A quick recap: Cross price elasticity of demand refers to the percentage change in the quantity demanded of a given product due to the percentage change in the price of another "related" product.

1. If $CPE_D > 0$ then the two goods are [A]__________
2. If $CPE_D =0$ then the two goods are [A]__________ (i.e. no relationship between the two goods)
3. If $CPE_D < 0$ then the two goods are [A]__________
4. An increase in the price of hot dogs from £1.50 to £2.10 per pound increased the average number of beef burgers demanded per week from 300 to 360 Assuming that all other economic variables were held constant, the cross-price elasticity of demand between hot dogs and beef burgers is [A]__________ which indicates that the two goods are [B]__________

5. A café observed an increase in the demand for its coffee following a rise in the price of a cup of tea from £1.20 to £1.50. Assuming the cross price elasticity of demand for coffee with respect to a change in the price of tea is +0.8, by how much (in per cent) will the demand for coffee have increased?

6. The price of good X falls by 15%. As a result, the demand for a substitute good Y rises by 30%. What is the cross-elasticity of demand for good Y with respect to good X?

7. If the cross-price elasticity of demand for Coke and Pepsi is 0.6 and presently 1000 units of Coke are consumed, how many units of Coke will be consumed if the price of Pepsi increases by 10%?

8. Good Y has a cross price elasticity of demand with respect to Good X of 0.5 and 100 units of Good Y are demanded when Good X costs 50 pence.

A rise in the price of Good X to 75 pence will lead to a change in the demand for Good Y to

- A. 25 units
- B. 125 units
- C. 150 units
- D. 75 units

9. Which of the following pairs of goods is likely to have a positive cross price elasticity of demand?

- A. A Sony Playstation and the games that are played on it
- B. A Sony Playstation and Microsoft X Box
- C. Airline travel and airline fuel
- D. Washing powder and shampoo
10. The table gives information about the market for two models of car.

<table>
<thead>
<tr>
<th>model</th>
<th>number of cars sold per week</th>
<th>cross elasticity of demand with respect to the price of petrol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200 cc</td>
<td>10,000</td>
<td>-0.25</td>
</tr>
<tr>
<td>2000 cc</td>
<td>5,000</td>
<td>-0.50</td>
</tr>
</tbody>
</table>

If the prices of the cars remain unchanged, but the price of petrol increases by 100%, what will be the effect on the number of cars sold per week?

○ A. decrease by 15,000
○ B. decrease by 5,000
○ C. increase by 5,000
○ D. no change in total sales

11. As Oil and Gas Prices Rise, Wood Stoves Gain Converts

"After a summer of high oil and gas prices, suburb dwellers around New York, and across the country, are going low-tech in hopes of reducing their energy bills this winter."

In Canada in 2008, data showed that the price of heating oil rose by 25% and the price of natural gas increased by 17% and the demand for wood stoves increased by 54%.

(1) Comment on the cross price elasticity of demand for wood stoves with respect to natural gas burning heaters

(2) Is the cross-price elasticity of demand elastic or inelastic for wood stoves in respect of changes in the price of heating oil? Briefly explain your answer

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