

## ECO 101: Practice Worksheet 1

### Conceptual Questions:

1. Define the difference between economics goods and economics bads.
2. What are the four factors of production? Describe each with examples.
3. What is scarcity? What are the three effects of scarcity?
4. What is opportunity cost? Describe with an example.
5. Define Marginal Cost and Marginal Benefit. Illustrate these concepts with an example.
6. What does it mean to make Decision at the Margin? What is Efficiency?
7. What is a production possibilities frontier? What are the three assumptions we hold for studying a PPF?
8. Elaborately differentiate between Constant Opportunity Cost PPF and Increasing Opportunity Cost PPF (include examples, values, graphs etc.)
9. What is the Law of Increasing Opportunity Cost? Explain with an example.
10. Distinguish between productive efficiency and productive inefficiency.

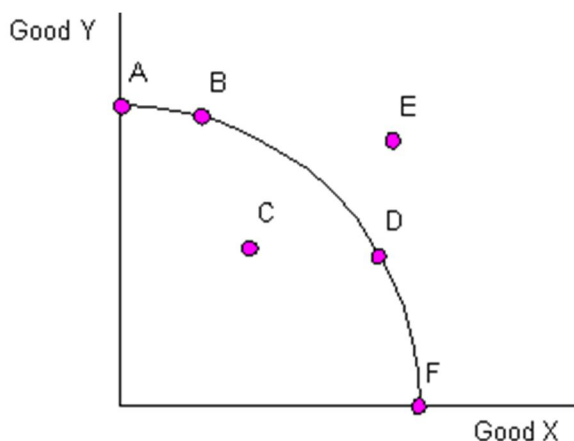
### Problem Solving:

1. Suppose you go to an all-free pizza buffet at your friend's house. It's been a long day, so you are extremely hungry and cannot wait to devour the free pizza. However, you are also worried that if you keep consuming too much pizza, you'll begin to feel sick with every bite. Consider the following Marginal Benefit and Marginal Cost schedule for consuming pizza:

Quantity of pizza slices consumed	Marginal Benefit	Marginal Cost
1	30	0
2	25	5
3	20	10
4	15	15
5	10	20
6	5	25
7	0	30

- a. Sketch MB and MC on the same graph.
- b. Identify the point of efficiency.
- c. Sketch the area of Net Benefit if we consume up to efficient point.

2. Consider the Production Possibilities Frontier below:



- a. Which bundle(s) is (are) productively efficient?
  - b. Which bundle(s) is (are) productively inefficient?
  - c. Which bundle(s) is (are) is unattainable?
  - d. What would cause the PPF to shift out?
  - e. Suppose the country acquires new technology that helps the labor to produce more X per hour. Show the effect of this on the PPF.
3. Consider an economy with only two individuals – Andy and Carl. They each produce two goods – books and rockets. The economy has no currency, and all goods are exchanged through barter system.

Andy's production possibilities schedule:

Bundle	Books	Rockets
A	0	80
B	30	40
C	60	0

Carl's production possibilities schedule:

Bundle	Books	Rockets
A	0	50
B	50	25
C	100	0

- a. Who has comparative advantage in the production of books? Who has comparative advantage in the production of rockets?
- b. Suppose initially, both produced at their respective point B. After specialization, they decided to set the terms of trade at 30 Rockets = 40 Books. If Andy wants 40 books from Carl, what are their respective gains from trade?