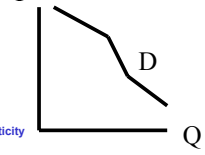
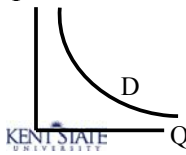
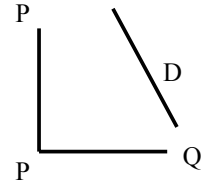
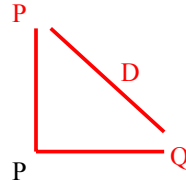


Elasticity

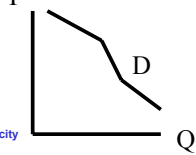
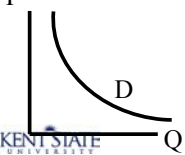
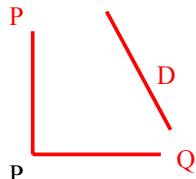
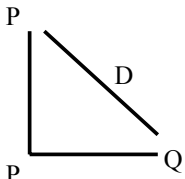
η

"eta"

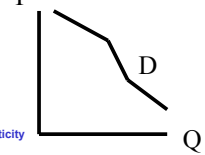
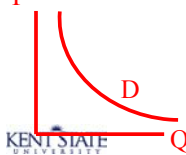
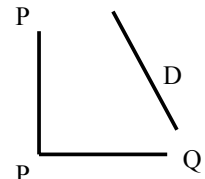
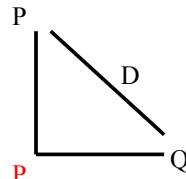
Four demand functions



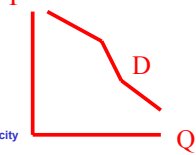
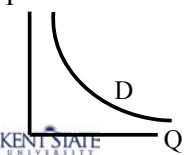
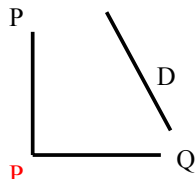
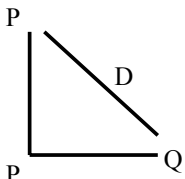
Four demand functions



Four demand functions



Four demand functions



The notion of elasticity

- The critical question: how responsive is the quantity demanded to changes in price?

The notion of elasticity

- The critical question: how responsive is the quantity demanded to changes in price?
- And how do we measure that?

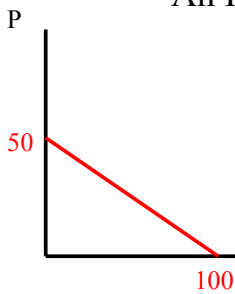
A Definition, Sort of

- We represent that by the price elasticity of demand

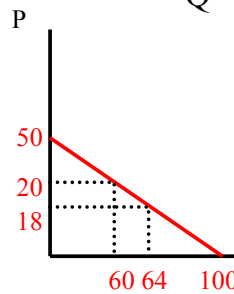
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the ratio of the percentage change in quantity demanded to the percent change in price

