Price Elasticity of Demand

Elasticity provides a way of measuring how sensitive demand or supply is to factors such as a change in price. Take the relationship between price and quantity demanded. We know that if price rises then people will buy less but we do not know how much less. Price elasticity of demand allows us to calculate this

1. Price elasticity of demand measures the percentage change in [A]quantity demanded caused by a percent change in [B]price

2. If the demand for a product is said to be elastic, this is demand for which price elasticity is [A]greater than 1

3. If the total revenue from the sales of a good rises by 10% when its price is increased by 10%, then the demand for the good must perfectly [A]inelastic

4. There is a difference between brand-level and industry-level price elasticity. Due to a range of substitutes, brand-level elasticity tends to be [A]higher than industry-level elasticity

5. For alcohol, the short run price elasticity of demand is estimated to be 0.2 in Europe. This means that the demand for alcohol is relatively price [A]inelastic and that prices need to increase by [B]75% to reduce alcohol consumption per head by 15%

6. A manufacturer reduces the price of its digital cameras by 20% and, as a result, the volume of sales rises by 30%. Therefore, the value of price elasticity of demand for the good is -1.5 (i.e. demand is price elastic)

7. A supermarket reduces the price of oranges from 50 pence each to 30 pence each. The weekly sales increase from 8,000 to 10,000. The value of price elasticity of demand is 0.625 - i.e. demand is price inelastic (40% fall in price leads to a 25% expansion of demand)

8. Suppose that a pizza vendor at a basketball game can sell 3,000 slices of pizza per night at a price of $3 per slice. If the vendor raises the price to $4 per slice, the number of slices sold falls to 2,000. Based on this information, the price elasticity of demand using the is?

One (i.e. unitary demand) - both price and demand have changed by 33 per cent

9. An high-definition flat screen TV sold 500,000 units at £1000 each last year. It is known that its price elasticity of demand is -2.0 (calculated at the current price and quantity). What would sales be this year if there are no other changes affecting demand and the price per unit is lowered to £950?

550,000 units. The price has fallen by 5% and price elasticity of demand = -2.0. Thus we expect demand to increase by 2 x 5% = 10%. i.e. a 50,000 increase in units sold.
10. Product X has a price elasticity of demand of 0.25 while Product Y has a price elasticity of demand of 1.5. A likely explanation of these values is that compared to product Y, product X
   ○ A. is considered more of a luxury
   ○ B. takes up a larger proportion of consumers’ income
   ○ C. has more substitutes
   ○ D. is purchased more out of habit

11. The price elasticity of demand for iPhone smart-phones is likely to increase when
   ○ A. the government grants all workers a generous income tax cut
   ○ B. more applications are made available to consumers of mobile phone technology
   ○ C. a new competitor enters the mobile phone market
   ○ D. production is shifted to a country where average wages are lower

12. A recent analysis of the market for broadband deals found that the demand was more price elastic in the long run rather than the short run. The price elasticity of demand will tend to increase the longer the time period after a price change because:
   ○ A. consumers’ incomes will increase
   ○ B. the demand curve will shift outward
   ○ C. all prices will increase over time
   ○ D. consumers are better able to find substitutes

13. The demand for Honey Nut Loops cereal is more price-elastic than the demand for cereals as a whole. This is best explained by the fact that:
   ○ A. Honey Nut Loops are regarded as a luxury product
   ○ B. there are more substitutes for Honey Nut Loops than for cereals as a whole
   ○ C. spending on cereals as a whole is greater than consumption of Honey Nut Loops
   ○ D. Honey Nut Loops are seen by consumers as a necessity

14. When the price of a product is increased 10 percent, the quantity demanded decreases 15 percent. In this range of prices, demand for this product is:
   ○ A. inelastic
   ○ B. elastic
   ○ C. unit elastic
   ○ D. perfectly elastic
   ○ E. perfectly inelastic

15. In 2009, some tobacco companies in the US wanted to raise prices but a spokesman said the tobacco industry was no longer in a position where it could increase producer revenues by raising prices. What might be concluded from this statement?
   ○ A. The profit of tobacco growers does not depend on the price system
   ○ B. The price elasticity of demand for tobacco is likely to be greater than unity (1)
   ○ C. The price elasticity of demand for tobacco is lower than it used to be
   ○ D. Demand for tobacco is price inelastic