

# Mischief Managed!

Two countries (Veggieland and Fruitland) are trying to decide if they should trade with each other. Below are their Production Possibilities Tables for the each country's domestic production of Artichokes and Bananas.

Veggieland Production Possibilities Table						
	Production Alternatives					
Product	A	B	C	D	E	F
Artichokes	10000	8000	6000	4000	2000	0
Bananas	0	500	1000	1500	2000	2500

Fruitland Production Possibilities Table						
	Production Alternatives					
Product	T	U	V	W	X	Y
Artichokes	5000	4000	3000	2000	1000	0
Bananas	0	1500	3000	4500	6000	7500

a) Who has an absolute advantage in Artichokes? In Bananas?

Artichokes: Veggieland  
Bananas: Fruitland

b) Graph the two Production Possibilities Tables on the same graph. Label each point with the corresponding letter.

c) What are the two countries' comparative cost ratios?

Veggieland:  $10000A \equiv 2500B$  OR  $4A \equiv 1B$  and  $1A \equiv 1/4B$

Fruitland:  $5000A \equiv 7500B$  OR  $2A \equiv 3B$  OR  $1A \equiv 3/2B$  and  $2/3A \equiv 1B$

d) Could a trade agreement be reached that would be beneficial for both countries? What should each specialize in? Explain.

Yes, if each specializes in what they have a comparative advantage, then they could each produce more at a lower opportunity cost.

Veggieland should produce Artichokes because its opportunity cost is less than Fruitland. (Veggieland opportunity cost for Artichokes is  $1/4B$  while Fruitland opportunity cost for Artichokes is  $3/2B$  (1.5B)).

Fruitland should produce Bananas because its opportunity cost is less than Veggieland. (Fruitland opportunity cost for Bananas is  $2/3A$  while Veggieland opportunity cost for Bananas is  $4A$ ).

e) Assuming a trade agreement can be reached, would a trade on the terms of 1 Artichoke for 1 Banana be beneficial to both? Explain.

Trade on  $1A \equiv 1B$  would benefit both Veggieland and Fruitland because if Veggieland specializes in Artichokes they would reduce their opportunity cost for Bananas from  $4A$  to  $1A$ . Fruitland would also benefit because if they specialize in Bananas they would reduce their opportunity cost for Artichokes from  $1.5B$  to  $1B$ .

f) Before trading, Veggieland was producing at point C while Fruitland was producing at point W. What will each country gain from this trade (1 Artichoke  $\equiv$  1 Banana)? Explain and show all work.

f) Since Veggieland will produce ONLY artichokes they will produce 10000 A (therefore 0 Bananas). If Veggieland strives to have the same number of artichokes as before trade (6000A) then they will trade away up to 4000 artichokes. At a rate of  $1A \equiv 1B$ , they would receive up to 4000 bananas. That is a gain of 3000 bananas than when they produced it themselves.

Fruitland will produce only bananas, 7500B. To keep the same number as before trade (4500B) they will have up to 3000 bananas to trade away to receive up to 3000 artichokes. With this trade they will have 1000 more artichokes than before when they were self-sufficient.

Since Fruitland only has a surplus of 3000 bananas, Veggieland will only trade 3000 artichokes, allowing Veggieland to keep 7000A instead.

	<u>Veggieland</u>		<u>Fruitland</u>	
	<u>Artichokes</u>	<u>Bananas</u>	<u>Artichokes</u>	<u>Bananas</u>
<i>Before Trade</i>	6000	1000	2000	4500
<i>After Trade</i>	7000	3000	3000	4500
<i>Net Gain</i>	1000	2000	1000	0