

Demand, supply, equilibrium and elasticity

Pearson Edexcel · International GCSE · Economics

Pearson Edexcel International GCSE in Economics (4EC1), specification Issue 3, February 2026. This topic covers spec sections 1.1.3–1.1.4 in full: demand, supply and market equilibrium (10 lettered rows) and elasticity (19 rows). The shared market model runs through the worked examples: demand $Q_d = 140 - 2P$, supply $Q_s = 20 + 4P$, equilibrium $P = 20$ and $Q = 100$.

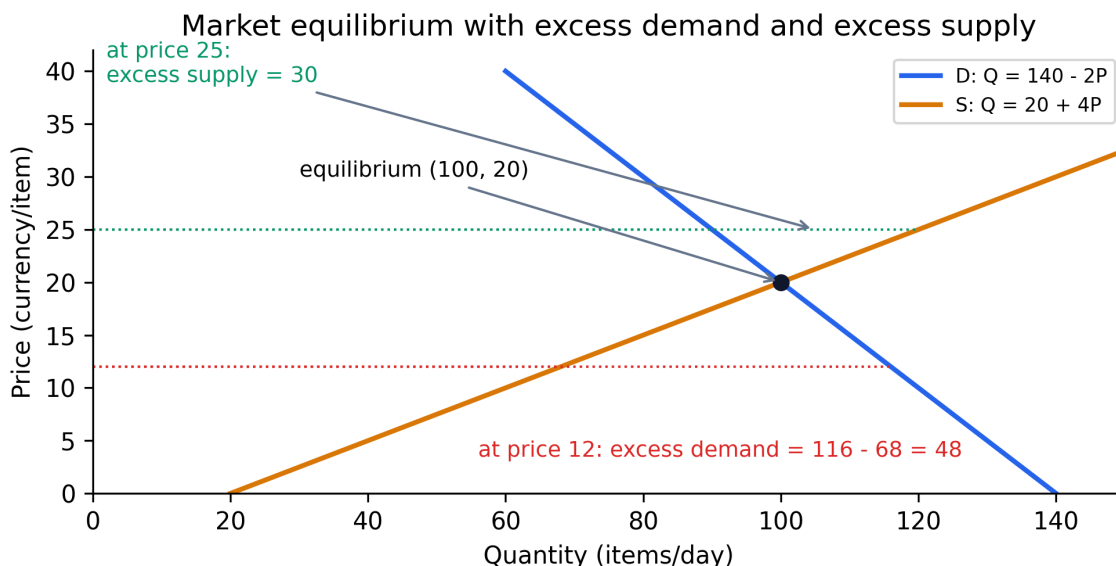
Must-know for this topic:

Family	Relationship
equilibrium	$Q_d = Q_s$ (here $P = 20$, $Q = 100$)
excess	at $P = 12$: excess demand = $116 - 68 = 48$; at $P = 25$: excess supply = $120 - 90 = 30$
PED	= $\frac{\% \Delta Q_d}{\% \Delta P}$; TR test: price up and TR up $\rightarrow$ inelastic
PES / YED	= $\frac{\% \Delta Q_s}{\% \Delta P} / = \frac{\% \Delta Q_d}{\% \Delta \text{income}}$ (luxury > 1 , normal > 0 , inferior < 0)

Demand, supply and market equilibrium

Demand is the quantity consumers are willing AND able to buy at each price over a period (1.1.3a). A change in the good's own price causes a MOVEMENT ALONG the demand curve; a change in any other determinant SHIFTS it – advertising, income, fashion and tastes, the price of SUBSTITUTES (a rise shifts demand for this good right) and of COMPLEMENTS (a rise shifts it left), and demographic changes (1.1.3b–c). **Supply** is the quantity producers are willing AND able to sell at each price (1.1.3d); own-price changes move ALONG the supply curve, while costs of production, technology, indirect taxes, subsidies and natural factors (disasters, weather) SHIFT it (1.1.3e–f).

Equilibrium is where demand meets supply: $140 - 2P = 20 + 4P$ gives $P^* = 20$ currency units and $Q^* = 100$ items/day (1.1.3g). Shift analysis (1.1.3h): demand rising raises both equilibrium price and quantity; supply rising raises quantity but lowers price; both shifting leaves one variable indeterminate. EXCESS DEMAND at $P = 12$: $Q_d = 116$ against $Q_s = 68$, a shortage of 48; EXCESS SUPPLY at $P = 25$: $Q_s = 120$ against $Q_d = 90$, a surplus of 30 (1.1.3i). Market forces remove both: shortage bids the price UP, surplus pushes it DOWN, until the market returns to equilibrium (1.1.3j).



Original model: the shortage at 12 and the surplus at 25 are computed in the text.

