

First Exam

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

16 pts.

1) a) Suppose that demand is perfectly inelastic and that a \$5 excise tax is imposed on the good. Draw a well-labeled diagram showing the market before and after the tax and show how the prices to consumers and to producers change.

b) If the untaxed supply function is $Q_s = -200 + 2P$, what is the taxed supply function?

16 pts.

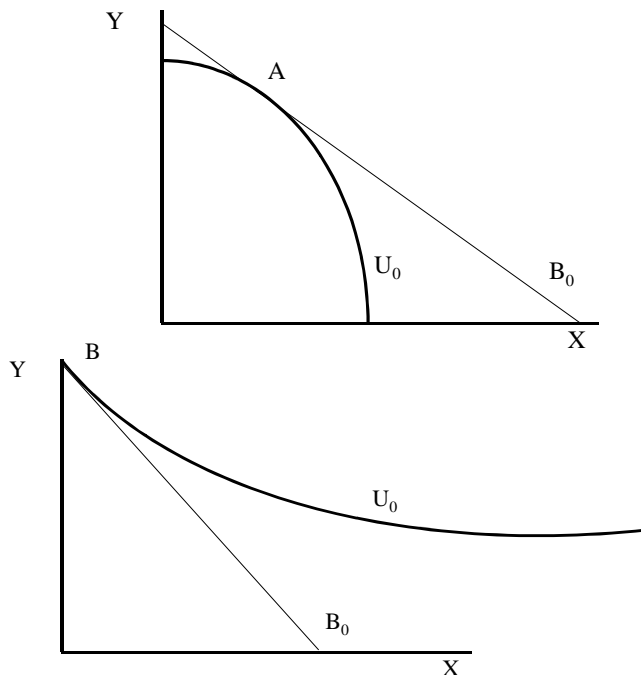
2) True or false. Explain.

a) If Bill and Bob each have specialties where they excel, then trade between Bill and Bob will be mutually beneficial regardless of the terms of trade.

b) It is common for a good's relative and absolute prices to move in opposite directions over time.

16 pts.

3) a) If we are at point A, what (if anything) can be done to increase utility? Explain.



b) If we are at point B, what (if anything) can be done to increase utility? Explain.

20 pts

4) In year 1 $P_x = \$5$ and $P_y = \$10$ and year 2 $P_x = \$6$ and $P_y = \$11$. Moreover, in year 1 $X = 10$ and $Y = 10$ and year 2 $X = 8$ and $Y = 12$.

- What must nominal income equal in each year.
- Draw a well-labeled diagram showing budget lines for each year.
- Compute a price index to measure inflation from year 1 to year 2 and use it to compare real income in each year. Does real income increase or decrease?
- Did you compute a Paasche or Laspreyes index in part c? How would use of the alternative method affect your view of real income changes. (Don't recompute, just comment on the direction of effect.)

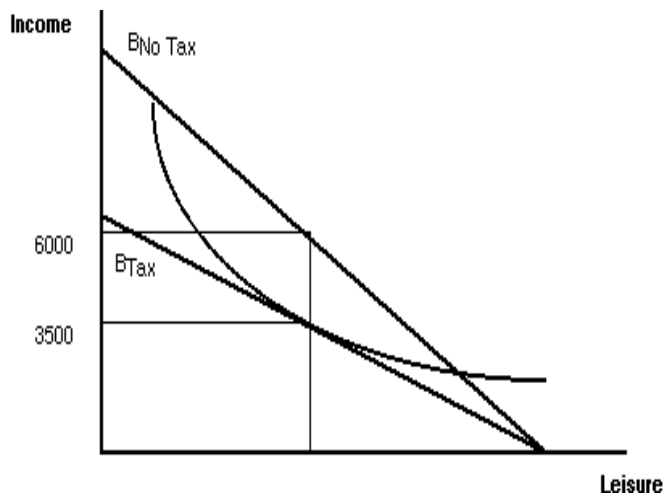
16 pts.

6) Suppose that $AC = 8 - X + (X^2)/4$.

- Find the value of X where utility is maximized and confirm that this is a maximum. Draw a well-labeled diagram of the utility function.
- If X is 3, is MC greater or less than AC ? Explain.

16 pts.

7)



Given the diagram, would the individual prefer the income tax shown or a head tax of 2500 dollars? Why? How would the diagram change if the income tax rate was increased?

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