Week 7

A-Level Economics

Homework bundle for this week

本周作业合集

exercises.lol

Contents 目录

A-Level Economics Name: ________________ Score: ______

1. The law of demand says that, other things equal, as price rises quantity demanded:
   - ☐ falls
   - ☐ rises
   - ☐ stays the same
   - ☐ becomes zero
2. The supply curve slopes upward because, as price rises, firms:
   - ☐ are willing to supply more
   - ☐ supply less
   - ☐ leave the market
   - ☐ lower their prices
3. Price rises 20% and quantity demanded falls 10%. What is the PED (as a decimal, keep the sign)?

   ____
4. Income rises 10% and quantity demanded rises 20%. What is the YED?

   ____
5. Price rises 20% and quantity supplied rises 30%. What is the PES?

   ____
6. Market equilibrium occurs where:
   - ☐ quantity demanded equals quantity supplied
   - ☐ demand is highest
   - ☐ supply is highest
   - ☐ price is zero
7. Consumer surplus is the difference between:
   - ☐ what buyers are willing to pay and what they actually pay
   - ☐ price and cost of production
   - ☐ supply and demand
   - ☐ revenue and profit
8. A rise in consumer income causes:

- ☐ a shift of the demand curve
- ☐ a movement along the demand curve
- ☐ no change
- ☐ a steeper supply curve

9. A change in the good's own price causes a movement along the demand curve, not a shift.

   ☐ True ☐ False

10. A government subsidy shifts the supply curve to the right.

   ☐ True ☐ False

A-Level Economics

1. **falls**

   Higher price → lower quantity demanded; the demand curve slopes downward.

2. **are willing to supply more**

   Higher prices reward production, so quantity supplied rises — an upward curve.

3. **-0.5**

   PED = −10% / +20% = −0.5 (inelastic).

4. **2**

   YED = 20% / 10% = 2 — a normal luxury good.

5. **1.5**

   PES = 30% / 20% = 1.5 — elastic.

6. **quantity demanded equals quantity supplied**

   At equilibrium the curves cross: Qd = Qs and the market clears.

7. **what buyers are willing to pay and what they actually pay**

   It is the value buyers get above the price — the area below demand and above price.

8. **a shift of the demand curve**

   Only the good's own price moves you along the curve; income shifts the whole curve.

9. **True**

   Own-price → movement along; other factors → shift.

10. **True**

    A subsidy lowers effective costs, so firms supply more at each price.

2.1 Demand and supply curves

Name: ____________ Class: ________ Date: __________ **Total: 18 marks**

KEY WORDS demand 需求 • supply 供给 • supply curve 供给曲线 • quantity demanded 需求量 • demand curve 需

Objective

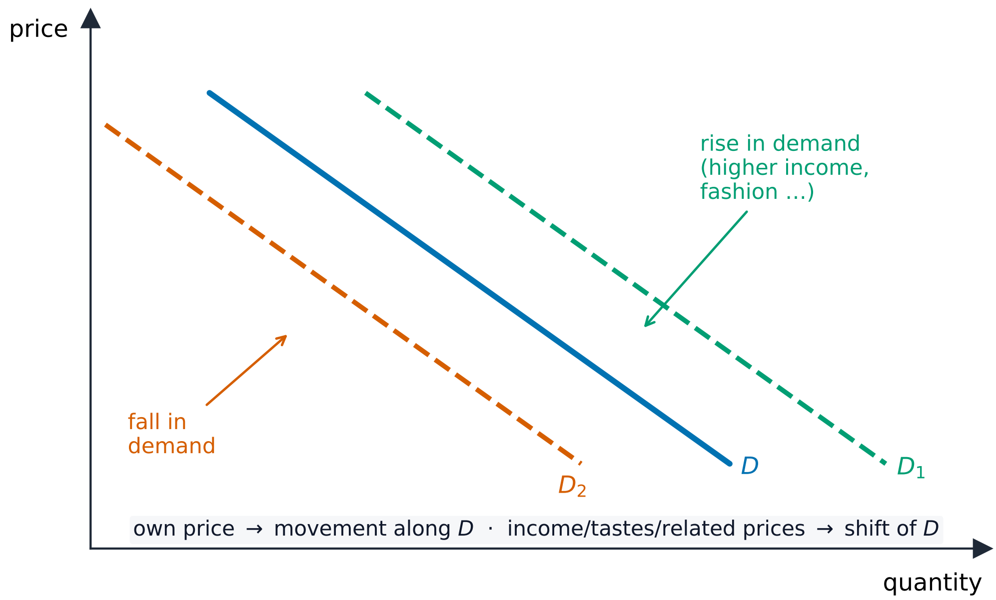
Build the skills to answer exam questions on **demand and supply curves** 需求与供给曲线 — the **laws of demand and supply** 需求与供给定律, the difference between a **movement along** 沿曲线移动 and a **shift** 移动 of a curve, and the **determinants** 决定因素.

You must be able to:

- draw demand and supply curves and explain their slopes
- distinguish a movement along a curve from a shift of the whole curve
- analyse the determinants that shift demand and supply

1 Worked examples

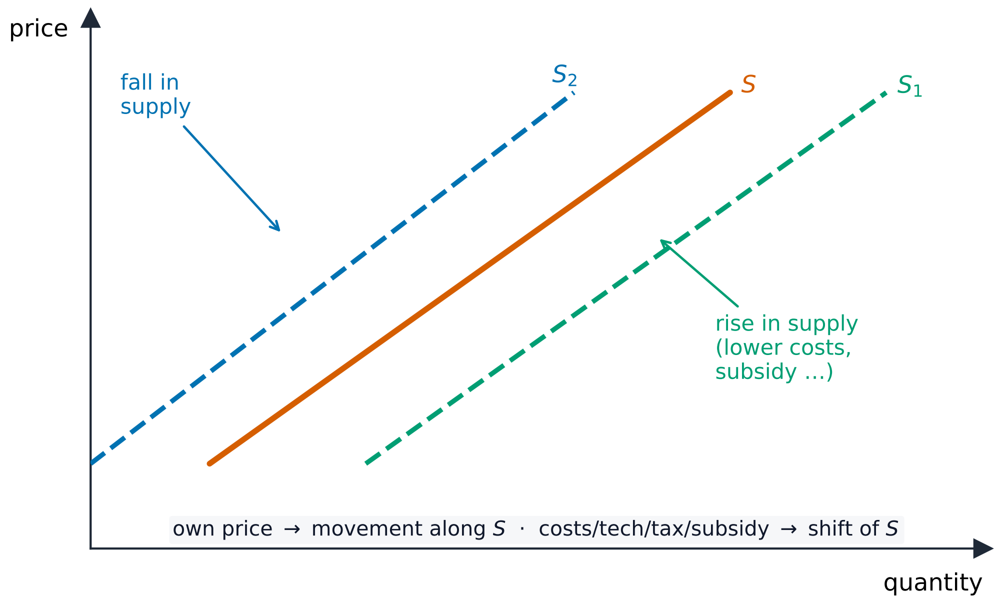
■ Movements and shifts



Own-price change = movement along; any other change = shift of the whole curve

- **Law of demand:** price up → quantity demanded down (curve slopes **down**).

