■ PROBLEMS Chapter 6

1. The following problem will help you understand the principle of comparative advantage and the benefits of specialization. A tailor named Hart has the production possibilities table for trousers and jackets as given. He chooses production alternative D.

HART'S PRODUCTION POSSIBILITIES TABLE

	Production alternatives					
Product	**A**	**B**	**C**	**D**	**E**	**F**
Trousers	75	60	45	30	15	0
Jackets	0	10	20	30	40	50

Another tailor, Schaffner, has the following production possibilities table and produces production alternative E.

SCHAFFNER'S PRODUCTION POSSIBILITIES TABLE

	Production alternatives						
Product	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Trousers	60	50	40	30	20	10	0
Jackets	0	5	10	15	20	25	30

a. To Hart,

(1) the cost of one pair of trousers is _____ jackets

(2) the cost of one jacket is _____ pairs of trousers

b. To Schaffner,

(1) the cost of one pair of trousers is _____ jackets

(2) the cost of one jacket is _____ pairs of trousers

c. If Hart and Schaffner were to form a partnership to make suits,

(1) _____ should specialize in the making of trousers because he can make a pair of trousers at the cost of _____ of a jacket while it costs his partner _____ of a jacket to make a pair of trousers.

(2) _____ should specialize in the making of jackets because he can make a jacket at the cost of _____ pairs of trousers while it costs his partner _____ pairs of trousers to make a jacket.

d. Without specialization, Hart and Schaffner were able to make 50 pairs of trousers and 50 jackets. If each specializes completely in the item in the production in which he has a comparative advantage, their combined production will be _____ pairs of trousers and _____ jackets. Thus the gain from specialization is _____

_____.

e. When Hart and Schaffner come to divide the income of the partnership between them, the manufacture of a pair of trousers should be treated as the equivalent of from _____ to _____ jackets (or a jacket should be treated as the equivalent of from _____ to _____ pairs of trousers).

2. The countries of Lilliput and Brobdingnag have the production possibilities tables for apples and bananas shown below.

Note that the costs of producing apples and bananas are constant in both countries.

LILLIPUT PRODUCTION POSSIBILITIES TABLE

	Production alternatives					
Product (lbs)	**A**	**B**	**C**	**D**	**E**	**F**
Apples	40	32	24	16	8	0
Bananas	0	4	8	12	16	20

BROBDINGNAG PRODUCTION POSSIBILITIES TABLE

	Production alternatives					
Product (lbs)	**A**	**B**	**C**	**D**	**E**	**F**
Apples	75	60	45	30	15	0
Bananas	0	5	10	15	20	25

a. In Lilliput the cost of producing

(1) 8 apples is _____ bananas

(2) 1 apple is _____ bananas

b. In Brobdingnag the cost of producing

(1) 15 apples is _____ bananas

(2) 1 apple is _____ bananas

c. In Lilliput the cost of producing

(1) 4 bananas is _____ apples

(2) 1 banana is _____ apples

d. In Brobdingnag the cost of producing

(1) 5 bananas is _____ apples

(2) 1 banana is _____ apples

e. The cost of producing 1 apple is lower in the country of _____ and the cost of producing 1 banana is lower in the country of _____.

f. Lilliput has a comparative advantage in the production of _____ and Brobdingnag has a comparative advantage in the production of _____.

g. The information in this problem is not sufficient to determine the exact terms of trade, but the terms of trade will be greater than _____ apples for 1 banana and less than _____ apples for 1 banana. Put another way, the terms of trade will be between _____ bananas for 1 apple and _____ bananas for 1 apple.

h. If neither nation could specialize, each would produce production alternative C. The combined production of apples in the two countries would be _____

apples and the combined production of bananas would be _____ bananas.

(1) If each nation specializes in producing the fruit for which it has a comparative advantage, their combined production will be _____ apples and _____ bananas.

(2) Their gain from specialization will be _____ apples and _____ bananas.

3. Use the following table that shows 10 different currencies and how much of each currency can be purchased with a U.S. dollar.

		Currency per U.S. $		
Country	**Currency**	**Year 1**	**Year 2**	**A or D**
Brazil	Real	0.85	0.91	_____
Britain	Pound	0.65	0.59	_____
Canada	Dollar	1.41	1.51	_____
France	Franc	5.44	5.22	_____
Germany	Mark	1.58	1.69	_____
India	Rupee	31.39	34.55	_____
Japan	Yen	100.15	110.23	_____
Mexico	Peso	4.65	5.09	_____
Norway	Krone	6.88	6.49	_____
Thailand	Bhat	25.12	23.22	_____

a. In the far right column of the table, indicate whether the U.S. dollar has appreciated (**A**) or depreciated (**D**) from year 1 to year 2.

b. In year 1, a U.S. dollar would purchase _____ French francs, but in year 2, it would purchase _____ French francs. The U.S. dollar has (appreciated, depreciated) _____ against the French franc from year 1 to year 2.

c. In year 1, a U.S. dollar would purchase _____ Japanese yen, but in year 2, it would purchase _____ Japanese yen. The U.S. dollar has (appreciated, depreciated) _____ against the Japanese yen from year 1 to year 2.

4. This problem asks you to calculate prices based on exchange rates. Use the data in the table for Problem 3 to answer the following items.

a. Using the exchange rates shown for year 1, what would be the U.S. dollar cost for the following products?

(1) Japanese television costing 30,000 yen.

$_____

(2) French scarf costing 600 francs. $_____

(3) Thai artwork costing 3,768 bhats. $_____

(4) German auto costing 79,000 marks. $_____

(5) Mexican silver bracelet costing 1,376 pesos.

$_____

b. Using the exchange rates shown for year 2, what would be the U.S. dollar cost of the following products?

(1) Japanese television costing 30,000 yen.

$_____

(2) French scarf costing 600 francs. $_____

(3) Thai artwork costing 3,768 bhats. $_____

(4) German auto costing 79,000 marks. $_____

(5) Mexican silver bracelet costing 1,376 pesos.

$_____

c. Indicate whether the U.S. dollar cost of each product in 4b has increased (+) or decreased (−) from year 1 to year 2. _____ _____ _____ _____ _____

d. What is the relationship between your answers in 4c to the ones you gave for the corresponding nations in 3a?

(1) When the U.S. dollar *appreciates* in value against a foreign currency, the U.S. dollar cost of a product from that nation will (increase, decrease) _____.

(2) When the U.S. dollar *depreciates* in value against a foreign currency, the U.S. dollar cost of a product from that nation will (increase, decrease) _____.