AP MICROECONOMICS • EXERCISE SHEET

2.3 Price Elasticity of Demand

Name: ____________ Class: ________ Date: __________ **Total: 9 marks**

KEY WORDS elastic 富有弹性 • inelastic 缺乏弹性 • price elasticity of demand 需求价格弹性 • total revenue 总收入 • total revenue test 总收益检验

Objective

Build the skills to answer exam questions on **price elasticity of demand**.

You must be able to:

- define **price elasticity of demand (PED) 需求价格弹性**
- calculate PED using the **midpoint (arc) method 中点法**
- classify demand as **elastic**, **inelastic**, or **unit elastic**
- use the **total revenue test 总收益检验**

1 Worked examples

Study these first. Each one shows the method for a question type used later.

PED

$$\text{PED} = \frac{\%\Delta Q_d}{\%\Delta P},$$

using the **midpoint method**, where each percentage change is divided by the **average** of the two values. Take the absolute value.

Classification

$|\text{PED}| > 1$ elastic; < 1 inelastic; $= 1$ unit elastic.

Total revenue test

If demand is **elastic**, cutting price **raises** total revenue; if **inelastic**, raising price raises revenue.

2 Practice

2.1 Define price elasticity of demand. [1]

2.2 Price rises from \$10 to \$12 and quantity demanded falls from 100 to 80. Find the PED (midpoint method). [2]

2.3 State whether demand is elastic or inelastic if $|\text{PED}| = 0.5$. [1]

3 Exam-style questions

3.1 Demand is elastic when $|\text{PED}|$ is [1]

A less than 1
B equal to 1
C greater than 1
D zero

3.2 If demand is inelastic, raising the price will [1]

A raise total revenue
B lower total revenue
C leave revenue unchanged
D raise quantity demanded

3.3 A good has few substitutes and takes only a small share of income.

(a) State whether its demand is likely elastic or inelastic. [1]

(b) If the firm wants more revenue, state whether it should raise or lower the price. [1]

(c) Name one determinant of PED. [1]