

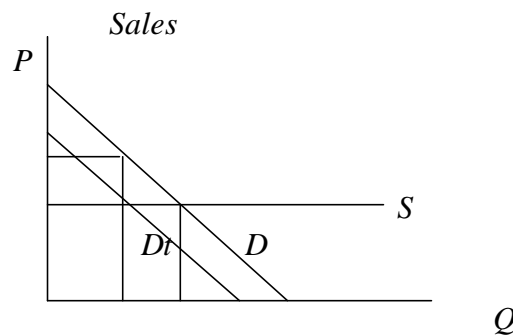
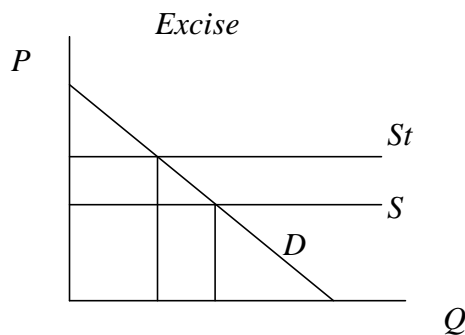
The number of points each question is worth is noted in parentheses.

Multiple Choice and Short Answer

1. (6) Last July, my neighbor Stan bought a Red Oak tree to plant in his yard even though the weather was expected to be extremely hot and dry. Despite heroic efforts to keep the tree well watered, the tree died within weeks. Later, Stan admitted that buying the tree was stupid and an irrational thing to do. Does this seemingly irrational behavior prove that the science of economics is based on a fatally flawed assumption? Please explain.

Economists assume people act rationally ALL the time because it is an assumption that works pretty well when we create models to predict behavior. That does not necessarily mean that we believe they act rationally ever. As long as people act AS IF they were rational, it is good enough for us.

2. (6) A new tax is being considered by the legislature for a good where supply is perfectly elastic and demand is downward sloping. To have the minimum impact on consumers, the legislature should
- use a sales tax.
 - use an excise tax.
 - use either one since consumers will pay the entire economic incidence with either tax.
 - use either one since producers will pay the entire economic incidence with either tax.



Either way, the buyer ends up paying 100% of the tax and the seller gets what they got before.

3. (6) In 2002, the price of a box of Oreo cookies was \$2 and the price of a gallon of milk was \$3. In 2003, the price of a box of Oreos was \$3 and the price of a gallon of milk was \$4. Which of the following is true:
- The absolute price of Oreos increased and the relative price of Oreos increased.*
 - The absolute price of Oreos increased and the relative price of Oreos decreased.
 - The absolute price of Milk increased and the relative price of Oreos decreased.
 - The absolute price of Milk increased and the relative price of Milk increased.

4. (6) Ed and Todd are roommates. It takes Ed 2 hours to do a load of laundry and 3 hours to make a meal. It takes Todd 1 hour to do a load of laundry and 1 hour to make a meal.

To gain as much as possible from specialization and exchange ___Ed_____ should specialize in doing laundry and ___Todd_____ should specialize in cooking?

One Laundry costs Ed 2/3 of a meal and costs Todd one Meal. So Ed has the comparative advantage in producing Laundry.

5. (6) An indifference curve reveals:
- the cost of different bundles of goods a person can buy.
 - an individual's consumption possibilities.
 - which bundle of goods an individual will choose.
 - the marginal value of one good in terms of another good.*

6. (6) Other than differing opportunity costs of production (i.e. comparative advantage), give one other explanation that might allow people to gain from trade.

Different preferences or Economies of scale. See "Why People Trade" near the end of Chapter 2 in Landsburg.