- **Law of supply:** price up → quantity supplied up (curve slopes **up**).
- **Shifts demand:** income, price of a **substitute** 替代品 / **complement** 互补品, tastes, population.
- **Shifts supply:** costs of production, technology, a **subsidy** 补贴 or **tax** 税.



The supply curve and its shifts (the matching analysis for supply)

Answer shapes: an **Explain** [**up to 8**] answer should use a labelled diagram (AO3); **Discuss** [**12**] adds a judgement (AO4).

2 Practice

2.1 Define the term *demand*. [2]

2.2 State two determinants that shift the demand curve. [2]

2.3 State the effect on the demand for coffee of a rise in the price of tea (a substitute). [1]

3 Exam-style questions

3.1 A fall in the good's **own price** is shown on a demand diagram as a: [1]

- **A** rightward shift of the demand curve
- **B** leftward shift of the demand curve
- **C** movement down along the demand curve
- **D** shift of the supply curve

3.2 Using a demand diagram, explain how a rise in consumer income affects the demand for a normal good. [6]

3.3 Explain two determinants that could shift the supply curve of wheat to the left. [6]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the quantity of a good that buyers are willing and able to buy at each price over a period of time (2 for a clear definition; 1 for a partial idea).

2.2 any two of: income; price of a substitute; price of a complement; tastes/fashion; population; advertising (1 + 1).

2.3 the demand for coffee rises (it shifts right) (1).

3.1 C. An own-price change is a movement along the demand curve.

3.2 *[6]* AO1 1 + **AO3 diagram up to 3** (labelled axes price/quantity, demand shifts right $D \to D_1$) + AO2/AO3 up to 2 — higher income raises demand for a normal good → the curve shifts right → at the same price, quantity demanded is higher (and price/quantity rise once supply is added).

3.3 *[6]* For **each** of two determinants: AO1 1 + AO3 up to 2 — e.g. *higher input costs*: dearer fertiliser raises production costs → firms supply less at each price → supply shifts left. *Bad weather*: a poor harvest cuts output → less wheat supplied at each price → supply shifts left. Maximum 3 each.

4 A student chooses to study for a degree in engineering at university rather than take a job working as an apprentice engineer. The apprenticeship lasts five years and involves training while working.

What will decrease the opportunity cost of this choice?

A a decrease in the wages paid to apprentice engineers

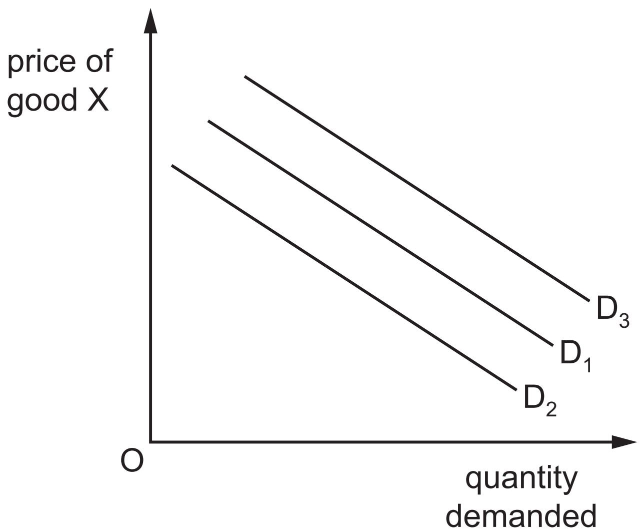
B a decrease in the number of students studying engineering degrees

C a decrease in the number of top grade engineering degrees awarded

D a decrease in the length of an engineering apprenticeship to four years

A-Level Economics: **w25 13**

7 Market demand curves normally slope downwards. They may also shift from D_1 to either D_2 or D_3.



What would cause a movement along D_1 for good X and **not** a shift to either D_2 or D_3?

A advertising of good X increases sales

B consumer incomes rise

C the price of good X falls

D the prices of other goods fall

A-Level Economics: **s25 12**

9 An increase in which variable will **always** lead to an increase in the consumer surplus?

A cost of production

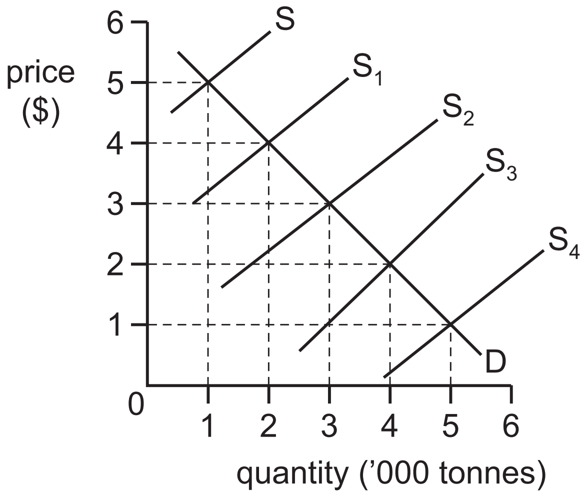
B maximum price

C minimum price

D subsidy

15 In the diagram, D is the demand curve of an agricultural commodity and S is the initial supply curve.

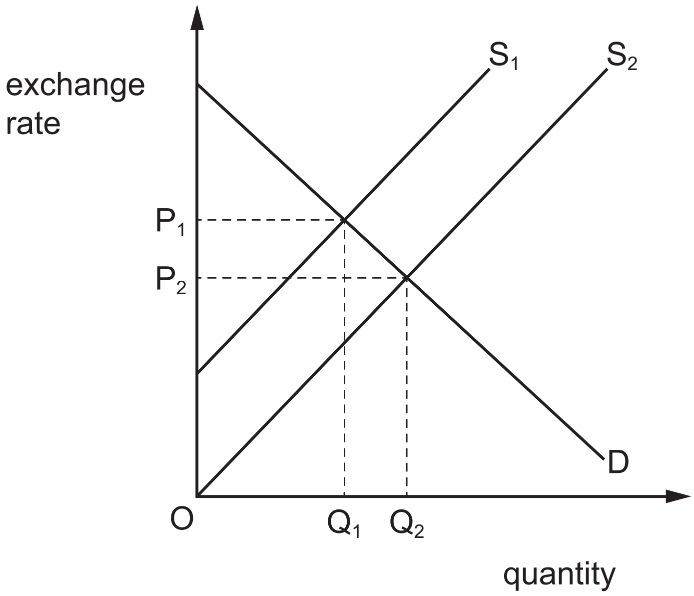
The government promises to maintain farmers' incomes at least at this initial level. The harvests in four subsequent years are shown by supply curves S_1–S_4.



How much in total will the government need to pay to support farmers over the four subsequent years?

A $0 **B** $3000 **C** $6000 **D** $10 000

30 The Euro (€) is the main currency of the European Union. The diagram shows the exchange rate between the Euro and the US dollar.



What is likely to have caused this change in the value of the Euro?