An Illustration



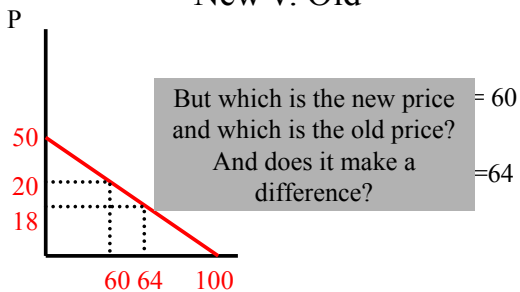
$$Q = 100 - 2P$$



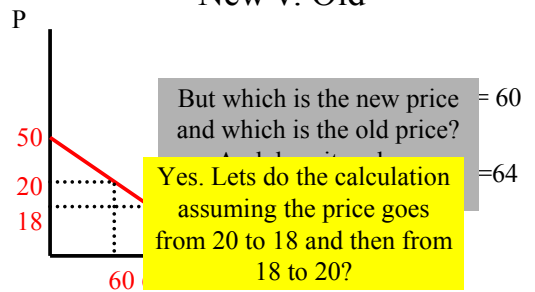
$$Q = 100 - 2(20) = 60$$

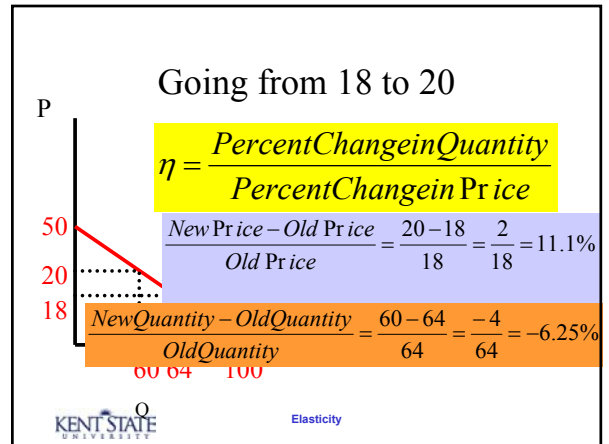
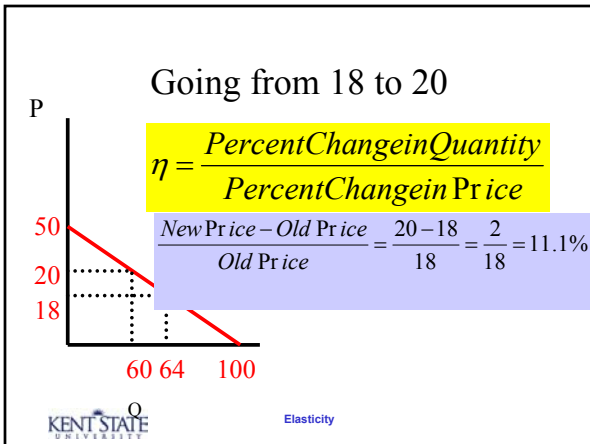
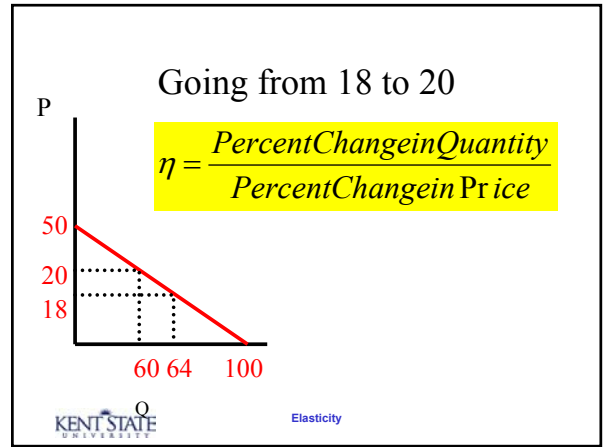
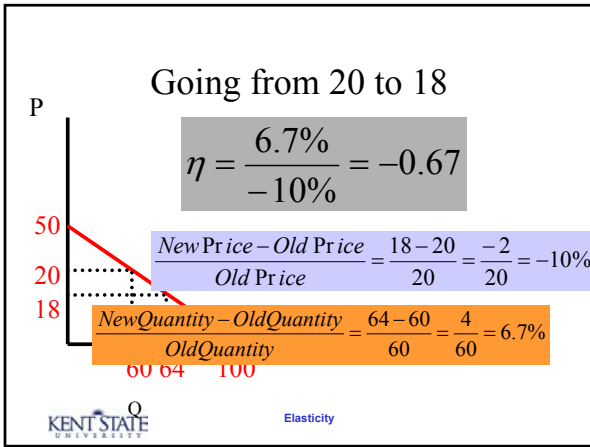
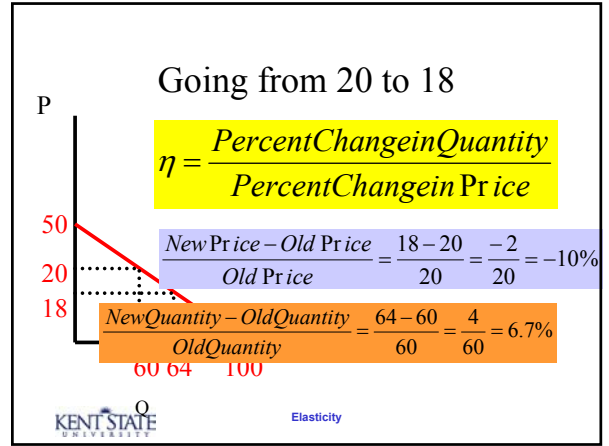
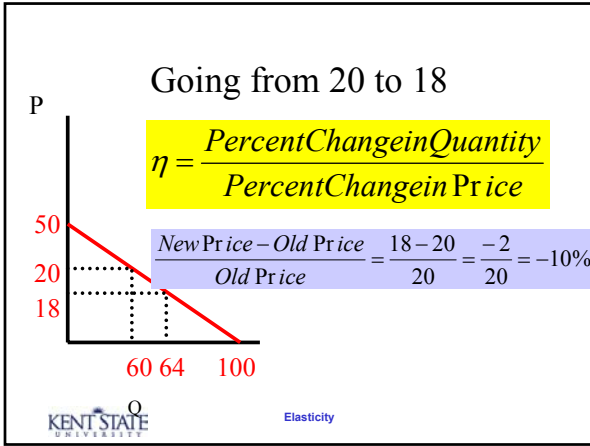
$$Q = 100 - 2(18) = 64$$

