

Tutorial Questions

Question 1. State whether True or False and explain:

- a. If a consumer faces a zero price for good x, the budget line is parallel to the x-axis.
- b. A good that has an income elasticity of demand less than zero is called a Giffen good.
- c. If there are constant returns to scale, the long-run average cost curve must be U-shaped.

Question 2. Melissa buys an iPod for \$120 and gets a consumer surplus of \$80.

- a. What is her willingness to pay?
- b. If she had bought the iPod on sale for \$90, what would her consumer surplus have been?
- c. If the price of an iPod were \$250, what would her consumer surplus have been?

Question 3. A recent study found that the demand and supply schedules for Frisbees are as follows:

Price per Frisbee	Quantity Demanded	Quantity Supplied
\$11	1 million Frisbees	15 million Frisbees
\$10	2	12
\$9	4	9
\$8	6	6
\$7	8	3
\$6	10	1

- a. What are the equilibrium price and quantity of Frisbees?
- b. Frisbee manufacturers persuade the government that Frisbee production improves scientist's understanding of aerodynamics and thus is important for national security. A concerned Congress votes to impose a price floor \$2 above the equilibrium price. What is the new market price? How many Frisbees are sold?
- c. Irate college students march on Washington and demand a reduction in the price of Frisbees. An even more concerned Congress votes to repeal the price floor and impose a price ceiling of \$1 below the former price floor. What is the new market price ? How many Frisbees are sold?

Question 4. Consider a production function of the following form:

$$X = 100L^{1/3},$$

where X = output and L = input of labour (assuming other inputs are fixed).

- a. Construct a figure for inputs of $L = 0, 1, 2, 3$, and 4 .
- b. Explain whether this production function shows diminishing returns to labour. What values would the exponent need to take for this production function to exhibit increasing returns to labour?