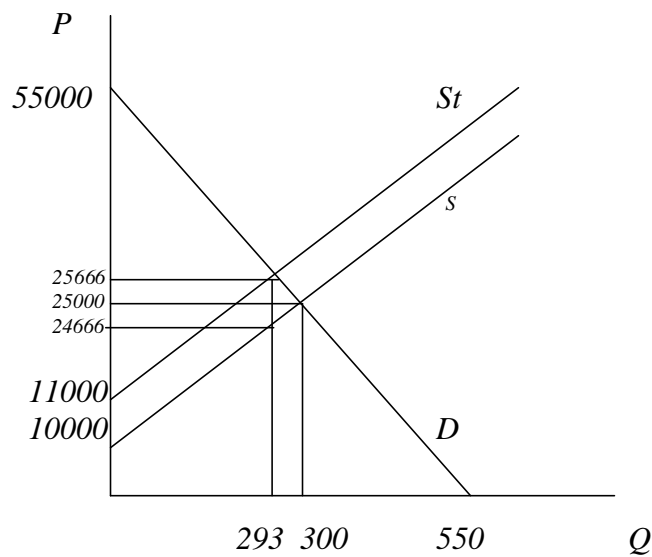
7. (6) that indifference curves do not cross follows from which preference assumptions?
- the transitivity and nonsatiation assumptions of consumer preferences.*
 - the nonsatiation and completeness assumptions of consumer preferences.
 - the transitivity and convexity assumptions of consumer preferences.
 - the convexity and nonsatiation assumptions of consumer preferences.

Problem Solving

8. Let the supply and demand for SUVs in Texas be the following:
 Supply: $P = 10,000 + 50Q$
 Demand: $P = 55,000 - 100Q$

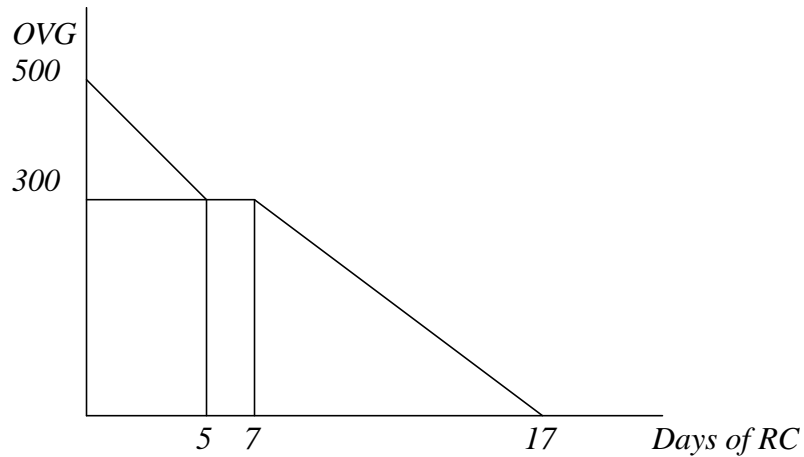
Because of the budget crisis, state legislators are debating enacting a new \$1000 excise tax on SUVs. You have been hired to analyze the situation to determine the effect of the tax on the market for SUVs.

- a. (8) Graph supply and demand below. Be sure to label the Price and Quantity intercepts for the curves and the equilibrium P and Q.
- b. (8) Add to the graph the effect of the tax. Make sure you include the new equilibrium. Then explain the economic incidence of the tax.



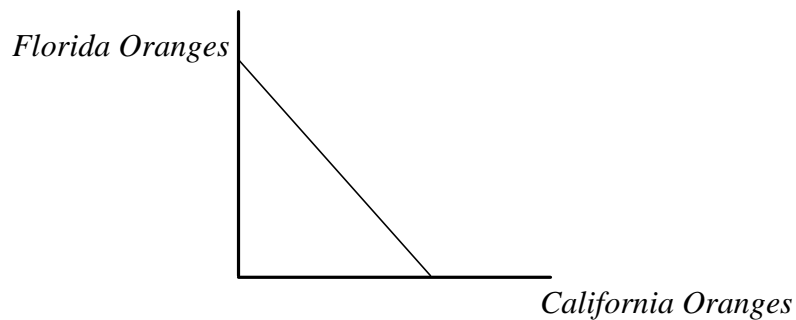
*Consumers pay \$666.67 of the tax.
 Producers pay \$333.33 of the tax.*

