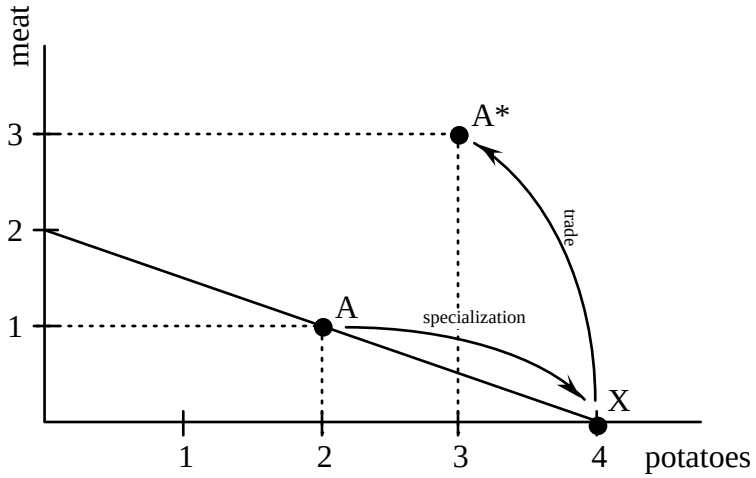
University of California, Davis
Department of Economics
ECONOMICS 1A

Spring 2010 L. Jay Helms

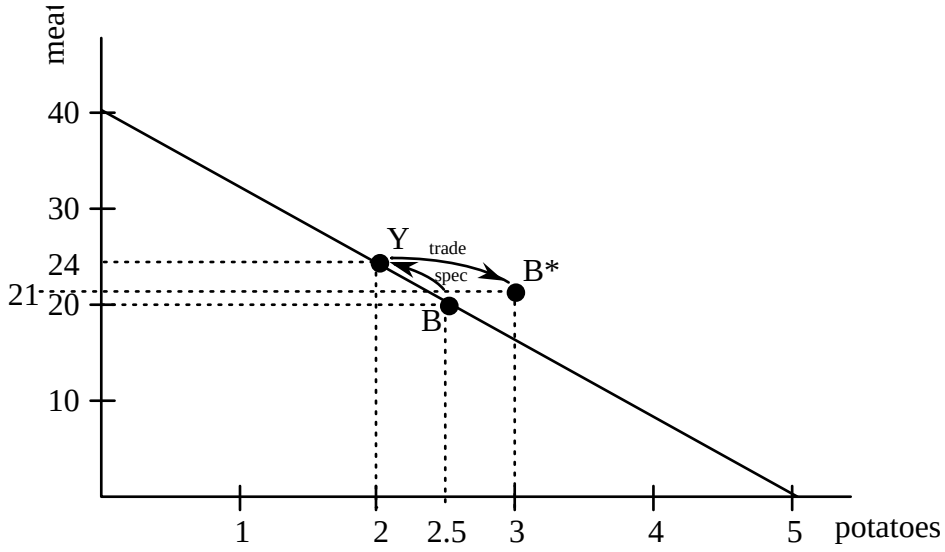
The Gains from Trade

	Hours Needed to Make		Amount Produced in 40 Hours	
	One Pound of Meat	One Pound of Potatoes	Pounds of Meat	Pounds of Potatoes
Farmer	20 hours	10 hours	40/20 = 2 lbs	40/10 = 4 lbs
Rancher	1 hour	8 hours	40/1 = 40 lbs	40/8 = 5 lbs

Absolute Advantage*: The ability to produce a good using fewer inputs than another producer*. (Compares producers' **productivity**.) The Rancher has an absolute advantage in the production of both goods because she produces a unit of either good in less time.



Production Possibilities Frontier for Farmer



Production Possibilities Frontier for Rancher

***Opportunity Cost**: whatever must be given up to obtain some item.*

	Opportunity Cost	
	of One Pound of Meat	of One Pound of Potatoes
Farmer	20 hours produces 20/10 = 2 pounds of potatoes	10 hours produces 10/20 = 1/2 pound of meat
Rancher	1 hour produces 1/8 = 1/8 pound of potatoes	8 hours produces 8/1 = 8 pounds of meat

Note that the opportunity cost of potatoes (the good on the horizontal axis) is the slope of the production possibilities frontier.

***Comparative Advantage**: The ability to produce a good at a lower opportunity cost than another producer.* (Compares producers' **opportunity cost**.)

- The Farmer has a comparative advantage in the production of potatoes because he has the lower opportunity cost of potatoes than does the Rancher.
- The Rancher has a comparative advantage in the production of meat because she has the lower opportunity cost of meat than does the Farmer.

Summary of the Gains from Trade

Without Trade	pounds of meat	pounds of potatoes
Farmer [point A]	1	2
Rancher [point B]	20	2.5
Total Consumption	21	4.5

Specialization	pounds of meat	pounds of potatoes
Farmer [point X]	0	4
Rancher [point Y]	24	2
Total Consumption	24	6
	(a gain of 3 pounds)	(a gain of 1.5 pounds)

Specialization & Trade	pounds of meat	pounds of potatoes
Farmer [point A*]	0 produced	4 produced
	+ 3 purchased	- 1 sold
	= 3	= 3
	(a gain of 2 pounds)	(a gain of 1 pound)
Rancher [point B*]	24 produced	2 produced
	- 3 sold	+ 1 purchased
	= 21	= 3
	(a gain of 1 pound)	(a gain of .5 pound)