

First Exam

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

18 pts.

- 1) Suppose that $Q_D = 20 - 2P$ and $Q_S = -10 + 2P$
- Draw a well-labeled diagram of these equations and solve for the equilibrium values..
 - Now suppose that \$2 excise tax is imposed. Solve for and graph this equilibrium..
 - Identify the prices that both the sellers get and that the buyers pay.
 - What are these prices if there is a \$2 sales tax?

18 pts.

- 2) Hillarie's opportunity cost of making 1000 bricks is 4 autos. Donald's opportunity cost of making 1000 bricks is 2 autos..
- Who has the comparative advantage in brick production?
 - Who has the comparative advantage in auto production?
 - If they are going to specialize and trade who will do what and will trade be mutually advantageous when the price of 1000 bricks is 1 auto? Why?
 - Suggest a price that's better.

16 pts.

- a) Why must indifference curves slope down?
- b) Why do we think that they are concave?

16 pts

- a) Draw an indifference curve diagram that shows a corner solution.
- b) Is the $MRS_E (-P_X/P_Y) = MRS_C (MV)$ when at the point you show. Why?
- c) If the $MRS_E (-P_X/P_Y)$ is $> MRS_C (MV)$ how should X and Y change to increase utility? Explain.

16 pts

- a) Use a utility model to show that utility can increase when real income decreases.
- b) Describe what happens to the mix of goods that makes part a possible.

16 pts.

- a) $AC = 10 - 2X + X^2/2$, find the minimum AC. Confirm that it is a minimum.
- b) $TR = P \cdot Q$, use the product rule find the MR..

I have neither given nor received unfair aid on this test.
