

1.2 Consumer behaviour, demand and elasticities

Name: _____ Class: _____ Date: _____ Total: 26 marks

KEY WORDS price elasticity of demand • total revenue

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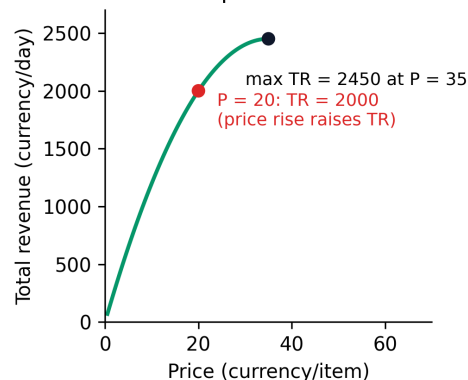
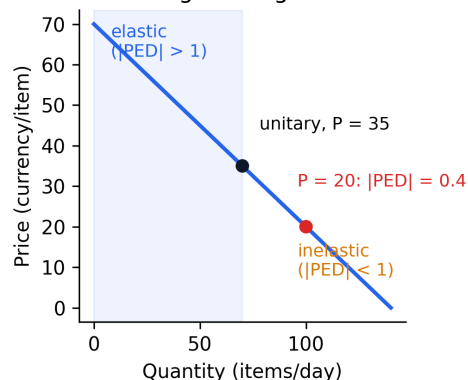
Objective

Apply rationality and its limits, movements versus shifts of demand, diminishing marginal utility, and calculate and interpret PED, YED and XED with total revenue (spec 1.3.2, rows 1–3). All calculations use the shared model $Q_d = 140 - 2P$.

1 Key knowledge and worked examples

Demand and elasticities. Rational consumers maximise utility (firms maximise profit), but herding, habit, inertia, computation limits, the need to feel valued and framing bend this. Own-price changes move **ALONG** the demand curve; substitutes' prices, complements' prices, real income, tastes, population and advertising **SHIFT** it. $PED = \% \Delta Q_d \div \% \Delta P$; $TR = P \times Q$ rises with price exactly when demand is inelastic; along a straight demand curve PED falls from elastic to unitary (midpoint, TR maximised) to inelastic.

PED varies along a straight demand curve Total revenue peaks where $PED = -1$



Both panels are computed from the shared demand curve.

2 Practice

2.1 State the rationality assumption for consumers and for firms, and give one reason consumers may not maximise utility. [2]

2.2 For each event on the market for tea, state movement along or shift (and direction): (a) the price of tea falls; (b) the price of coffee rises. [2]

2.3 On $Q_d = 140 - 2P$, price rises from 20 to 22. Calculate PED. [3]

2.4 Calculate total revenue at prices 20 and 22, and state what the pair implies about demand. [3]

2.5 Incomes rise by 10% and the quantity of a good demanded rises by 8%. Calculate YED and classify the good. [3]

2.6 The price of good B rises 10% and the quantity demanded of good A rises 10%. Calculate XED and state the relationship. [2]

2.7 Explain, using diminishing marginal utility, why a consumer only buys a second identical item at a lower price. [2]

3 Exam-style questions

3.1 (*Original.*) A firm sells 100 items per day at 20 currency units each on the demand curve $Q_d = 140 - 2P$. Using elasticity, advise the firm on the price that maximises total revenue, showing the revenue at that price. [5]

3.2 (*Original.*) Explain why the price elasticity of demand for a branded medicine is likely to differ from that for salt, naming two factors from the specification. [4]
