

Economics 101
Spring 2000
Section 4 - Hallam
Exam 2C

For questions 1-4, use the diagrams on the next page. In all cases the initial situation is at S_0 and D_0 in the market for the good in question.

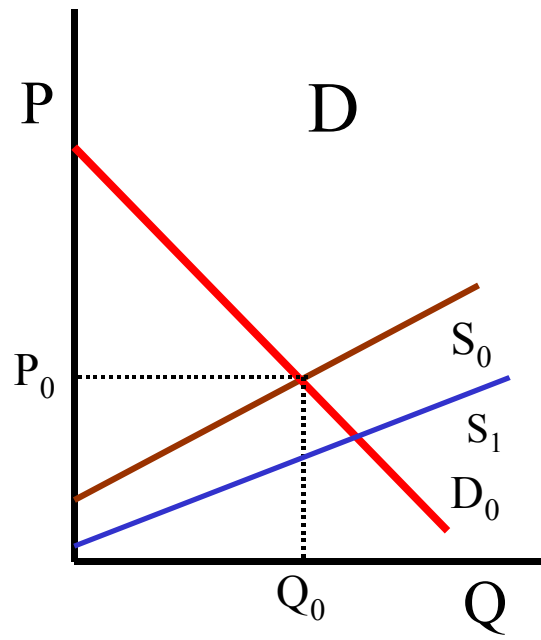
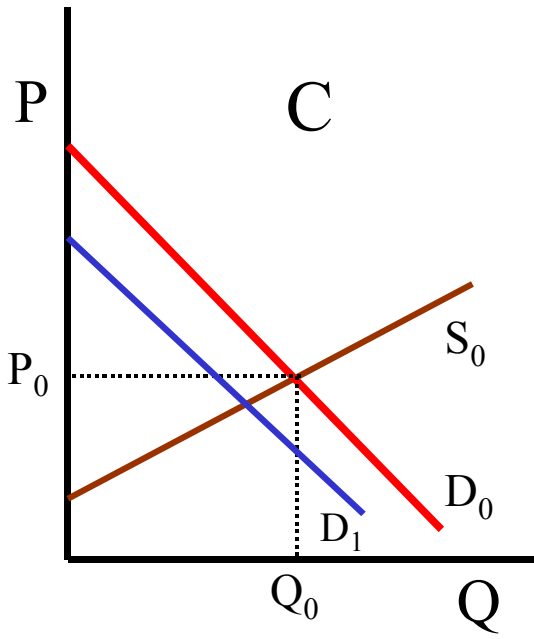
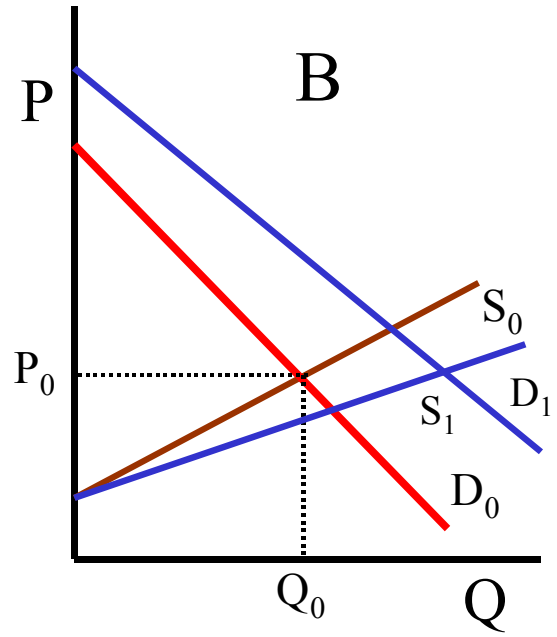
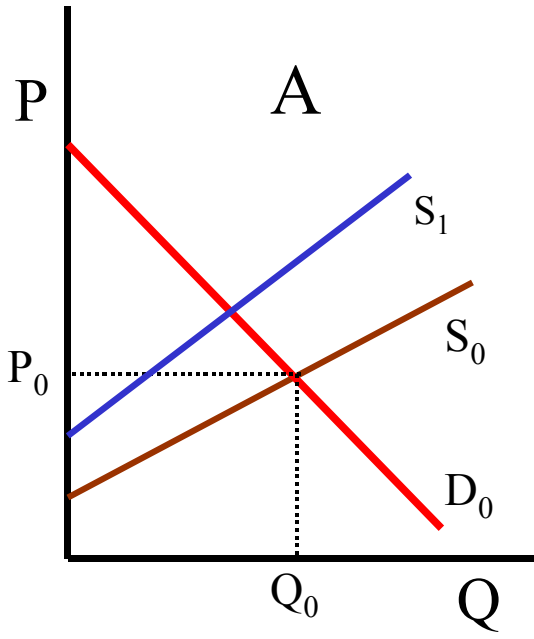
1. Which panel best represents the effect of an increase in the price of an alternative product the firm could produce?
 - a. A
 - b. B
 - c. C
 - d. D