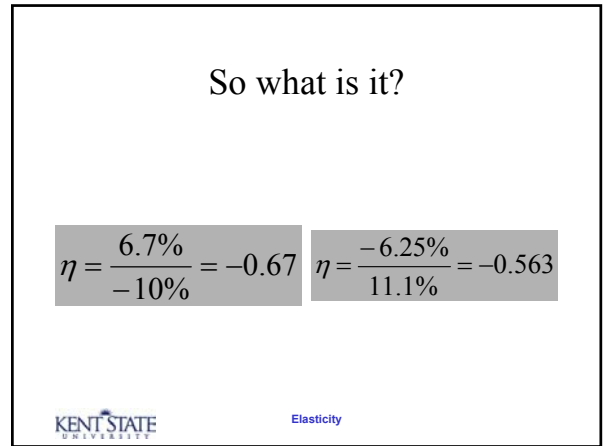
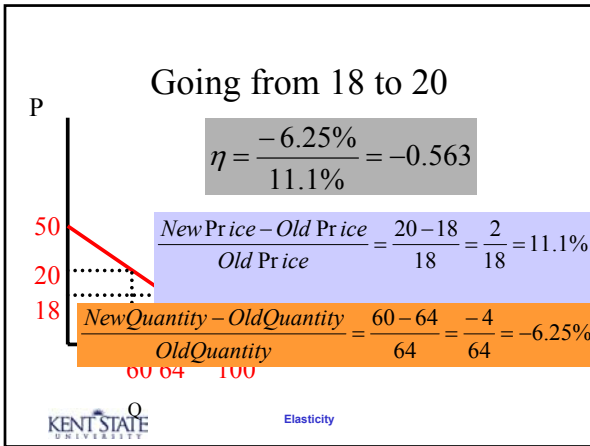
New v. Old



New v. Old







- ### Two computational methods
- Point Elasticity of Demand
 - Arc Elasticity of Demand
- KENT STATE UNIVERSITY Elasticity

