Price elasticity of demand

- Principles of Microeconomics, lecture 5
- Sample deck written by Exam Twin. Not from a real class.

Definition

- Price elasticity of demand = % change in quantity demanded / % change in price
- Report it as a positive number (the absolute value)
- Midpoint method: divide each change by the average of the start and end values

Reading the number

- Elastic: greater than 1, quantity responds a lot
- Inelastic: less than 1, quantity responds a little
- Unit elastic: exactly 1

What makes demand elastic

- Many close substitutes
- A large share of the budget
- A long time to adjust
- Luxuries are more elastic than necessities

Elasticity and total revenue

- Total revenue = price x quantity
- If demand is elastic, a price rise lowers total revenue
- If demand is inelastic, a price rise raises total revenue

Worked example

- Price rises from $4 to $6 and quantity falls from 120 to 80
- Midpoint % change in quantity = 40 / 100 = 40%
- Midpoint % change in price = 2 / 5 = 40%
- Elasticity = 40% / 40% = 1, so demand is unit elastic

Other elasticities

- Income elasticity: positive for normal goods, negative for inferior goods
- Cross-price elasticity: positive for substitutes, negative for complements

ON THE EXAM

Exam reminder

- Expect a midpoint-method calculation like the worked example
- Know the total revenue test