Topic 2 – Specialization and Trade

Big Question: Why do we trade with each other?

I.   Specialization According to Comparative Advantage

Example: Cindy wants to paint the living room and Jim wants to paint the dining room, and they both want to landscape the yard. They each have 4 hrs. (240min.) this week work on the house.

Time Needed to

	Paint 1 Room	Plant 1 Flower
Jim	120 min.	30 min.
Cindy	80 min.	10 min.

1.   Absolute Advantage: person with the lowest _____ cost.

     Who has the absolute advantage in painting?

2.   No Specialization: How many flowers will they be able to plant if they each paint one room?

                                                                                  Total Flowers: _____

3.   Comparative Advantage: person with the lowest _____ cost.

     What is the opportunity cost of each activity?

Opportunity Cost of

	1 Room	1 Flower
Cindy		
Jim		

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In the time it takes to produce one _____ how many _____ could be produced?

     Who has the comparative advantage in painting?

4.   Specialization: How many flowers will they be able to plant if they specialize according to comparative advantage?

                                                                                  Total Flowers: _____   1

II.   Production, Specialization, and Trade

Example: Suppose there are two neighbors - Farmer and Rancher. There are only two goods that they like to consume – meat and potatoes. For simplicity, we'll say that the only input need to produce meat and potatoes is time. Farmer and Rancher each have 40 hours per week to work.

Time Needed to Produce
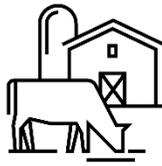
	1 lb. Meat	1 lb. Potatoes
Farmer	20 hrs.	10 hrs.
Rancher	1 hr.	8 hrs.

1. Who has the absolute advantage in producing meat? What about potatoes?

    Meat: Potatoes:

2. Production Possibilities Frontier (PPF): A graph showing all combinations of two that an individual can produce given their resource constraint.

Meat (lbs.)

Note: The slope of the production possibility frontier is the opportunity cost of the 'x-axis good', which in this case is potatoes.

Potatoes (lbs.)

3. How much meat and potatoes would be produced if they both spent half their time (20 hrs) producing each product?

4. Pareto Efficiency or Optimality: is impossible to make someone better off without making anyone worse off.

Good Y

Good X
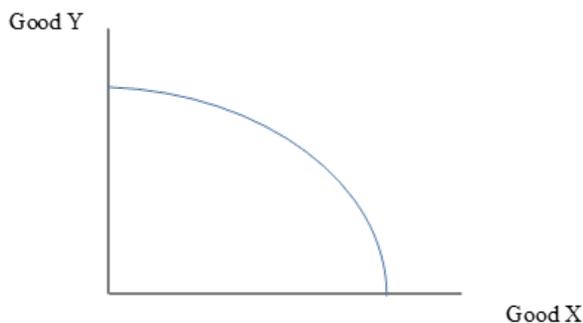
Productive Efficiency
It is impossible to produce (consume) more of one good without producing less of another.

Allocative Efficiency
The mix of goods being produced (consumed) brings the greatest amount of happiness.

5. What is the <u>opportunity cost</u> of each activity?

Time Needed to Produce

	1 lb. Meat	1 lb. Potatoes
Farmer	20 hrs.	10 hrs.
Rancher	1 hr.	8 hrs.

Opportunity Cost of

	1 lb Meat	1 lb. Potatoes
Farmer		
Rancher		

6. Joint Production Possibility (PPF): A graph showing all the combinations of two goods that a society can produce given the resource constraint.

Meat (lbs.)

Potatoes (lbs.)

Specialization makes us clearly better off, by allowing us to produce _____ products with the same amount of resources. Specialization _____ trade.

III.   Trade

How can we think about prices in this context? The "price" will be the rate at which they can exchange one good for another.