Point Elasticity of Demand

- Defined by

$$\eta = \text{Slope} \frac{\text{Price}}{\text{Quantity}}$$

where Slope is the slope of the demand function

KENT STATE UNIVERSITY Elasticity

Point Elasticity of Demand

- Defined by

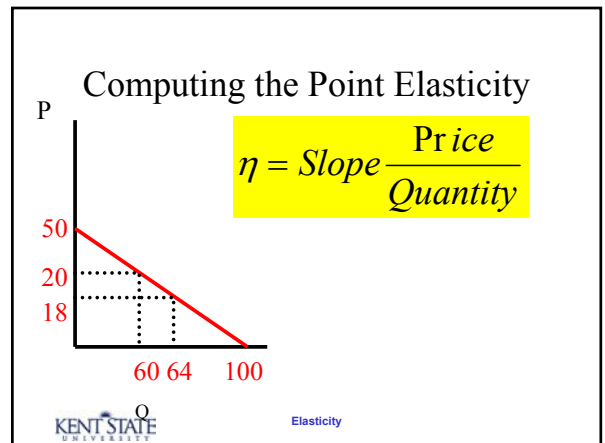
In the case of a linear demand function

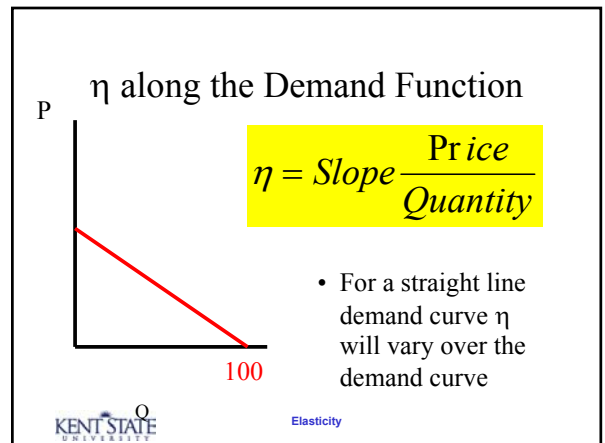
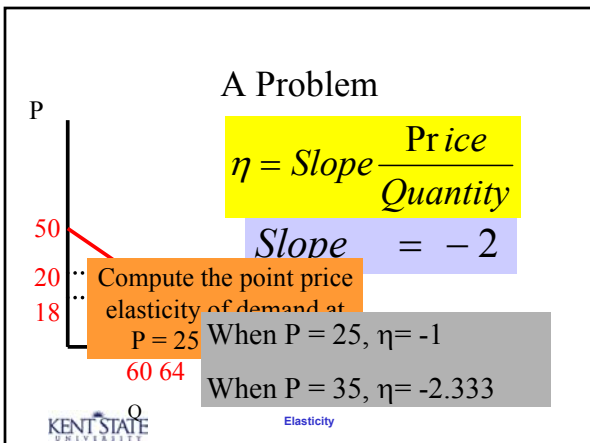
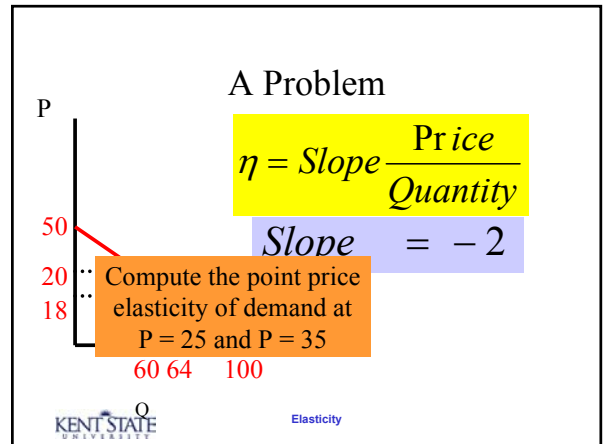
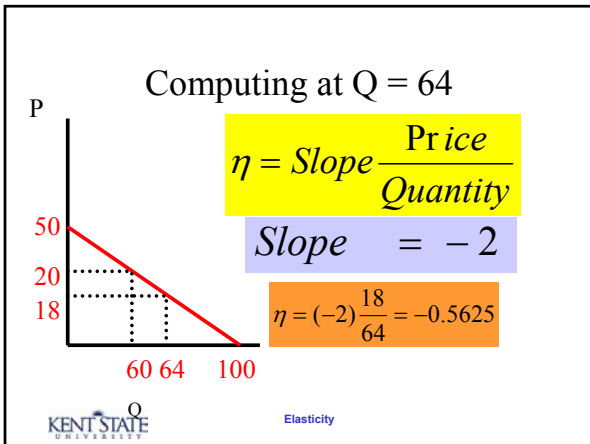
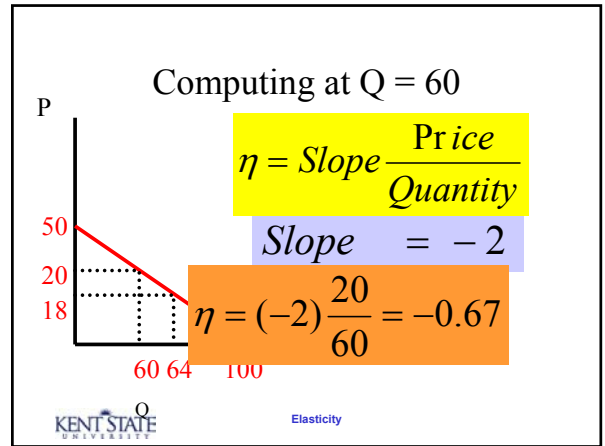
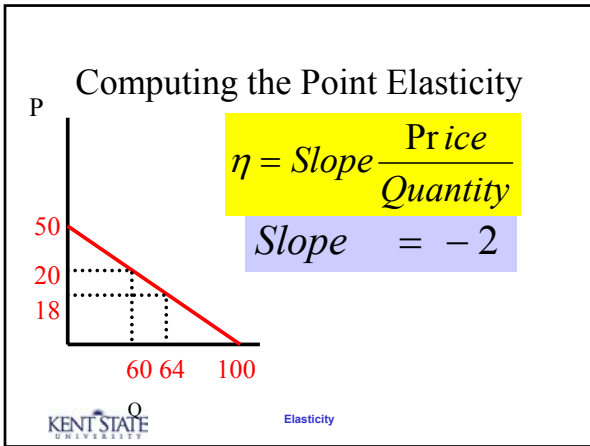
$$Q = a - bP$$