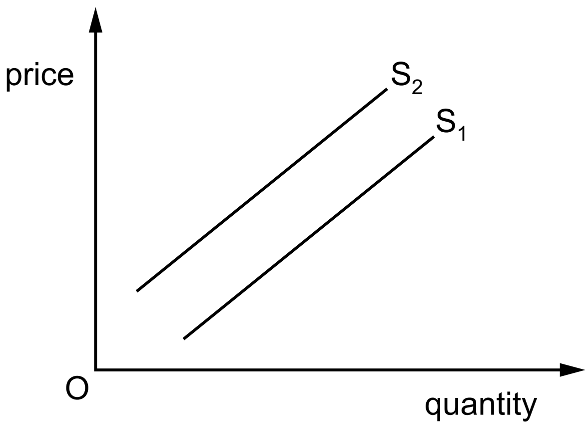
A a decrease in European Union inflation

B a decrease in US interest rates

C an increase in European Union imports

D an increase in European Union unemployment

5 The diagram shows a shift in a firm's supply curve from S_1 to S_2.



What may have caused the shift from S_1 to S_2?

A a decrease in the costs of production of the firm

B a decrease in the popularity of the firm's product

C a decrease in the subsidy on the good

D a decrease in the tax on the good

2.2 Price elasticity, income elasticity and cross elasticity of demand

Name: ________ Class: ______ Date: ________ **Total: 19 marks**

KEY WORDS elasticity of demand 需求弹性 • price elasticity of demand 需求价格弹性 • cross elasticity of demand • total revenue 总收益 • cross (xed) 交叉弹性

Objective

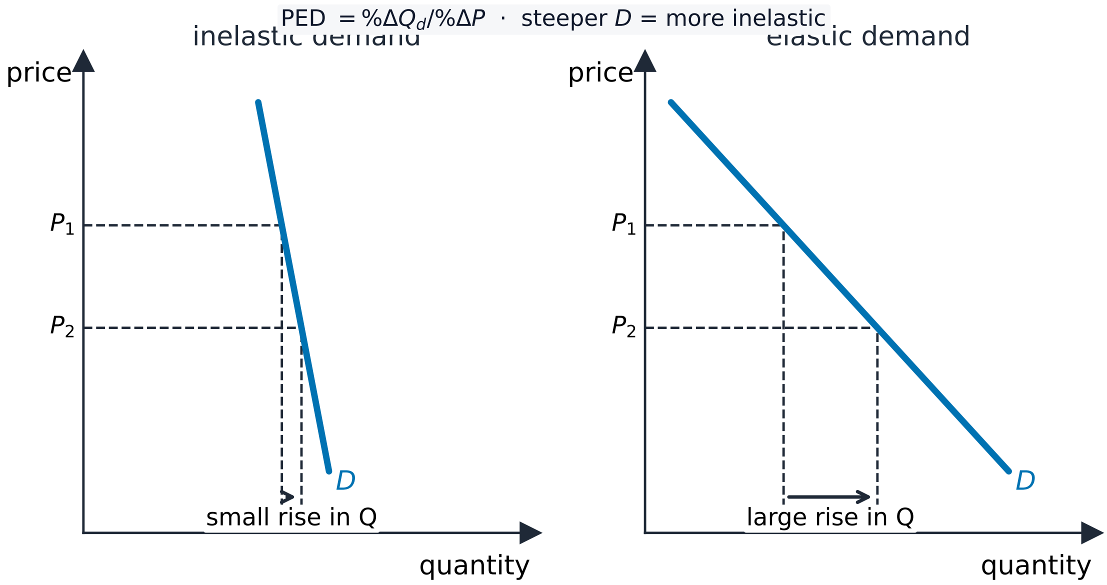
Build the skills to answer exam questions on **elasticity of demand 需求弹性 — price (PED) 价格弹性**, **income (YED) 收入弹性** and **cross (XED) 交叉弹性** elasticity, their formulae, and the link between **PED and total revenue 总收益**.

You must be able to:

- calculate and interpret PED, YED and XED
- classify goods (elastic/inelastic; normal/inferior; substitute/complement)
- analyse the link between PED and total revenue

1 Worked examples

■ The three elasticities



Inelastic: quantity barely moves; elastic: quantity moves a lot

$$\text{PED} = \frac{\%\Delta Q_d}{\%\Delta P} \qquad \text{YED} = \frac{\%\Delta Q_d}{\%\Delta Y} \qquad \text{XED} = \frac{\%\Delta Q_{d,A}}{\%\Delta P_B}$$

- **PED:** price +10%, quantity −25% → $\frac{-25}{10} = -2.5$ → **elastic** (ignore the sign).
- **YED:** income +20%, demand +30% → +1.5 → **normal**, a **luxury** 奢侈品 (>1).
- **XED:** tea price +10%, coffee +4% → +0.4 → **substitutes** 替代品 (positive).
- **TR link:** if demand is inelastic, a price **rise** raises total revenue; if elastic, a price **fall** raises it.

Answer shapes: AO1 + AO2 + AO3 (analysis) + AO4 (judgement, for evaluate questions).

2 Practice

2.1 Define *price elasticity of demand (PED).* [2]

2.2 The price of a good falls by 5% and quantity demanded rises by 15%. Calculate the PED and classify the demand. [2]

2.3 A 10% rise in income causes a 4% fall in demand for a good. Calculate the YED and classify the good. [2]

3 Exam-style questions

3.1 A good has a PED of 0.4. To raise total revenue, the firm should: [1]

- **A** lower the price
- **B** raise the price
- **C** keep the price the same
- **D** stop producing the good

3.2 When the price of good B rises by 20%, the demand for good A rises by 5%.

(a) Calculate the cross elasticity of demand (XED). [2]

(b) State, with a reason, the relationship between goods A and B. [2]

3.3 Discuss the usefulness of price elasticity of demand to a firm setting its prices. [8]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 a measure of how much the quantity demanded responds to a change in the good's price, equal to $\%\Delta Qd \div \%\Delta P$ (2 for a clear definition; 1 for a partial idea).

2.2 PED $= \frac{+15}{-5} = -3$; ignoring the sign, $3 > 1$, so demand is **elastic** (2; award 1 for a correct value with no classification).

2.3 YED $= \frac{-4}{+10} = -0.4$; negative, so the good is **inferior** (2; award 1 for a correct value with no classification).

3.1 B. With PED 0.4 (inelastic), raising the price raises total revenue.

3.2 (a) XED $= \frac{+5}{+20} = +0.25$ (2; award 1 for a correct method with the wrong figure). (b) positive XED, so A and B are **substitutes** — a rise in B's price makes buyers switch to A (2 for relationship + reason; 1 for relationship only).

3.3 *[8]* AO1/AO2/AO3 up to 5 + AO4 up to 3. **Useful:** PED predicts how a price change affects quantity and total revenue, helping the firm price for maximum revenue and judge a tax or discount. **Limits:** PED values come from estimates, change over time, and assume ceteris paribus; rivals may react. Judgement: PED is a valuable guide for pricing, but only alongside knowledge of costs and competitors — its usefulness depends on how reliable the estimate is.

7 The curve in the diagram shows a relationship between the price and the quantity of a product. It has not been given a label.

What is an accurate description of the curve?

A a perfectly elastic demand curve

B a perfectly inelastic supply curve

C a relatively elastic supply curve

D a unitary elastic demand curve

8 Which statement is true if the income elasticity of demand for a good has a value of –0.2?

A When income rises less of the good is bought.

