I. Demand curves show how sensitive consumers are to price changes

A. 

1. Relatively inelastic 

B. 

1. Relatively elastic
II. BUT Ol' Herm is gonna throw you a curve here (leave room for two graphs)

A.

Here the slope relates that the quantity demanded is very sensitive to price changes. --- BUT --- A change in the scale of measure changes the graph so as to make it look as though the quantity demanded is NOT very sensitive to changes in price!

Due to the problems with scaling depicted here, we rely on a mathematical determination of elasticity.

B. PRICE ELASTICITY OF DEMAND (Ed)

\[
\text{Ed} = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}}
\]

1. If the Ed = -.75, what does this mean?
   a. means "For each one percent change in price, the quantity demanded will change .75% in the opposite direction"
2. How do we calculate the elasticity of demand mathematically?

3. Example: \( P_0 = 8 \quad P_1 = 7 \)
   \( Q_0 = 40 \quad Q_1 = 48 \)

Step 1:

Step 2:

Step 3:

Step 4:
4. Since we know that an Ed = ______ means that a ______ change in price results in a ______ change in quantity demanded in the opposite direction,

What would a 20% change in price result in?

Step 1:

Step 2:

Step 3:

5. What would a 20% change in the quantity demanded result in?

a. ANSWER:

If you have trouble with the algebraic derivations of an equation then,

REMEMBER: (%_____P X Ed) = %_____Q

(%_____Qd / Ed) = %_____P
C. We now know how to mathmatically determine Ed, what does it tell us about elasticity?

1.

2.

3.

D. 1971 Estimates of Price Elasticity of Demand at Retail in the U.S.

<table>
<thead>
<tr>
<th>Ed</th>
<th></th>
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<tbody>
<tr>
<td>beef</td>
<td>-.6438</td>
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<td>chicken</td>
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<tr>
<td>sugar</td>
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<td>-.1500</td>
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<tr>
<td>non-foods</td>
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