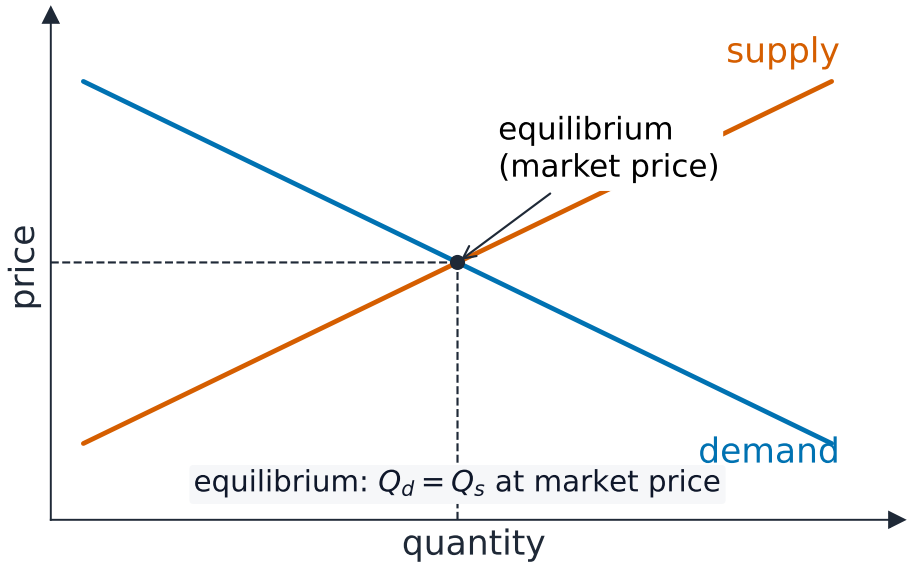
Exercise walk-through

2.1

Choice, models and market adjustment / Elasticity, welfare and policy

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Figure: Demand, supply, equilibrium and elasticity



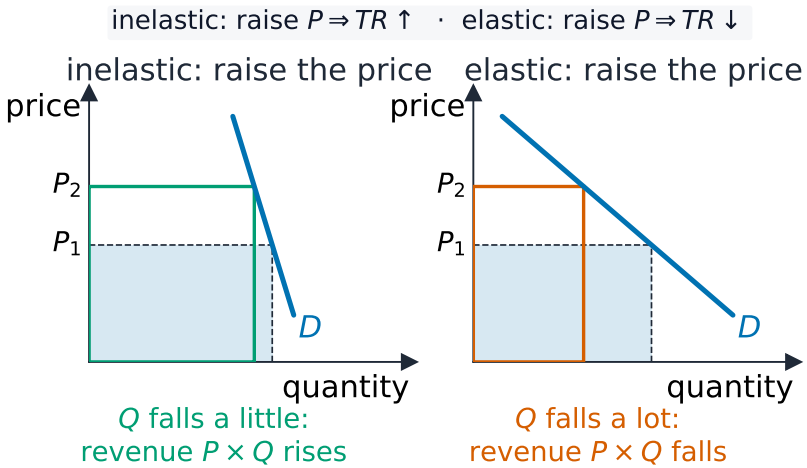
- Demand slopes down; supply slopes up.
- Where they cross sets the market price.

Elasticity (3)

- whether they have **spare capacity** : idle machines and workers;
- **time**: supply becomes more elastic in the long run.
- **YED above 1**: a **luxury** , such as foreign holidays. Demand grows faster than income.

$$YED = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

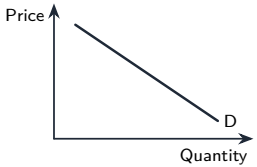
Figure: Elasticity



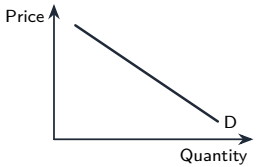
- The same price rise raises revenue when demand is **inelastic**, but lowers it when demand is elastic.
- Match each part of the diagram to the text.

Exercises 2.1·2.2

2.1 Define demand and state whether a fall in the good's own price shifts or moves along its demand curve. [2]

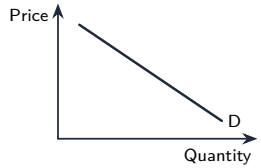


2.2 Name any four factors that shift the demand curve. [2]



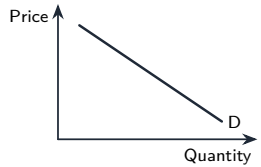
Exercises 2.1·2.2

2.1 Define demand and state whether a fall in the good's own price shifts or moves along its demand curve. [2]



2.1 Demand is the quantity consumers are willing AND able to buy at each price over a period. A fall in the good's own price is a MOVEMENT ALONG the curve (quantity rises).