B When income rises more of the good is bought.

C When price falls more of the good is bought.

D When price rises less of the good is bought.

9 The table shows the price of a good and total expenditure on the good during specific periods when the market is in equilibrium.

period	price ($)	total expenditure ($)
1	12	96 000
2	5	40 000
3	8	64 000
4	10	80 000
5	4	32 000

What can be deduced from this data?

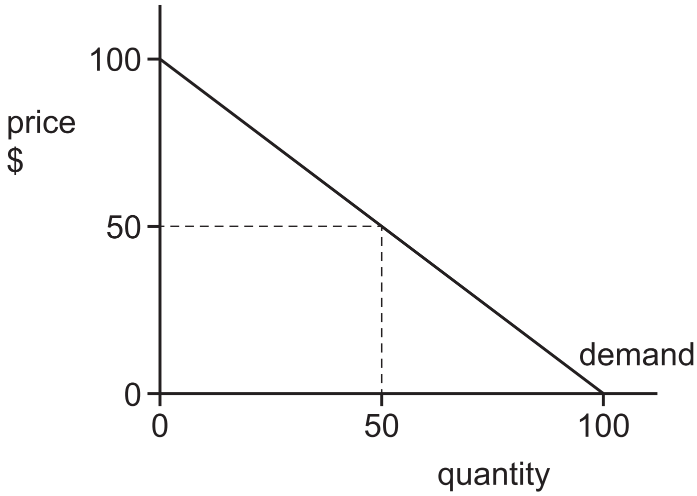
A The good has constant opportunity cost.

B The good is an inferior good.

C The price elasticity of demand is equal to one.

D The price elasticity of supply is equal to zero.

8 The diagram shows the demand curve for a product.



What is the price at which the price elasticity of demand is unit elastic?

A $0

B $50

C $100

D every price along the demand curve

A-Level Economics: **w25 12**

9 Public transport in an economy has an income elasticity of demand of –0.36.

What does this mean about public transport?

A It is an inferior good.

B It is a necessity.

C It is a normal good.

D It has close substitutes.

A-Level Economics: **w25 13**

6 A good is provided by the government. Consumption by one person does not affect the amount of the good available for others.

Which type of good must this be?

A complementary good

B merit good

C private good

D public good

9 Good X has an income elasticity of demand (YED) value of –0.8. Its cross elasticity of demand (XED) with respect to good Y is also –0.8.

What are the characteristics of good X?

A a normal good that is a complement to good Y

B a normal good that is a substitute for good Y

C an inferior good that is a complement to good Y

D an inferior good that is a substitute for good Y

A-Level Economics: **w25 21**

2 **(a)** With the help of a formula, explain what is meant by price elasticity of demand for a product **and** consider the importance of time in determining whether demand for the product is likely to be relatively price elastic or relatively price inelastic. [8]

(b) Assess whether knowledge of a product's income elasticity of demand is more important to a firm producing it than knowledge of its cross elasticity of demand. [12]

OR

7 A manufacturer increases the price of a product from \$4 in an attempt to increase total expenditure on the product.

The table shows the outcome of the policy.

price (\$)	total expenditure 000s (\$)
4	400
5	500
6	600

What is the price elasticity of demand for the product?

A perfectly elastic

B perfectly inelastic

C relatively elastic

D relatively inelastic

2.3 Price elasticity of supply

Name: ______________ Class: __________ Date: ____________ **Total: 19 marks**

KEY WORDS price elasticity of supply 供给价格弹性 • supply 供给 • price 价格 • short run 短期 • stocks 库存

Objective

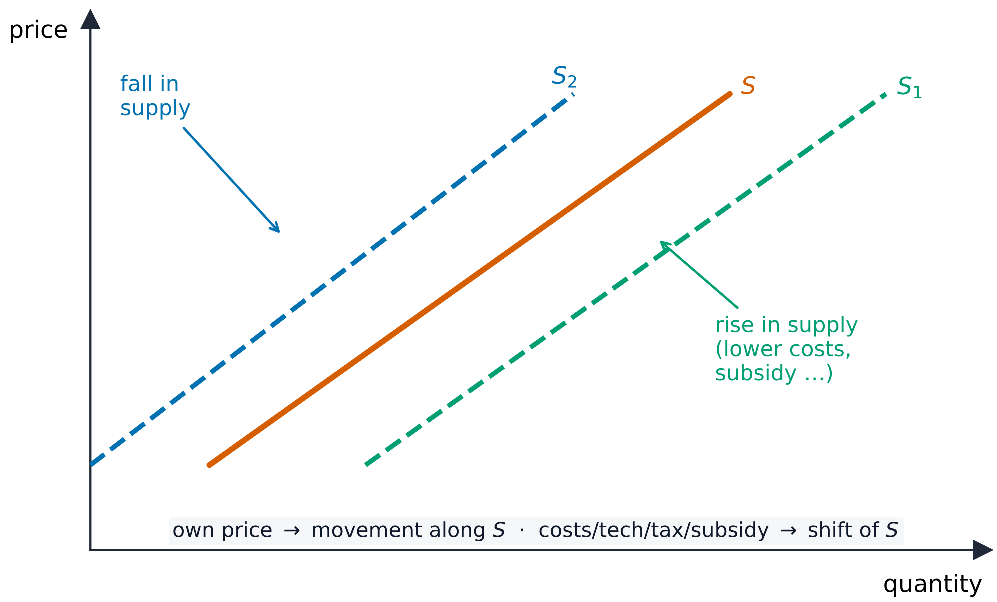
Build the skills to answer exam questions on **price elasticity of supply** 供给价格弹性 (PES) — its formula, what makes supply more or less elastic, and the role of **time** 时间.

You must be able to:

- calculate and interpret PES
- explain the determinants of PES (spare capacity, stocks, mobility, time)
- analyse why supply is more elastic in the long run

1 Worked examples

■ Price elasticity of supply



PES measures how strongly quantity supplied responds to a price change

$$\text{PES} = \frac{\%\Delta Q_s}{\%\Delta P}$$

- **Worked:** price +8%, quantity supplied +4% → $\frac{4}{8} = 0.5$ → **inelastic** (<1).
- **More elastic supply when:** there is **spare capacity** 闲置产能, **stocks** 库存, mobile factors, and more time.
- **Time:** momentary (PES = 0) → short run (a little) → long run (most elastic).

Answer shapes: AO1 + AO2 + AO3 (analysis) + AO4 (judgement, for evaluate questions).

2 Practice

2.1 Define *price elasticity of supply (PES).* [2]

2.2 Price rises by 20% and quantity supplied rises by 30%. Calculate the PES and classify the supply. [2]

2.3 State two factors that make supply more elastic. [2]

3 Exam-style questions

3.1 Supply is most likely to be **price inelastic** when: [1]

- **A** firms have spare capacity
- **B** there are large stocks of the good
- **C** the good takes a long time to produce
- **D** factors of production move easily into the industry

3.2 Explain why the supply of a good is usually more elastic in the long run than in the short run. [6]

3.3 Explain, with an example, why the supply of agricultural products is often price inelastic. [6]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 a measure of how much the quantity supplied responds to a change in price, equal to $\%\Delta Qs \div \%\Delta P$ (2 for a clear definition; 1 for a partial idea).

