Extension 1 Answers

The formula for calculating a coefficient of price elasticity of demand is:

$$\frac{\% \triangle \ Q_D}{\% \triangle \ P}$$

In order to determine % change in quantity demanded, take the new Q_D – the initial Q_D and divide by the initial Q_D.

Similarly, in order to determine % change in price, take the new P – the initial P and divided by the initial P.

For example, we can calculate the price elasticity of demand for paper towels given this information:

Price	Quantity Demanded
$1	10
$1.50	3

% change in Q_D = (3-10)/10 = 0.70 (*We drop the negative sign because we are concerned about the magnitude of the change, not the direction)

% change in P = ($1.50-1)/1 = -.50

Therefore, price elasticity of demand for paper towels = 0.70/0.50 = 1.4

Directions: Calculate price elasticity of demand for each of the following.

1. Pokémon Cards   *0.8*

Price	Quantity Demanded
$2	25
$3	15

2. Starbucks Lattes   *1*

Price	Quantity Demanded
$4	100
$5	75

3. Plane Tickets to London   *1.11*

Price	Quantity Demanded
$500	600
$800	200

4. State Fair Corndogs   *0.05*

Price	Quantity Demanded
$1	5000
$3	4500