

1. The fictional economy of Technoland produces only smartphones and tablets. Suppose the following production possibilities frontier represents quantities of each when using all of its resources efficiently.

Smartphones	0	15	30	45	60	75
Tablets	45	42	36	27	15	0

- (a) (5 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) (6 points) Compute the marginal opportunity costs for each positive level of smartphones given in the table.
- (c) (5 points) Suppose an economy is producing efficiently. Is it possible to increase production of smartphones without decreasing production of tablets? Illustrate with the above production possibilities frontier.
- (d) (6 points) Suppose there is an improvement in microprocessor technology that makes it possible to produce smaller, faster processors with less labor time. Describe and illustrate the impact on the production possibilities frontier.

- (6 points) Suppose people **expect** that interest rates (the cost of borrowing money) will increase in the near future. Describe and illustrate the impact of this expectation on the market for automobiles.
- (6 points) Describe and illustrate the impact on the market for airline flights as the holiday season begins.
- (6 points) Suppose the government of India gives subsidies to farmers to pay for irrigation and new roads to make farming more productive. Describe and illustrate the impact on the market for agricultural products in India.

5. (6 points) The tourist season in Maine comes to an end in the early autumn season. Lobster populations increase at the same time of year, improving lobster fishing conditions. Describe and illustrate the impact on the market for lobster.
6. (6 points) Suppose there is an increase in the price of new homes and an increase in quantity sold. Describe and illustrate what must happen in the market for new homes to make this happen. Provide a real world example of what could cause such a change.
7. (6 points) Suppose there is an decrease in the price of cheese and an increase in quantity sold. Describe and illustrate what must happen in the market for milk to make this happen. Provide a real world example of what could cause such a change.

8. (6 points) Suppose there is an decrease in interest rates in Japan and no change in interest rates in South Korea. Describe and illustrate the impact on the exchange rate between the Japanese Yen (JPY) and the South Korean Won (KRW).
9. (6 points) Suppose people expect the stocks in the United Kingdom will decrease in value as U.K. companies lose full access to European markets following the exit from the European Union. Describe and illustrate the impact on the exchange rate between the U.K. Pound Sterling (GBP) and the Euro (EUR).
10. (6 points) Suppose there is an increase in the average level of income in Argentina, and that Brazil is a significant trading partner. Describe and illustrate the impact on the exchange rate between the Brazilian *Real* (BRL) and the Argentine Peso (ARS).

11. Suppose an economy produces only cabbages and beets, and the prices and quantities that prevailed for 2014 and 2015 were given by:

	2014		2015	
	Price	Quantity	Price	Quantity
Cabbages	\$1.50	14	\$1.75	16
Beets	\$2.00	20	\$2.20	25

- (a) (6 points) Define real GDP and nominal GDP, and describe the difference. Which is of more interest in economics and why?
- (b) (6 points) Compute the growth rate of production using 2015 as a base year.
- (c) (6 points) What was the inflation rate from 2014 to 2015?
- (d) (6 points) Suppose you earned \$10 per hour in 2014 and you earned \$12 per hour in 2015. Compute the real wage for each year. Which year did your wages have greater purchasing power? Explain.