2.2 PES $= \frac{+30}{+20} = +1.5$; greater than 1, so supply is **elastic** (2; award 1 for a correct value with no classification).

2.3 any two of: spare capacity; large stocks; easily mobile factors of production; more time (1 + 1).

3.1 **C**. A long production time makes supply slow to respond, so it is inelastic.

3.2 *[6]* AO1 1 + AO3 up to 5 — in the short run at least one factor is fixed, so firms can increase output only a little when price rises; in the long run all factors can be varied (new machines, more workers, new firms enter) → output can respond fully → supply is more elastic.

3.3 *[6]* AO1 1 + AO2/AO3 up to 5 — crops take a growing season to produce, so a price rise cannot raise this year's output (momentary/short-run supply is fixed); farmers also cannot store some perishable goods → quantity supplied responds little to price → supply is inelastic.

10 Which type of good is most suitable for a successful buffer stock scheme?

	easy to produce	cheap to store	perishable
A	yes	yes	yes
B	yes	no	no
C	no	yes	no
D	no	no	yes

10 Four firms produce furniture. The table shows the price elasticity of supply (PES) for each firm.

If the price of furniture rises by 5% which firm would experience an increase in quantity supplied of 2.5%?

firm	PES for furniture
A	2.5
B	2.0
C	0.6
D	0.5

6 Which factor affects the price elasticity of supply of a product?

A availability of stocks

B percentage of income spent on the product

C price of substitutes

D wage rate

3 **(a)** Explain what determines elastic and inelastic price elasticity of supply (PES) **and** consider the extent to which the value of PES may differ between an agricultural good and a manufactured good. [8]

(b) Firms will often try to estimate elasticity values to judge the possible success of decisions to change prices or to introduce new products.

Assess the extent to which an understanding of income elasticity of demand (YED) may be more useful than cross elasticity of demand (XED) in increasing the income from sales for a firm. [12]

Section C

Answer **one** question.

EITHER

8 What would best explain why the price elasticity of supply (PES) is likely to be lower for fresh vegetables grown within a country compared to the PES of goods manufactured in that country?

A Alternative supplies can be flown in from foreign producers.

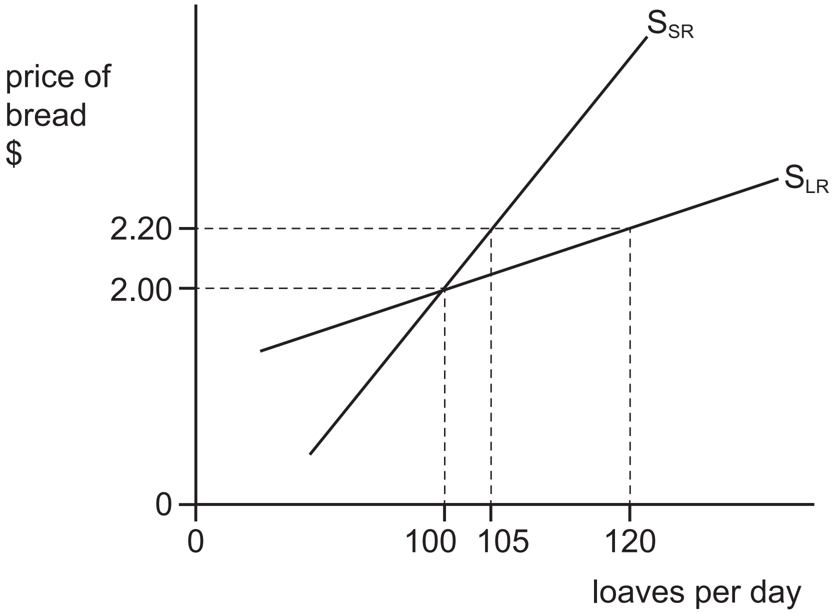
B A positive price change encourages a positive output change along the supply curve.

C Fresh vegetables has a horizontal supply curve.

D There is a seasonal time lag involved in planting and harvesting more fresh vegetables.

8 The diagram shows the short-run supply curve (S_{SR}) and long-run supply curve (S_{LR}) for a bakery.

The price of a loaf of bread increases from \$2.00 to \$2.20.



What is the bakery's price elasticity of supply (PES) in the short run and in the long run when the price of a loaf of bread increases?

	short run	long run
A	0.5	2.0
B	0.5	1.4
C	2.0	0.7
D	2.0	0.5

8 A firm establishes that the price elasticity of supply of its product has a value of 0.3.

What is likely to be true about the firm?

A It has unused productive capacity.

B It has a lot of stock of its product.

C It uses a high proportion of perishable raw materials.

D It uses factors of production that are easily substituted.

2.4 The interaction of demand and supply

Name: ______________ Class: __________ Date: ____________ **Total: 26 marks**

KEY WORDS equilibrium 均衡 • equilibrium price 均衡价格 • excess demand 超额需求 • excess supply 超额供给 • disequilibrium 非均衡

Objective

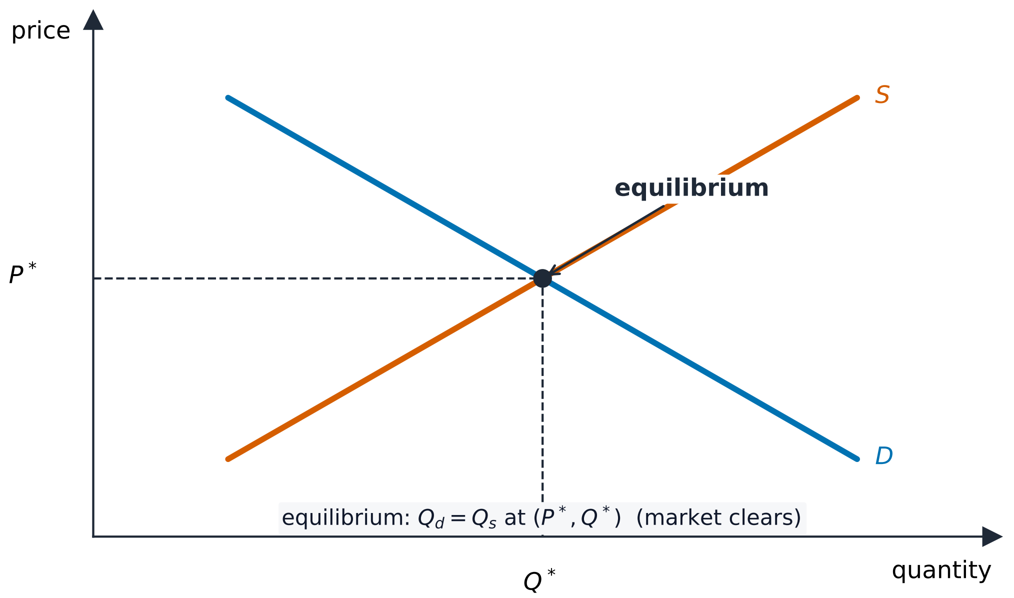
Build the skills to answer exam questions on the **interaction of demand and supply 需求与供给的互动** — **equilibrium 均衡**, **disequilibrium 非均衡** (excess demand/supply), and how **shifts** change the equilibrium.