2. Consider panel B. This represents
 - a. An increase in the quantity demanded and a decrease in supply.
 - b. A decrease in the quantity supplied and an increase in price.
 - c. An increase in demand and an increase in supply.
 - d. An increase in demand and an increase in price.
 - e. An increase in supply and a decrease in the quantity supplied.

3. Which panel best represents the effect of a decrease in the price of an input and an increase in consumer income?
 - a. A
 - b. B
 - c. C
 - d. D

4. Which panel represents a decrease in the price of a substitute good for the consumer?
 - a. A
 - b. B
 - c. C
 - d. D

5. If the demand for pork chops is price elastic, what will happen to revenue of the local butcher if she lowers the price of pork chops?
 - a. Revenue will fall
 - b. Revenue will rise
 - c. Revenue will remain the same
 - d. One cannot tell



6. Consider the following demand and supply curves $Q^D = 40 - P$ $Q^S = 3P - 8$. The equilibrium price and quantity are given by
- $P = 10, Q = 30$
 - $P = 12, Q = 30$
 - $P = 15, Q = 25$
 - $P = 12, Q = 28$
 - $P = 11, Q = 25$
7. Consider the following supply curve $Q^S = 2P - 6$, and inverse demand curve $P = 19 - \frac{1}{2}Q^D$. The equilibrium price and quantity are given by
- $P = 10, Q = 14$
 - $P = 11, Q = 14$
 - $P = 12, Q = 13$
 - $P = 12, Q = 18$
 - $P = 11, Q = 16$
8. Consider a demand curve written as $Q = 1200 - 3P$. What is the slope of this demand curve where $slope = \frac{\Delta Q}{\Delta P}$.
- 4
 - $-0.3\bar{3}$
 - 0.25
 - 3
 - 3
9. What is the elasticity of demand (mid-point formula) for the demand curve in the previous problem as price goes from \$100 to \$200?
- 5/3
 - 4/3
 - 0.75
 - 3/5
 - 2/3
10. The government has determined the cost of the average consumption bundle in a number of different price situations. This represents the price level in the economy. In which of the following situations would a consumer be most satisfied.
- an annual income of \$22,000 when the standard bundle costs \$2,000.
 - an annual income of \$40,000 when the standard bundle costs \$4,000.
 - an annual income of \$90,000 when the standard bundle costs \$10,000.
 - an annual income of \$72,000 when the standard bundle costs \$6,000.
 - an annual income of \$88,000 when the standard bundle costs \$11,000.

Use the following table to answer questions 11 and 12 where the data in the table gives the **cost per unit** for each item.

	Per box lettuce	Per watch
Israel	60 shekels	240 shekels
Germany	30 marks	90 marks

11. What is the opportunity cost of producing one more box of lettuce in Israel?
- 60 shekels
 - 2 watches
 - 1/3 watch
 - 1/4 watch
 - 4 watches
12. Which of the following is true?
- Israel has a comparative advantage in producing watches.
 - Germany has a comparative advantage in producing watches.
 - Neither country has a comparative advantage in either good.
 - Germany has a comparative advantage in both goods.
 - Israel has an absolute advantage in producing both goods.

Consider the following data on shoe and firecracker production in Taiwan and Hong Kong where the data is **production per day**. Assume that the production possibility frontier is linear. With no shoe production, Taiwan can produce 300,000 firecrackers. With 15,000 shoes, Taiwan has no firecracker production, etc.

