



IB Economics: [www.IBDeconomics.com](http://www.IBDeconomics.com)

### 1.6 CROSS-PRICE ELASTICITY OF DEMAND: EXAM PRACTICE QUESTIONS

Answer the questions that follow.

#### 1. IB ECONOMICS PAPER 1 EXAMINATION QUESTIONS

- Examine the importance of cross-price elasticity of demand to firms facing changing prices of substitute or complementary goods. **[15 marks]**
- Referring to the concept of cross-price elasticity of demand (XED) and using examples, explain the factors that cause XED to have a positive, negative or zero value. **[10 marks]**
- Explain that the (absolute) value of XED depends on the closeness of the relationship between two goods. **[10 marks]**

2. IB ECONOMICS HL PAPER 3 EXAMINATION QUESTIONS

**Question One**

**[25 marks]**

Use the following information to answer questions (a.) and (b.). The price of apples increases by 10%, the quantity demanded of apples decreases by 12% and the quantity of oranges purchased increases by 9%.

- a. Calculate the price elasticity of demand for apples, and state if the demand for apples is price elastic or inelastic. **[2 marks]**
- b. Calculate the cross-price elasticity of demand between apples and oranges, and outline the relationship between apples and oranges. **[2 marks]**

Use the following information to answer questions (c.) and (d.). At a burger joint, the price of burgers decreases from \$6.00 to \$5.00, and the quantity of burgers demanded increases from 1 100 a week to 1600 and the quantity of chips sold increases from 1550 a week to 1900.

- c. Calculate the price elasticity of demand for burgers, and state if the demand for burgers is price elastic or inelastic. **[3 marks]**
- d. Calculate the cross-price elasticity of demand for burgers and chips, and outline the relationship between burgers and chips. **[3 marks]**

Use the following information to answer questions (e.) and (f.). When the price of good X increases from \$120 to \$150, the quantity of good Y demanded falls from 100 units to 88 units.

- e. Calculate the cross-price elasticity of demand for X and Y. **[2 mark]**
- f. State the relationship between X and Y. **[1 mark]**

Pair	A and B	C and D	E and F	G and H	I and J
XED	+0.2	+0.8	-0.4	-0.7	0.0

The table above provides cross-price elasticity (XED) values for different pairs of goods. Use this information to answer questions (g.), (h.) and (i.).

- g. Explain the relationship between the goods in each pair. **[3 marks]**
- h. Explain how this relationship compares for: (i) pairs A and B, **and** C and D; and (ii) pairs E and F, **and** G and H. **[4 marks]**

**Exam Practice Questions: 1.6: Cross-Price Elasticity of Demand**

- i. Outline the relationship between goods I and J. **[1 marks]**
- j. Tesla produces two cars – the model S and the model X. The model X is its premium brand and has a higher profit margin than the model S. It estimates the cross-price elasticity of demand for the two types of cars is +1.3. Tesla plans to lower the price of its model S by 10% to increase sales. Explain the likely effects of this pricing decision on its sales of the model X and the firm's overall profitability. **[4 marks]**

Source: [www.IBDeconomics.com](http://www.IBDeconomics.com)