You must be able to:

- draw and explain market equilibrium
- explain excess demand (shortage) and excess supply
- analyse how a shift in demand or supply changes price and quantity

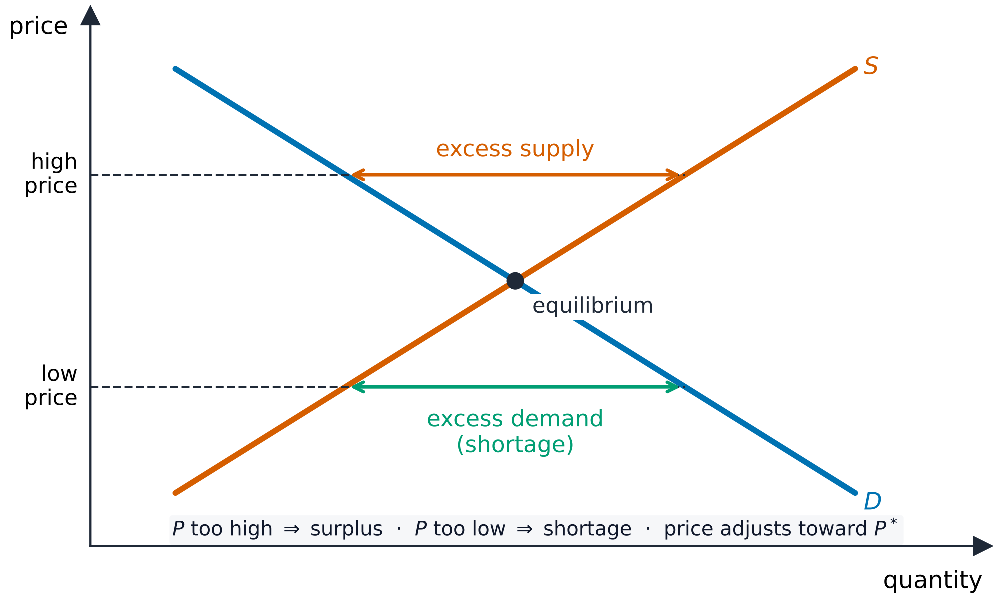
1 Worked examples

■ Market equilibrium



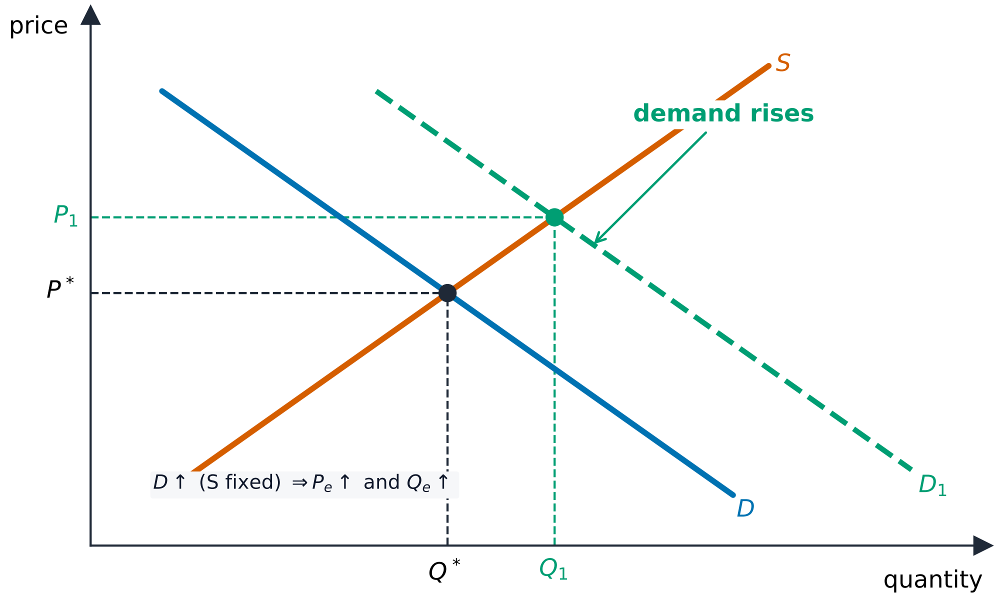
Equilibrium P^*, Q^*: quantity demanded = quantity supplied

- **Equilibrium** 均衡: where demand crosses supply — no pressure for price to change.
- **Too low a price** → **excess demand** 超额需求 (a shortage) → price pushed up.
- **Too high a price** → **excess supply** 超额供给 → price pushed down.



Disequilibrium: excess supply (above P^*) and excess demand (below P^*)

- **Shifts:** demand right → price ↑, quantity ↑; supply right → price ↓, quantity ↑.



A shift in demand or supply moves the equilibrium

Answer shapes: an **Explain** [**up to 8**] answer should use a labelled diagram (AO3); **Discuss** [**12**] adds a judgement (AO4).

2 Practice

2.1 Define the term *equilibrium price*. [2]

2.2 State what happens to price when there is **excess demand**. [1]

2.3 State the effect on equilibrium price and quantity of a rightward shift in supply. [2]

3 Exam-style questions

3.1 A price set **below** the equilibrium price will cause: [1]

- **A** excess supply, pushing price down
- **B** excess demand, pushing price up
- **C** the market to stay in equilibrium
- **D** the supply curve to shift left

3.2 Using a demand and supply diagram, explain how an increase in demand changes the equilibrium price and quantity. [8]

3.3 The price of coffee beans (an input) rises sharply. Discuss the likely effects on the market for coffee. [12]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the price at which the quantity demanded equals the quantity supplied, so there is no pressure for it to change (2 for a clear definition; 1 for a partial idea).

2.2 the price rises (2 for "rises, because buyers compete for the shortage"; 1 for "rises").

2.3 price falls and quantity rises (1 + 1).

3.1 B. Below equilibrium there is excess demand, which pushes the price up.

3.2 *[8]* AO1 1 + **AO3 diagram up to 4** (labelled axes, demand shifts right $D \to D_1$, new equilibrium) + AO2/AO3 up to 3 — higher demand creates excess demand at the old price → the price is bid up → as price rises, quantity supplied rises along the supply curve → a new equilibrium at a higher price and higher quantity.

3.3 *[12]* AO1/AO2/AO3 up to 8 (diagram: supply shifts left, price ↑, quantity ↓) + AO4 up to 4. **Analysis:** dearer beans raise production costs → supply of coffee shifts left → equilibrium price rises and quantity falls; how much depends on PED. **Evaluation:** if demand for coffee is inelastic, the price rises a lot but quantity falls little; producers of complements (e.g. milk) may lose; consumers may switch to substitutes. Judgement: the size of the effect depends on elasticities and whether the cost rise is temporary.

12 A government gives a subsidy to a producer of a product.

What will be the likely effect of this?

