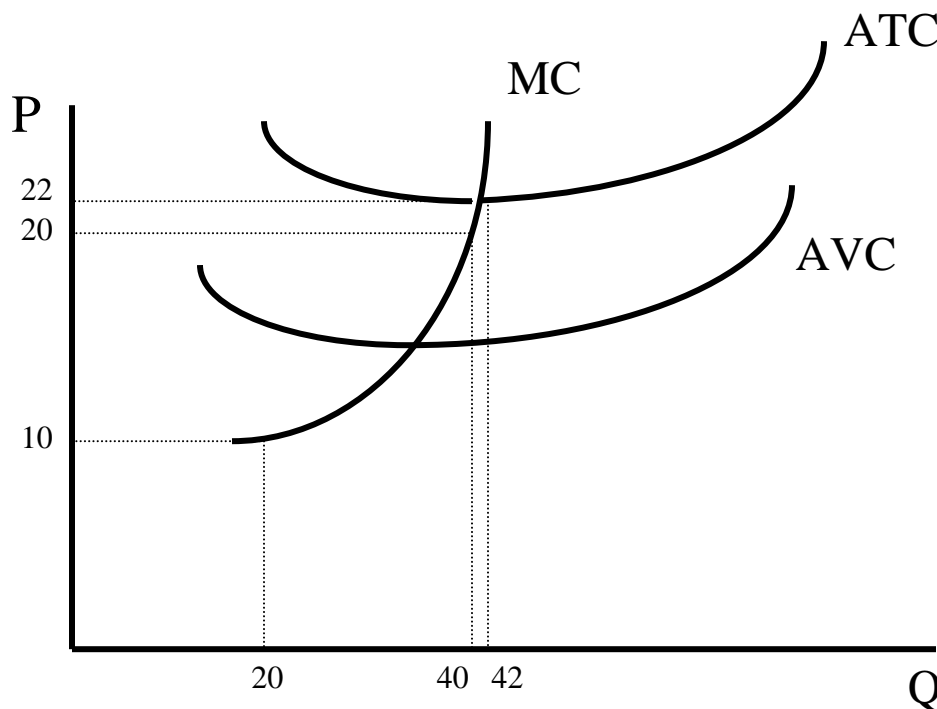


Second Exam

Write all answers in your blue book and show all work there.
Return your exam in your blue book.

18 pts.

1) Consider the diagram below.



- If $P = 10$, what should Q equal? Why?
- If $P = 20$, does TR cover TC ? Explain.
- If $P = 22$, describe profit.
- What can you say about sunk cost, based on what you see in the diagram? Why?

14 pts.

$$2) U = 200 - (10 - 2X)^2 - (20 - 3Y)^2$$

- Find MU_X .
- Find MRS .

22 pts.

$$3) \text{ Let } Q = L^2K$$

- Use marginal products to find the $MRTS$.
- If the $MRTS = -2$ and $P_L = P_K$, is cost minimized? Why?
- Are returns to scale increasing? Why?
- Find MC if $P_L = 100$ and $L = K = 10$.



14 pts.

4) $TC = 10 + 5Q + .1Q^2$ for 50 firms.
and $P = 50 - Q/10$ for the market

- a) Draw the MC curve for one firm and the supply and demand curves for the market.
- b) Assume that we have an increasing cost industry and add a long run supply curve to the diagram.

18 pts.

- 5) a) Draw a well-labeled diagram that shows the effect of a price ceiling on the gain from trade. Explain the diagram.
- b) Use your diagram to show how a tax could generate the same P & Q and explain how the dead weight loss would be less.
- c) Who is supposed to be pleased by a price ceiling? Are they generally pleased with the result?

14 Pts.

6. Draw an Edgeworth Box where one of the individuals is much richer and where we have Pareto Optimality. Explain.

I have neither given nor received unfair aid on this test nor am I aware of anyone else who has.