	Shoes	Firecrackers
Taiwan	0	300,000
Taiwan	15,000	0
Hong Kong	0	200,000
Hong Kong	8,000	0

13. Which of the following statements is true?
- Hong Kong has an absolute advantage in shoe production
 - Taiwan has an absolute advantage in both products and a comparative advantage in shoes
 - Hong Kong has to give up 25 firecrackers to get a pair of shoes
 - Both b and c are correct
 - Taiwan has an absolute advantage in both products and a comparative advantage in firecrackers
14. If Taiwan produced 5,000 shoes and Hong Kong produced 3,000 shoes and each used their remaining resources for firecracker production, what would total firecracker production be?
- 175,000
 - 325,000
 - 200,000
 - 440,000
 - 225,000

For questions 15-18, use the table below. The table contains data on demand for 2 goods, sheep (S) and cows (C). The notation is as follows: PS = price of sheep, PC = price of cows, I = income, DS = demand for sheep, DC = demand for cows. There are four situations shown.

			DS, I = 500		DC, I=500					DS, I = 1000		DC, I=1000		
PS	PC	I	DS, PC = 5	DC, PC = 5	PS	PC	I	DS, PC = 5	DC, PC = 5	PS	PC	I	DS, PC = 5	DC, PC = 5
10.00	5.00	500.00	41.20	17.60	10.00	5.00	1000.00	81.20	37.60	10.00	5.00	1000.00	81.20	37.60
15.00	5.00	500.00	27.20	18.40	15.00	5.00	1000.00	53.87	38.40	15.00	5.00	1000.00	53.87	38.40
20.00	5.00	500.00	20.20	19.20	20.00	5.00	1000.00	40.20	39.20	20.00	5.00	1000.00	40.20	39.20
25.00	5.00	500.00	16.00	20.00	25.00	5.00	1000.00	32.00	40.00	25.00	5.00	1000.00	32.00	40.00
30.00	5.00	500.00	13.20	20.80	30.00	5.00	1000.00	26.54	40.80	30.00	5.00	1000.00	26.54	40.80
35.00	5.00	500.00	11.20	21.60	35.00	5.00	1000.00	22.63	41.60	35.00	5.00	1000.00	22.63	41.60
40.00	5.00	500.00	9.70	22.40	40.00	5.00	1000.00	19.70	42.40	40.00	5.00	1000.00	19.70	42.40
45.00	5.00	500.00	8.54	23.20	45.00	5.00	1000.00	17.43	43.20	45.00	5.00	1000.00	17.43	43.20

			DS, I = 500		DC, I=500					DS, I = 1000		DC, I=1000		
PS	PC	I	DS, PC = 20	DC, PC = 20	PS	PC	I	DS, PC = 20	DC, PC = 20	PS	PC	I	DS, PC = 20	DC, PC = 20
20.00	20.00	500.00	23.20	1.80	20.00	20.00	1000.00	43.20	6.80	20.00	20.00	1000.00	43.20	6.80
25.00	20.00	500.00	18.40	2.00	25.00	20.00	1000.00	34.40	7.00	25.00	20.00	1000.00	34.40	7.00
30.00	20.00	500.00	15.20	2.20	30.00	20.00	1000.00	28.54	7.20	30.00	20.00	1000.00	28.54	7.20
35.00	20.00	500.00	12.92	2.40	35.00	20.00	1000.00	24.35	7.40	35.00	20.00	1000.00	24.35	7.40

15. What is the price elasticity of demand for sheep with an income of \$500 when the price of cows is \$5.00 as the price of sheep goes from \$20 to \$25?
 - a. -1.034
 - b. 0.306
 - c. -1.022
 - d. 1.000
 - e. -1.044

16. What is the income elasticity of demand for sheep when the price of cows is \$20.00, the price of sheep is \$25.00, and income goes from \$500 to \$1,000?
 - a. 1.000
 - b. 0.909
 - c. 0.915
 - d. 1.007
 - e. 1.020