A a shift to the left in the demand curve and a rise in equilibrium quantity

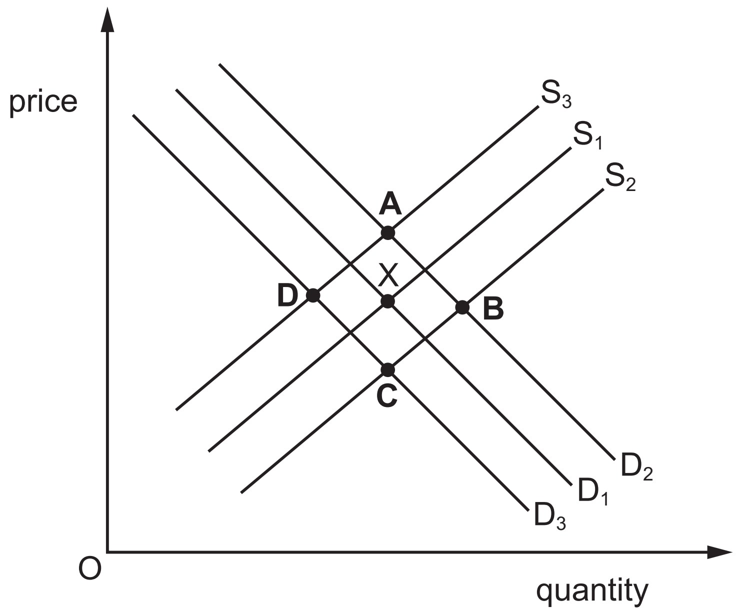
B a shift to the left in the supply curve and a rise in equilibrium quantity

C a shift to the right in the demand curve and a fall in equilibrium price

D a shift to the right in the supply curve and a fall in equilibrium price

12 The diagram shows the market for a demerit good. The initial equilibrium is at point X.

What will be the new equilibrium if the government imposes a unit tax on this demerit good and successfully informs consumers of its harmful effects?



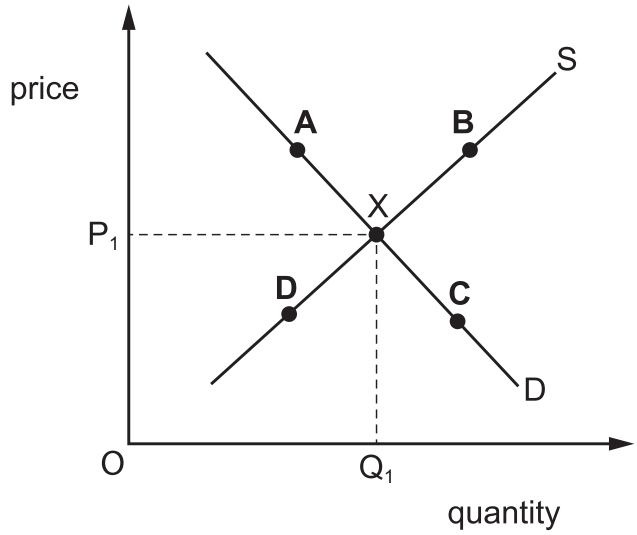
13 To improve the health of people, a government puts a tax on the sale of drinks that contain sugar.

What are the likely effects of this tax on **both** the prices of the drinks that contain sugar and the price of sugar?

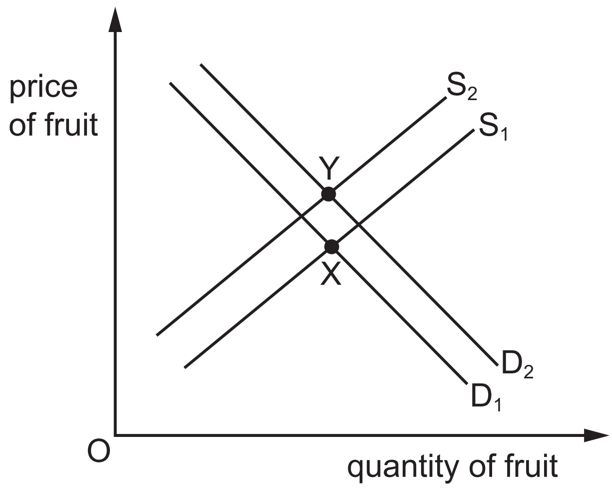
	prices of drinks	price of sugar
A	decrease	decrease
B	decrease	increase
C	increase	decrease
D	increase	increase

8 The diagram shows the demand curve and supply curve for broken rice that is considered to be an inferior good. The market is in equilibrium at point X with a price of P_1 and quantity of Q_1.

Which point is the new equilibrium if household incomes rise?



8 The diagram shows the market for fresh fruit in an economy. Fruit has a positive income elasticity of demand and is mainly imported. The original equilibrium is at X.



What is the most likely cause of the equilibrium point moving from X to Y?

A a fall in real income and a depreciation of the exchange rate

B a fall in real income and an appreciation of the exchange rate

C a rise in real income and a depreciation of the exchange rate

D a rise in real income and an appreciation of the exchange rate

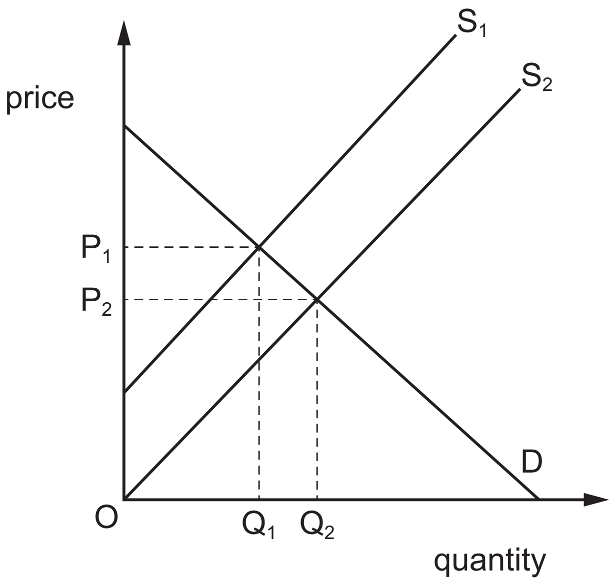
2 **(a)** In 2022 the supply of root ginger from Nigeria, Africa's biggest producer, fell by 20%. Market demand was expected to grow by more than 5%.

With the help of a demand and supply diagram, explain how the market equilibrium for root ginger in Nigeria is likely to change **and** consider how certain you are of the new market price. [8]

(b) Assess the ways in which producers of root ginger might be able to stabilise their incomes. [12]

OR

9 The diagram shows the demand for and supply of a product.



What could cause supply to shift from S_1 to S_2?

