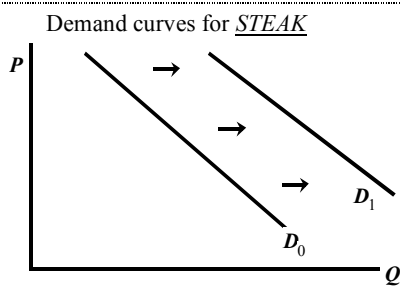


INCOME EFFECTS

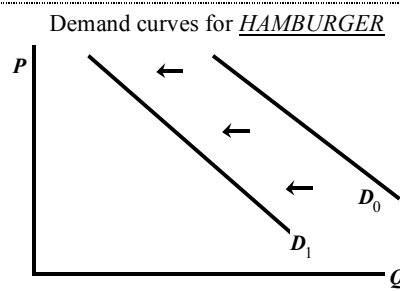
As income increases:



A NORMAL GOOD

Income increases, buy more (demand increases)
Income decreases, buy less (demand decreases)

As income increases:

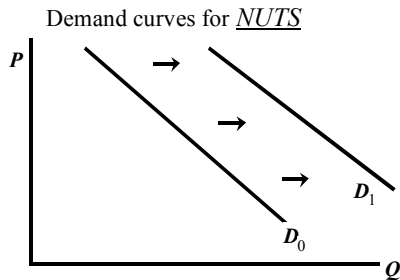
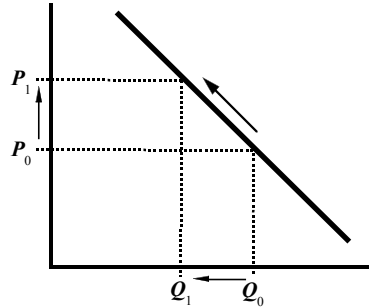


AN INFERIOR GOOD

Income increases, buy less (demand decreases)
Income decreases, buy more (demand increases)

CROSS EFFECTS

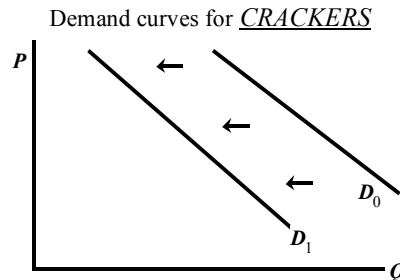
Demand curve for CHEESE →→



Cheese and nuts are **SUBSTITUTES**:

$P_{CH} \uparrow \rightarrow Q_{CH} \downarrow$
 \searrow
 $Q_N \uparrow$

POSITIVE CROSS EFFECT: $(P_{CH} \uparrow \rightarrow Q_N \uparrow)$

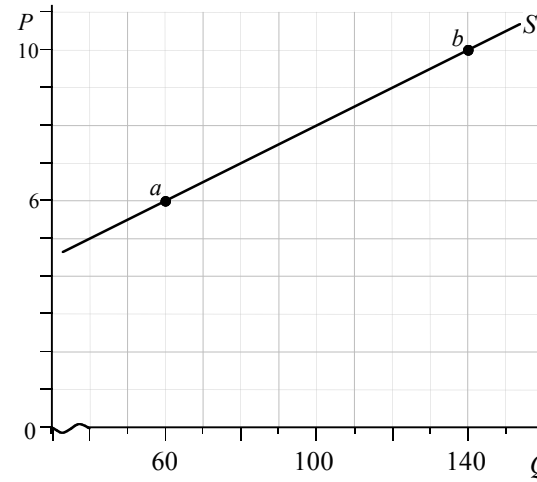


Cheese and crackers are **COMPLEMENTS**:

$P_{CH} \uparrow \rightarrow Q_{CH} \downarrow$
 \searrow
 $Q_{CR} \downarrow$

NEGATIVE CROSS EFFECT: $(P_{CH} \uparrow \rightarrow Q_{CR} \downarrow)$

Elasticity of Supply



$$\eta_s = \left[\frac{\% \Delta Q}{\% \Delta P} \right] \text{ along supply}$$

To find elasticity of supply between a and b:

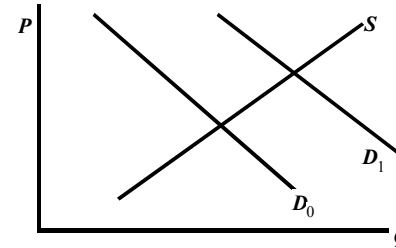
$$\% \Delta Q = \left[\frac{140 - 60}{100} \right] \times 100 = 80\%$$

$$\% \Delta P = \left[\frac{10 - 6}{8} \right] \times 100 = 50\%$$

$$\eta_s = \left[\frac{80}{50} \right] = 1.6 \quad \text{For a 1\% rise in } P \text{ expect a 1.6\% rise in } Q_s$$

How might we gather the information needed to compute elasticities?

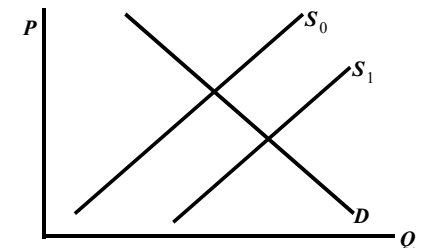
To compute elasticity of SUPPLY



We would need numbers from two points on a supply curve to compute the elasticity of supply. One way to get them: a shift in demand moves the market from one equilibrium to another. Therefore:

A CHANGE IN DEMAND GIVES THE INFORMATION TO FIND THE ELASTICITY OF SUPPLY.

To compute elasticity of DEMAND



We would need numbers from two points on a demand curve to compute the elasticity of demand. One way to get them: a shift in supply moves the market from one equilibrium to another. Therefore:

A CHANGE IN SUPPLY GIVES THE INFORMATION TO FIND THE ELASTICITY OF DEMAND.

Typical multiple choice question:

There is a change in demand. Price changes by 10%, quantity changes by 40%. Then the elasticity of:

- a) demand is .25
- b) demand is 4

c) supply is .25

d) supply is 4

e) either b) or d), we just don't know which