9. (10) George and Laura are renting a car and taking a vacation. They have \$500 to spend on the vacation and will buy only two goods, days using a rental car and Other Vacation Goods (OVG). The price of OVG is \$1 per unit. The rental car costs \$40 per day for the first 5 days of the rental, then they get two free days, then the price drops to \$30 per day for any days after the first 7. Draw their budget constraint with days of car rental on the horizontal axis. Please label all relevant features of the graph (intercepts, slopes etc.).



9. (8) Below, draw an indifference curve for Florida and California grown oranges. Note that oranges from different states are indistinguishable from each other. What kind of goods are these?

They are Perfect Substitutes



10. Cody only buys two goods, Macaroni and Cheese (M&C) and Raman Noodles (RN).

In 2003, M&C cost \$3 per box and Raman Noodles cost \$.50 per packet and he bought 10 boxes of M&C and 24 packets of Raman Noodles.

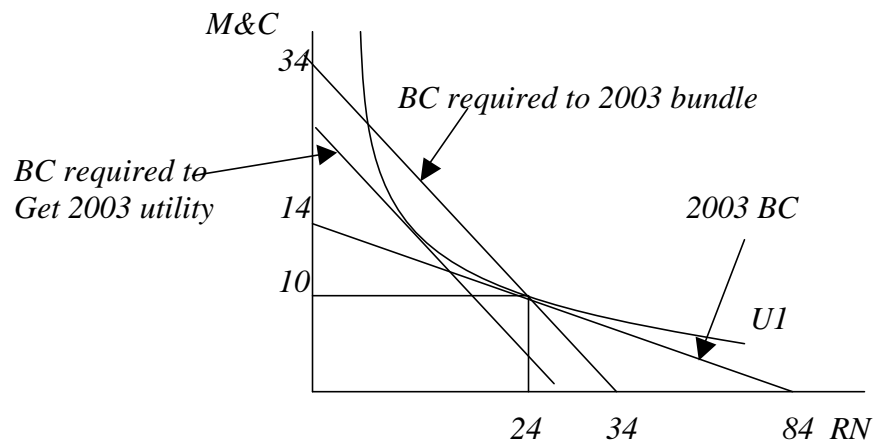
This year, he has not gone shopping yet, but the price of M&C is \$1.50 and the price of Raman Noodles is \$1.50.

a. (7) Create a Lapeyres Index to calculate the rate of inflation for Cody's consumption choices.

The 2003 bundle cost Cody \$42. In 2004, the same bundle would cost \$51.

Inflation = $(51-42)/42 = 9/42 = 21.43\%$.

b. (7) Fill in the graph below and use it to explain why the Laspeyres index may not accurately measure the level of inflation he experiences once he goes shopping.



According to the Laspeyres index, it would require 23.43% more income to afford the same (2003) bundle in 2004. But with a different price ratio, Cody would substitute Mac and Cheese for Raman Noodles and would require less income to be able to get the same amount of utility (U_1) in 2004 as he had in 2003. So maintaining the same utility would require less than 23.43% more income.

11. (10) “Ok, so there may not be any weapons of mass destruction in Iraq and the country was pretty much destroyed by the invasion. In fact, US forces probably inflicted more damage to Iraqi infrastructure than was necessary. However, the extra damage only means that there will be more rebuilding which will create even more employment.”
– Dirk Cheney, Undersecretary of Defense

Explain how Hazlitt would respond to the above quote.

He would probably say something like: “Look, the infrastructure that was destroyed had value. The country is now spending resources to rebuild what they already had. If not for the destruction, the same resources could be used to build something else of value (schools, hospitals etc) which the country would then have on top of the infrastructure they are now replacing.”