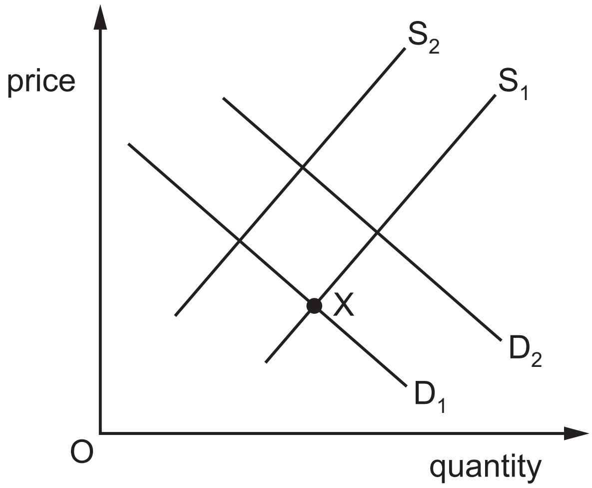
A a fall in the price of the product

B a fall in labour costs

C a rise in the price of the product

D a rise in labour costs

6 D_1 and S_1 are the initial demand and supply curves in the market for new cars with an equilibrium at X.



What will cause the demand curve to shift to D_2 and the supply curve to shift to S_2?

A a decrease in real incomes and a rise in the costs of new car production

B a decrease in the price of petrol and a subsidy on new car production

C an increase in the availability of loans for new car purchases and a specific tax on new cars

D an increase in the price of train travel and an increase in the number of car producers

A-Level Economics: **Specimen 1**

10 The demand for a good falls at the same time as its costs of production decrease.

What will be the combined effect of these changes on the price and on the quantity supplied of the good?

	price	quantity supplied
A	decrease	decrease
B	decrease	uncertain
C	uncertain	decrease
D	uncertain	uncertain

A-LEVEL ECONOMICS • EXERCISE SHEET

2.5 Consumer and producer surplus

Name: ____________ Class: ________ Date: __________ **Total: 21 marks**

KEY WORDS consumer surplus 消费者剩余 • producer surplus 生产者剩余 • consumer and producer surplus 消费者
• consumer 消费者 • producer 生产者

Objective

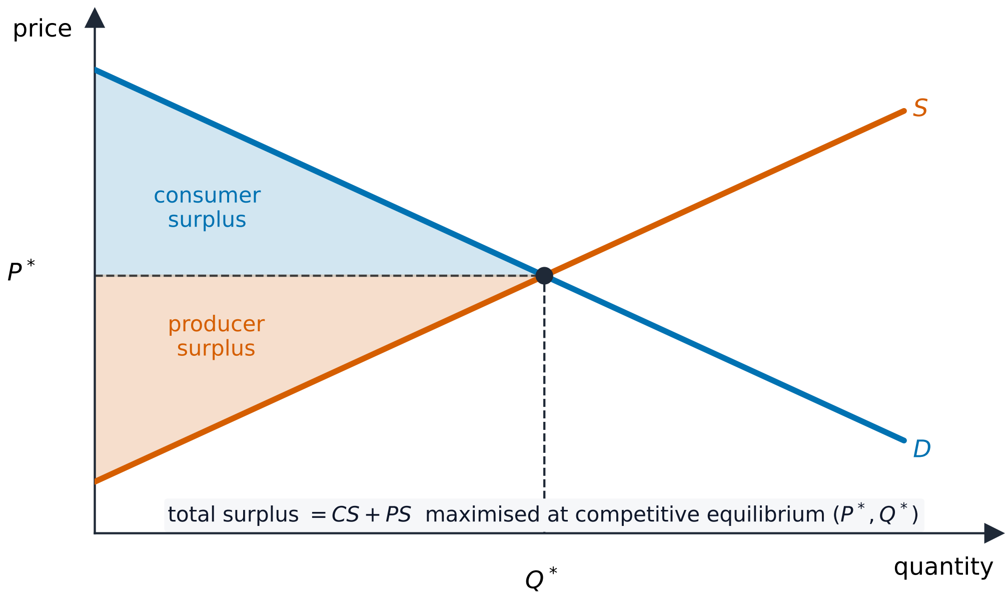
Build the skills to answer exam questions on **consumer and producer surplus** 消费者剩余与生产者剩余 — what each is, how to show them on a diagram, and how they change.

You must be able to:

- define and shade **consumer surplus** 消费者剩余 and **producer surplus** 生产者剩余
- explain how a price or curve change affects each surplus
- analyse surplus as a measure of welfare 福利

1 Worked examples

■ The two surpluses



Together they measure the total welfare 福利 from a market

- **Consumer surplus:** the gap between the most a buyer would pay and the price actually paid (area **below demand, above price**).
- **Producer surplus:** the gap between the price received and the lowest a seller would accept (area **above supply, below price**).
- A **higher price** raises producer surplus but lowers consumer surplus; a **rise in supply** lowers price → raises consumer surplus.

Answer shapes: an **Explain** [**up to 8**] answer should use a labelled diagram (AO3); **Discuss** [**12**] adds a judgement (AO4).

2 Practice

2.1 Define the term *consumer surplus*. [2]

2.2 State where **producer surplus** is shown on a demand and supply diagram. [1]

2.3 State the effect on consumer surplus of a fall in the market price. [1]

3 Exam-style questions

3.1 Consumer surplus is the area: [1]

- **A** above the demand curve and below the price
- **B** below the demand curve and above the price
- **C** above the supply curve and below the price
- **D** below the supply curve and above the price

3.2 Using a diagram, explain how an increase in supply affects consumer surplus. [8]

3.3 Discuss whether a rise in the market price always reduces total welfare. [8]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the difference between the most a consumer is willing to pay and the price actually paid (2 for a clear definition; 1 for a partial idea).

2.2 the area above the supply curve and below the price line (1).

2.3 consumer surplus rises (1).

3.1 B. Consumer surplus is below the demand curve and above the price.

3.2 *[8]* AO1 1 + **AO3 diagram up to 4** (demand and supply, supply shifts right, price falls) + AO2/AO3 up to 3 — a rise in supply lowers the equilibrium price and raises quantity → the area below demand and above the new lower price is larger → consumer surplus rises.

3.3 *[8]* AO1/AO2/AO3 up to 5 + AO4 up to 3. **Yes:** a higher price (curves fixed) cuts consumer surplus and quantity traded, lowering welfare. **But:** producer surplus rises, and if the price rise came from higher demand, total welfare can still rise as more is traded. Judgement: the effect on total welfare depends on *why* the price rose — a tax or restriction lowers welfare, but a demand-led rise need not.

2 **(a)** With the help of a diagram, explain the difference between producer surplus and consumer surplus **and** consider the extent to which producers always gain when the price of a product increases due to higher costs of production. [8]

(b) Assess the view that a business should be more concerned about the income elasticity of demand for its product than its cross elasticity of demand when incomes are falling. [12]

OR

11 A government imposes a specific indirect tax on a product.

When will the tax cause the greatest reduction in consumer surplus for the buyers of the product?

A When the product has price elastic demand and price elastic supply.

B When the product has price elastic demand and price inelastic supply.

C When the product has price inelastic demand and price elastic supply.

D When the product has price inelastic demand and price inelastic supply.

12 The table shows the maximum amount three students would each be willing to pay for a taxi to take them home from a nightclub.

	$
Jane	10.00
Sara	8.00
Yasmin	6.00

The fare for the taxi is $12. Assume they share the taxi fare as shown in the table below.

Which row shows how much they each should pay so that they each obtain the same consumer surplus?

	Jane $	Sara $	Yasmin $
A	2.00	4.00	6.00
B	4.00	4.00	4.00
C	5.00	4.00	3.00
D	6.00	4.00	2.00