

**PS 160 Intro to World Politics  
Comparative Advantage and Gains from Trade**

A great disaster has befallen Ann Arbor, and all of the pizza places and bars have closed. Two fraternities, ABC and XYZ, consume *only* pizza and beer, and they must now each produce all of their own food. Through great luck, each frat has all the necessary skills, ingredients, and equipment to make both pizza and beer. Each fraternity has 50 members, and each member contributes ten hours of work a week to the production of food (i.e., each group has *500 hours of labor* a week).

1. ABC can produce a pizza using 2 hours of labor, and it can produce a pitcher of beer using 5 hours of labor. XYZ needs 4 hours to produce a pizza, but it can make a pitcher of beer using 1 hour of labor. Complete the chart at right.

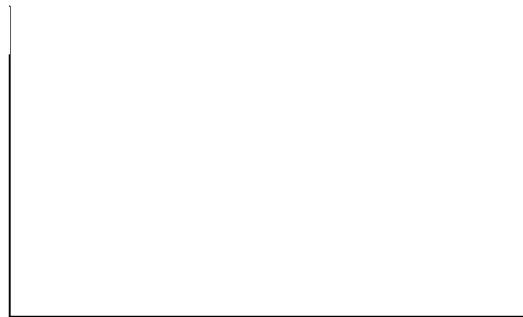
	Hrs/pizza	Hrs/beer
ABC		
XYZ		

2. Fill in the tables below. For each value given, determine how many hours of labor that requires, then determine how many of the alternate item can be produced with any remaining labor. (Add across to find the total number of units produced in that combination.) Then graph the tradeoff between foods for each frat. (Beer is in pitchers, pizza in whole pies.) Remember, each frat has 500 hours of labor available.

**ABC**

Pizzas	Beer	Total units Produced
0		
	0	
50		
	20	

Pizza



Beer

How many pizzas must ABC give up for one pitcher of beer? \_\_\_\_\_

How many pitchers of beer must ABC give up for one pizza? \_\_\_\_\_

**XYZ**

Pizzas	Beer	Total units Produced
0		
	0	
100		
	300	

Pizza



Beer

How many pizzas must ABC give up for one pitcher of beer? \_\_\_\_\_

How many pitchers of beer must ABC give up for one pizza? \_\_\_\_\_

Where does this tradeoff rate show up on the graph? \_\_\_\_\_

3. Which food item will be produced the most in ABC? \_\_\_\_\_ Which in XYZ? \_\_\_\_\_

Assuming that people (even college students) can't live on *only* pizza or *only* beer, how much of each should each group produce? (HINT: Think about the fact that they're hungry teenage guys who have nothing else to eat.)

ABC	Pizza	_____	Beer	_____	Total units	_____
XYZ	Pizza	_____	Beer	_____	Total units	_____
TOTAL systemic production						_____

4. It's pretty difficult to feed 50 guys on 20, 50, or even 100, pizzas a week. The leader of XYZ, hungry and slightly drunk, staggers into the full but (unfortunately) sober leader of ABC. XYZ's leader invites ABC's leader over to commiserate over a pitcher of beer. During the discussion, they realize that the current situation is suboptimal for both. They decide to trade some of their production.

Which group should produce pizza? \_\_\_\_\_ How much should be produced? \_\_\_\_\_

Which group should produce beer? \_\_\_\_\_ How much should be produced? \_\_\_\_\_

What is the new total production (beer + pizza) in this economic system? \_\_\_\_\_

How does that compare to previous total systemic production, before trade? What happened, and why? \_\_\_\_\_

\_\_\_\_\_

What's this result called, when each producer produces only (or largely) his/her most efficiently produced good? \_\_\_\_\_

What determines who's the most efficient producer of a good? \_\_\_\_\_