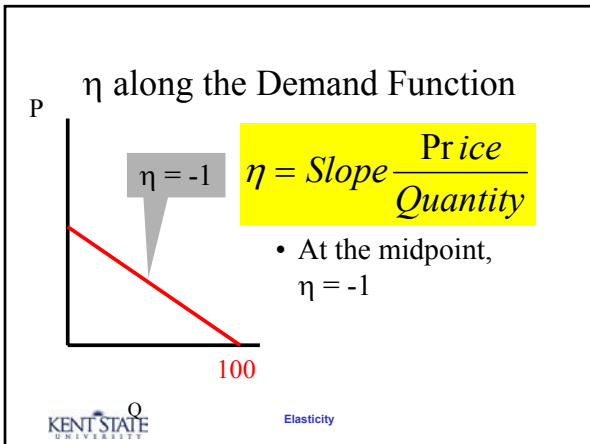
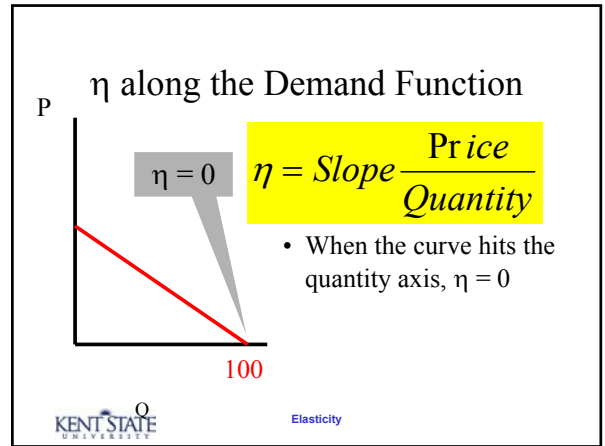
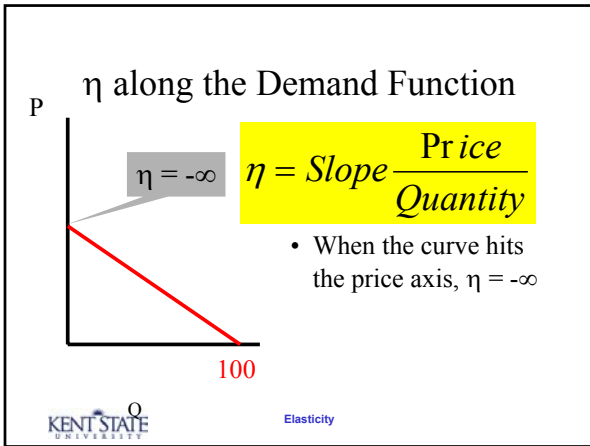
where S
function.

The slope is **-b**

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Next Lecture

- Arc Elasticity
- Extensions

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End

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