17. Now consider the demand for sheep in the \$35 price category when the price of cows is \$5.00 and income goes from \$500 to \$1,000. In this range are sheep
 - a. a luxury
 - b. a necessity
 - c. an inferior good
 - d. Cannot tell from the data

18. Now consider the demand for cows when the price of cows is \$20.00 and income is \$1,000. Consider a change in the price of sheep from \$25 to \$30. For this price change are sheep and cows
 - a. substitutes
 - b. complements
 - c. Cannot tell from the data

19. Gilligan and the Skipper live on an island. The following table represents their **output in a day** of work.

	Turtles	Coconuts
Gilligan	30	6
Skipper	54	9

Which of the following statements is true?

- Gilligan has an absolute advantage in both products and a comparative advantage in coconuts.
 - Gilligan has an absolute advantage in neither product and a comparative advantage in coconuts.
 - The Skipper has an absolute advantage both products and a comparative advantage in coconuts.
 - The Skipper has a comparative advantage in coconuts.
 - Gilligan has an absolute advantage in coconuts and a comparative advantage in coconuts.
20. Consider the following hypothetical data on pencil and pen production in Bolivia and Ecuador. Assume that capital is freely mobile so only labor costs matter. Also assume that real wages will tend to equalize so that only labor quantities matter. The data below gives the number of **minutes required per unit of output**.

	Pens	Pencils
Bolivia	2 minutes	1 minute
Ecuador	3 minutes	2 minutes

Which of the following statements is true?

- Bolivia can produce both products in less time per unit.
 - Ecuador has a comparative advantage in pens.
 - Bolivia had a comparative advantage in pens.
 - Neither country has a comparative advantage in either product.
 - Both a and b are correct.
21. Using the data from the previous question, how many pens can Bolivia make per minute?
- 1/3 pen
 - 2 pens
 - 1 pen
 - 2/3 pens
 - 1/2 pen

Use the following table to answer question 22 where the data in the table gives the **cost per unit** for each item.

	Per dozen roses	Per watch
Israel	80 shekels	240 shekels
Germany	30 marks	90 marks

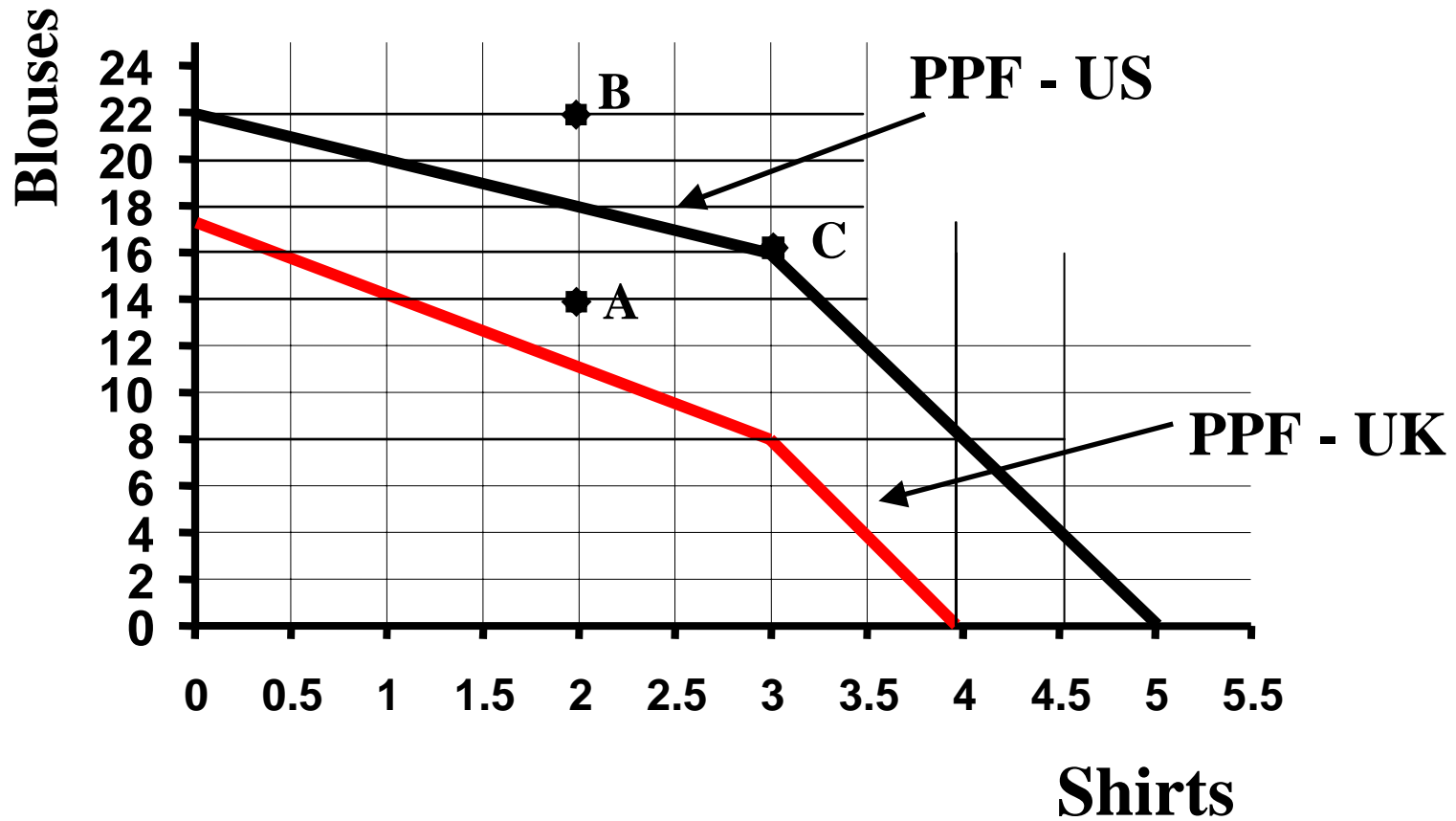
22. Which of the following is true?