2.2 Name any four factors that shift the demand curve. [2]

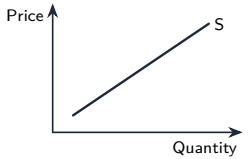


2.2 Any four of: advertising; income; fashion and tastes; price of substitute goods; price of complementary goods; demographic changes.

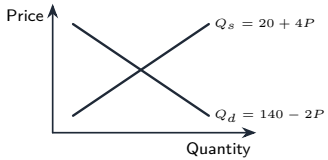
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Setup for exercise 2.3

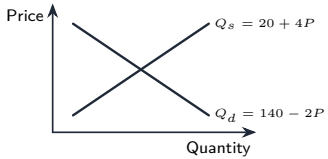
2.3 Name any three factors that shift the supply curve. [2]



2.4 Solve the model's equilibrium price and quantity. [2]



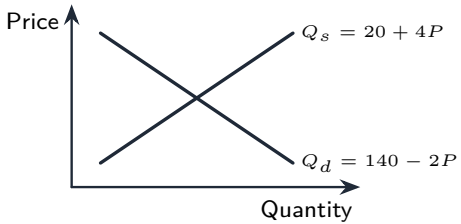
2.5 At P = 12, calculate the excess demand. [2]



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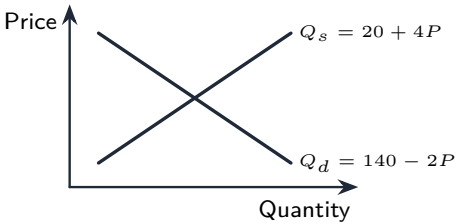
Exercise 2.3

2.6 At P = 25, calculate the excess supply. [2]



Exercise 2.3

2.6 At P = 25, calculate the excess supply. [2]



2.3 Any three of: costs of production; changes in technology; indirect taxes; subsidies; natural factors (natural disasters and weather).

2.4 $140 - 2P = 20 + 4P$ gives $120 = 6P$, so $P = 20$ and $Q = 100$.

2.5 $Q_d(12) = 140 - 24 = 116$; $Q_s(12) = 20 + 48 = 68$; excess demand $= 116 - 68 = 48$ items.

2.6 $Q_s(25) = 20 + 100 = 120$; $Q_d(25) = 140 - 50 = 90$; excess supply $= 120 - 90 = 30$ items.

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Exercise 3.1

3.1 *(Original.)* The price rises from 20 to 22 and quantity demanded falls from 100 to 96. Calculate PED and use the total revenue test to classify demand over this range. [4]

price: 20 → 22

quantity demanded: 100 → 96

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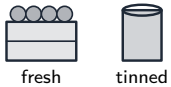
price: 20 → 22

quantity demanded: 100 → 96

3.1 $\%\Delta Q_d = -4\%$ (from 100 to 96); $\%\Delta P = +10\%$ (from 20 to 22); $PED = -4 \div 10 = -0.4$. TR at $20 = 2000$; TR at $22 = 22 \times 96 = 2112$. Revenue ROSE when price rose, so demand is price INELASTIC ($|PED| = 0.4 < 1$) over this range.

Exercise 3.2

3.2 *(Original.)* The price rises from 20 to 24 and quantity supplied rises from 100 to 116. Calculate PES, interpret it, and explain why the PES of fresh strawberries is lower than the PES of tinned strawberries. [4]

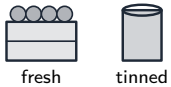


3.3 *(Original.)* Incomes rise 10% and the quantity of bus travel demanded falls 4%. Calculate YED and classify the good; state what happens to demand for bus travel in a recession. [3]



Exercise 3.2

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3.3 *(Original.)* Incomes rise 10% and the quantity of bus travel demanded falls 4%. Calculate YED and classify the good; state what happens to demand for bus travel in a recession. [3]



3.2 $\%\Delta Q_s = +16\%$ (100 to 116); $\%\Delta P = +20\%$ (20 to 24); $PES = 16 \div 20 = +0.8$: supply is inelastic (quantity responds less than proportionately). Fresh strawberries are perishable and grow in season – no stocks, no spare capacity, fixed land – so their PES is

Full solution on next slide

Full solution 3.2

3.2 $\%\Delta Q_s = +16\%$ (100 to 116); $\%\Delta P = +20\%$ (20 to 24); $PES = 16 \div 20 = +0.8$: supply is inelastic (quantity responds less than proportionately). Fresh strawberries are perishable and grow in season – no stocks, no spare capacity, fixed land – so their PES is low; tinned strawberries can be stocked and production scaled, so supply is more elastic.

3.3 $YED = -4 \div 10 = -0.4$: negative, so bus travel is an INFERIOR good. In a recession incomes fall, so the quantity of bus travel demanded RISES (the income effect reverses).

Local review guidance: percentage changes computed before dividing, sign convention stated; the TR test quoted with both revenues; (R1) the PES contrast names stocks, capacity and perishability. This is authored classroom guidance.