Elasticity

Price elasticity of demand

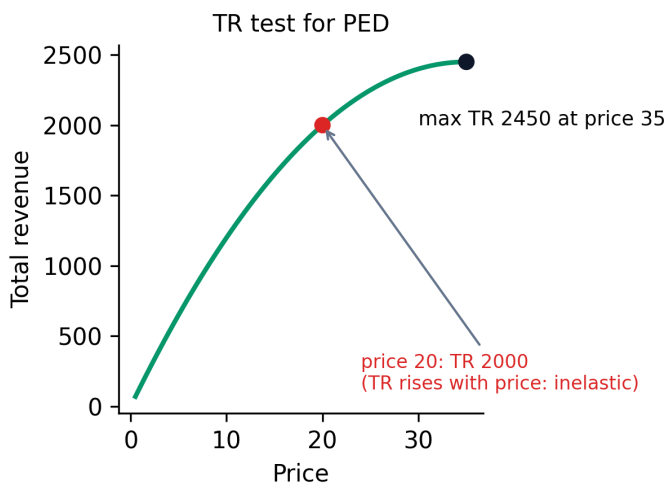
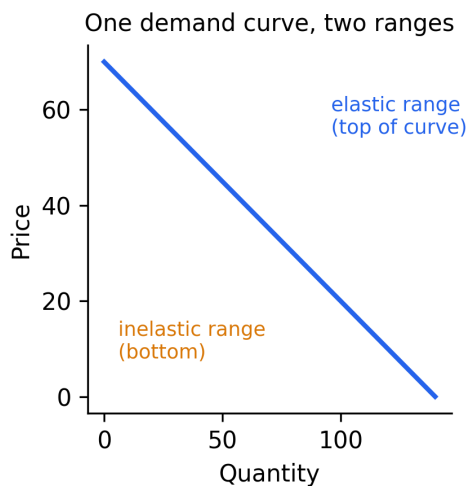
(PED, 1.1.4a–b): $PED = \frac{\% \Delta Q_d}{\% \Delta P}$. Calculation: price rising from 20 to 22 moves Q_d from 100 to 96, so $PED = \frac{-4\%}{+10\%} = -0.4$ (1.1.4c). The five interpretations (1.1.4e): 0 perfectly inelastic (vertical), between 0 and -1 inelastic, -1 unitary, beyond -1 elastic, infinite perfectly elastic (horizontal). PED depends on substitutes, the degree of necessity, the percentage of income spent on the good, and time (1.1.4f). The TOTAL REVENUE test (1.1.4g): $TR = P \times Q$; at $P = 20$, $TR = 2000$; at $P = 22$, $TR = 2112$ – a price rise RAISING revenue proves inelastic demand; on the shared curve TR peaks at 2450 where $P = 35$ (unitary PED).

Price elasticity of supply

(PES, 1.1.4h–l): $PES = \frac{\% \Delta Q_s}{\% \Delta P}$; on the shared model price 20 $\rightarrow$ 24 moves Q_s 100 $\rightarrow$ 116, so $PES = \frac{16\%}{20\%} = +0.8$ (inelastic supply). PES depends on the factors of production (their mobility), availability of stocks, spare capacity and time (1.1.4m). Examples (1.1.4n): manufactured products tend to be MORE elastic (stocks, spare capacity, quick retooling); primary products LESS elastic (growing periods, perishability, fixed land).

Income elasticity of demand

(YED, 1.1.4o–q): $YED = \frac{\% \Delta Q_d}{\% \Delta \text{income}}$; income $+10\%$ raising quantity $+8\%$ gives $YED = +0.8$. Interpretation (1.1.4r): $YED > 1$ LUXURY, a normal necessity has $0 < YED < 1$, $YED = 1$ means unit income elasticity, and $YED < 0$ means INFERIOR. Significance (1.1.4s): PED guides indirect taxes (inelastic goods raise reliable revenue) and subsidies; YED guides firms' forecasts over the cycle – luxury sellers boom with incomes, demand for inferior goods may rise as incomes fall, holding other influences constant.



Original model: elastic at the top of the demand curve, inelastic at the bottom; TR peaks where PED is unitary.

Checklist

- Demand and supply definitions; movements versus shifts with the five demand and five supply determinants (1.1.3a–f).
- Equilibrium from $Q_d = Q_s$; shift analysis; excess demand 48 at $P = 12$ and excess supply 30 at $P = 25$; market-force adjustment (1.1.3g–j).
- PED definition, formula, calculation (-0.4), the five value ranges, four influence factors, the TR test ($2000 \rightarrow 2112 \rightarrow 2450$) (1.1.4a–g).
- PES definition, formula, calculation ($+0.8$), five ranges, four factors, manufactured vs primary (1.1.4h–n).
- YED definition, formula, calculation ($+0.8$), luxury/normal/inferior thresholds; significance for business and government (1.1.4o–s).

Boundary notes: Paper 1 (microeconomics, 80 marks) mixes MCQ, short answer, data response and open questions; calculators allowed. Use precise definitions; diagram marks need labelled axes, curves, equilibria and the shift arrow. All worked numbers are original on the shared model.