

1. Suppose the country of Happyland has the following production possibilities for toys and ice cream when using all resources efficiently:

Toys	0	5	10	15	20
Ice Cream	100	90	70	40	0

- (a) (4 points) Graph the production possibilities frontier. Label the portions of the figure that represent efficient levels of production, inefficient levels of production, and impossible levels of production.

- (b) (4 points) What is the marginal opportunity cost of producing the 40th ice cream?

- (c) (4 points) What happens to the opportunity cost of ice cream as Happyland decides to produce more ice cream?

- (d) (4 points) Suppose a new dietary supplement is invented for dairy cows which increases their ability to produce milk. Can this new invention lead to an increase in production of toys? Describe and illustrate the effect on the production possibilities frontier.

5. (5 points) Occasionally, computer chip manufacturers such as Intel and AMD design new faster computer processors (a small chip in a computer that does all the computing). When the new processors are released, fewer consumers want to purchase computers that include the older processors, wanting instead to postpone their computer purchase to get one with the newer, faster processors. At the same time, computer manufacturers such as Dell and Gateway, increase their production of computers that use the old processors, in order to sell away their inventory of the old computer chips. Describe and illustrate the impact on the market for computers that use the old processors.
6. (5 points) Over the last several years, technological innovations in recycling has made it less costly to recycle paper and use recycled paper in the production of new products. Describe and illustrate the impact on the market for paper made from recycled materials.
7. (5 points) Suppose the equilibrium price of gasoline increases and quantity of gasoline consumed in the United States increases. What might cause this to happen? Provide a real world example and illustrate the impact with appropriate graphs.

8. (5 points) Suppose financial investors expect the U.K. pound sterling to appreciate against the U.S. dollar over the next year. Describe and illustrate the impact on *today's* value of the U.S. currency relative the U.K. pound sterling.
9. (5 points) Suppose there is a decrease in the average level of income in South Korea, and that the United States is a significant trading partner. Describe and illustrate the impact on the value of the U.S. dollar relative to the Korean Won.
10. (5 points) Suppose there is a general movement of manufacturing from the United States to India, which includes raw materials such as steel, textiles, rubber and plastics, etc. Suppose that as a consequence, the United States demand for imports from India increases. Describe and illustrate the impact on value of the U.S. currency relative to the Indian Rupee.

For the problems below, suppose an economy produces only televisions and computers, and the prices and quantities that prevailed for the last two years were given by:

	2012	
	Price	Quantity
Televisions	\$350	1050
Computers	\$650	1500
	2013	
	Price	Quantity
Televisions	\$400	1200
Computers	\$700	1800

15. (5 points) Compute the growth rate of real GDP using 2012 as a base year.
16. (5 points) What was the inflation rate from 2012 to 2013?
17. Suppose in 2012 you earned \$10 per hour working full time. In 2013 you earned \$12 per hour working full time.
- (a) (5 points) What was the growth rate of your nominal wages? In terms of purchasing power of wages, did you earn more in 2012 or 2013?
- (b) (5 points) What was the growth rate of your real wages? In terms of purchasing power of wages, did you earn more in 2012 or 2013?