

Midterm #1: Old Exam Solutions

Multiple Choice Questions

1. D	11. C	21. C	31. B
2. A	12. D	22. A	32. E
3. C	13. C	23. B	33. A
4. E	14. D	24. D	34. C
5. D	15. C	25. D	35. E
6. A	16. D	26. E	
7. E	17. B	27. D	
8. B	18. A	28. C	
9. A	19. C	29. A	
10. E	20. A	30. D	

Short Answer Questions

Note that no work is provided below, only the answers. On an actual exam, providing just an answer may not be enough. E.g., you may have to provide a certain amount of work to receive full credit. If you have questions about this, then feel free to contact Professor Haworth.

Question 1. *Assume that Country A can produce 100 units of corn or 200 units of shoes. Country B can produce 200 units of corn or 500 units of shoes. Show which country has the comparative advantage in producing shoes, and which country has the comparative advantage in producing corn?*

Country A

The opportunity cost of producing shoes is 0.5 units of corn

The opportunity cost of producing corn is 2 units of shoes

Country B

The opportunity cost of producing shoes is 0.4 units of corn

The opportunity cost of producing corn is 2.5 units of shoes

Country B has the comparative advantage in producing shoes, and Country A has the comparative advantage in producing corn

Question 2. Using information provided in the problem - calculate and interpret the income elasticity measures for good A, good B and good C.

- Good A: $\varepsilon_I = \frac{8}{6}$ due to this value being positive, good A is a normal good
due to this value being greater than 1, good A is a luxury
- Good B: $\varepsilon_I = \frac{1}{2}$ due to this value being positive, good B is a normal good
due to this value being less than 1, good B is a necessity
- Good C: $\varepsilon_I = \frac{-2}{5}$ due to this value being negative, good C is an inferior good

Question 3. Using information provided in the problem - calculate and interpret the own price elasticity measures for good A, good B and good C.

- Good A: $\varepsilon_D = \frac{-4}{3}$ due to this value being greater than 1 in absolute value,
good A's own price elasticity is elastic
- Good B: $\varepsilon_D = \frac{-3}{4}$ due to this value being less than 1 in absolute value,
good B's own price elasticity is inelastic
- Good C: $\varepsilon_D = \frac{-1}{3}$ due to this value being less than 1 in absolute value,
good C's own price elasticity is inelastic

Question 4. Assume you want to know how a price decrease affects the total revenue of selling goods A and B. Use the information above to explain how a price decrease would affect the total revenue associated with selling good A, and how a price decrease would affect the total revenue associated with selling good B.

If $P \downarrow$ and a good has an elastic demand, then total revenue increases
If $P \downarrow$ and a good has an inelastic demand, then total revenue decreases

Good A has elastic demand, because the own price elasticity is $-4/3$, which is greater than 1 in absolute value. Therefore, a price decrease leads to an increase in the total revenue associated with selling good A.

Good B has inelastic demand, because the own price elasticity is $-3/4$, which is less than 1 in absolute value. Therefore, a price decrease leads to a decrease in the total revenue associated with selling good B.