<u>Market for Potatoes</u>

Buyer: Seller:

_____ ≤ 1 lb. Potatoes ≤ _____

IV.   Economy-Wide Production

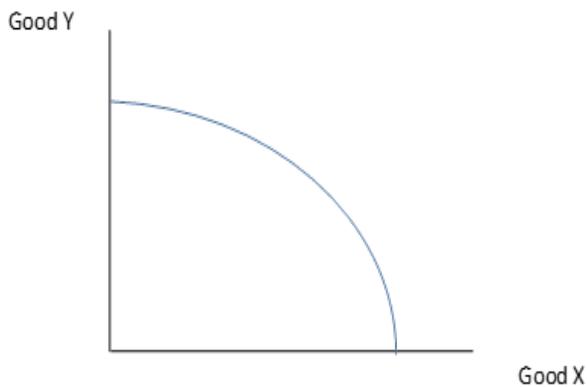1. What happens as we add more producers?   Diminishing Marginal Returns: *The cost of producing each additional unit of a good increases as production increases.*
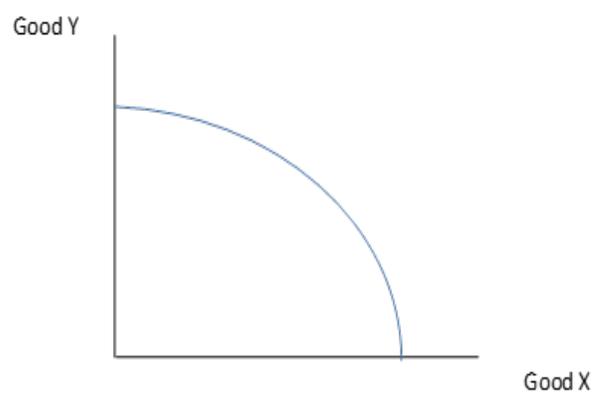
2. Shifts in the PPF.

Factors that shift the PPF

1.

2.

3.

4.

Show the effect of the invention of a new technology to produce Good X.

Show the effect of a hurricane that destroys factories for both Good X and Good Y.

Good Y

Good X

Good Y

Good X

V.   Practice Problem

Use the information in the table below to answer the following questions.

| Production Time		
	1 Burger	**1 Milkshake**
Tony	9 min.	6 min.
Stella	12 min.	4 min.

a. Who has the absolute advantage in producing burgers?

b. Fill in the table describing the opportunity
    cost of producing each good for each person.

Opportunity Cost of

	1 Burger	1 Milkshake
Tony		
Stella		

c. Who has the comparative advantage in producing burgers?

d. Assuming each person has 36 min, plot the joint production possibility frontier.

Burgers

Milkshakes
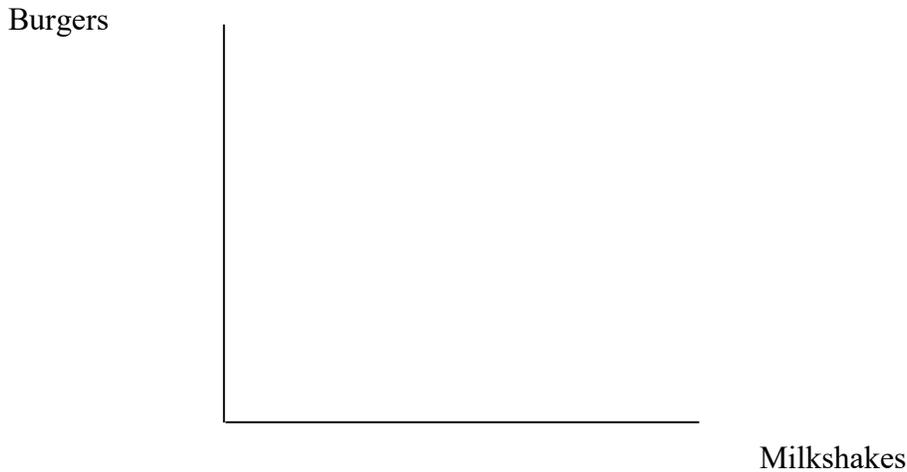
e. For what range of prices for <u>burgers</u> will Tony and Stella both be better off specializing and
    trading.

_____ $\leq$ 1 Burger $\leq$ _____

VI.   Assignments

1. Video Assignment due on Brightspace at 11:00pm on 1/17/2020
2. Problem Set 2 in class on 1/23/19.