- Israel has a comparative advantage in producing roses.
- Neither country has a comparative advantage in either product.
- Germany has a comparative advantage in producing roses.
- Israel has an absolute advantage in producing both products.
- The opportunity cost of a watch in Israel is 4 dozen roses.

The diagram on the next page is for use with questions 23-26. The two countries are the United States (US) and the United Kingdom (UK). The data is output per day in each country.

23. Which of the following statements is true?
- The United States has an absolute advantage in shirt production and blouse production.
 - The United Kingdom has an absolute advantage in blouse production.
 - Point A is not feasible for either country.
 - The United States has an absolute advantage in shirt production only.
 - When the UK produces 3 shirts, it can produce 12 blouses.
24. When each country is producing more than 3 shirts, which of the following is true?
- The opportunity cost of a shirt within the US is 8 blouses.
 - The opportunity cost of a shirt within the US is 4 blouses.
 - Both a and d are true.
 - Neither country has a comparative advantage in either product.
 - The UK has a comparative advantage in blouse production.
25. When each country is producing 1 shirt, which of the following statements is true?
- The opportunity cost of a shirt in the US is 1 blouse.
 - The opportunity cost of a shirt in the UK is 2 blouses.
 - The opportunity cost of a shirt in the US is 3 blouses.
 - The US has a comparative advantage in shirts.
 - The UK has a comparative advantage in shirts.
26. When each country is producing 2 shirts, which of the following statements is true?
- The opportunity cost of a shirt in the US is 3 blouses.
 - If the US increased shirt production by 1 unit and the UK decreased shirt production by 1 unit, world blouse production would increase by 1 unit.
 - If the UK increased shirt production by 1 unit and the US decreased shirt production by 1 unit, world blouse production would increase by 1 unit.
 - The UK has a comparative advantage in shirts.
 - If the US increased blouse production by 2 units and the UK decreased blouse production by 2 units, world shirt production would increase by $\frac{2}{3}$ units.

Production Possibility Set Shirts and Blouses



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Question	Correct Answer	Question	Correct Answer
1	a	14	b
2	c	15	e
3	b	16	b
4	c	17	a
5	b	18	a
6	d	19	b
7	e	20	e
8	d	21	e
9	d	22	b
10	d	23	a
11	d	24	c
12	b	25	d
13	d	26	b