

Price changes

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Last checked 1 October 2026

Read first: [Demand](#), [Supply](#), [Price determination](#)

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What you need to know

By the end of this topic you should be able to:

1. **Explain the causes of price changes:** a price changes when **market conditions** change, that is, when something other than the product's own price makes demand or supply shift. You should link each cause to the right curve (demand or supply) and the right direction (increase or decrease).
2. **Explain the consequences of price changes:** use demand and supply diagrams to show how a change in market conditions moves the market to a new **equilibrium price** and a new **equilibrium quantity** (sales), and say what happens to each.

The whole topic is the same for every candidate (0455 has no Core/Extended split). It puts together the Demand, Supply and Price determination notes: the causes of shifts come from there, and here you use them to explain why prices change.

Understand it

Why prices change

A market settles at the price where the quantity demanded equals the quantity supplied (see Price determination). It stays there until **market conditions** change. A change in conditions shifts the demand curve or the supply curve, and at the old price there is now a shortage or a surplus. The price then moves until the market clears again.

So every question in this topic is the same three-step story:

1. **What changed?** Does it affect buyers (demand) or sellers (supply)?
2. **Which way does the curve shift?** Increase = shift to the right; decrease = shift to the left.
3. **What happens at the new equilibrium?** Read the new price and quantity where the new curve crosses the other curve.

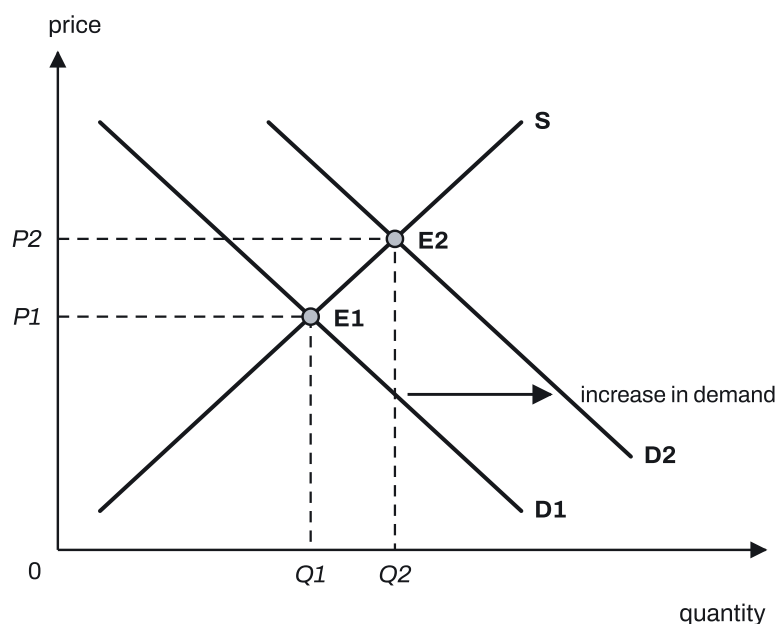
A change in the product's **own price** never shifts its own demand or supply curve; it is a movement along them. That is the most common confusion in this topic.

Changing conditions of demand

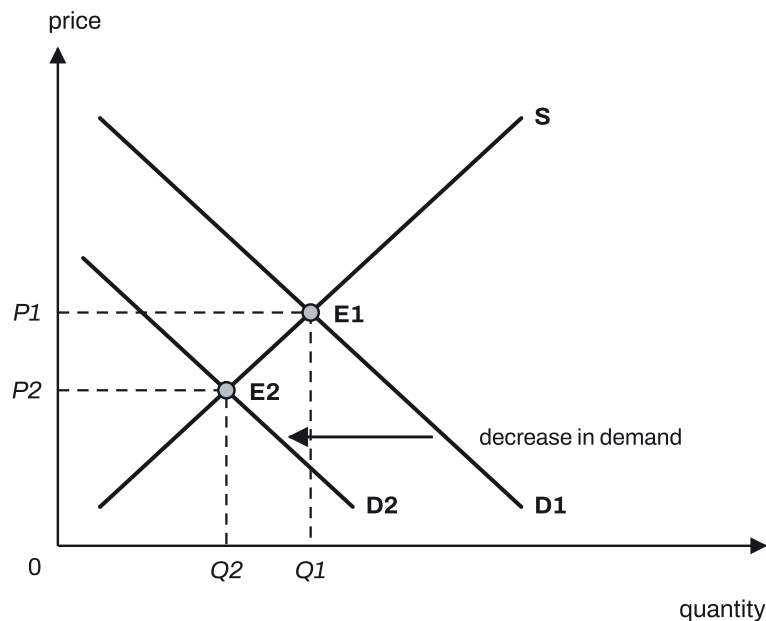
Demand **increases** (shifts right) when:

- **incomes rise** (for a normal good, such as foreign holidays, clothing or perfume);
- the **price of a substitute rises** (dearer tea → more demand for coffee), or the **price of a complement falls** (cheaper ski equipment → more demand for ski holidays);
- **tastes change** in the product's favour: good health publicity, successful **advertising**, a better **reputation** or **higher quality**;
- the **population grows**, or the age mix changes towards the buyers of the product (a rising birth rate raises demand for toys);
- borrowing gets cheaper (**lower interest rates**), which raises demand for products bought on credit, such as houses and cars; more consumer **confidence** has the same effect.

Demand **decreases** (shifts left) for the opposite reasons: falling incomes, a cheaper substitute (cheaper rail travel → less demand for car transport), a dearer complement, a health report against the product (sugar, cigarettes), a falling population.



In the diagram, demand rises from D1 to D2. At the old price \$3 there are now 40 more units demanded than supplied (a **shortage** of 40), so the price is bid up. Supply **extends** along S until the new equilibrium E2: price up from \$3 to \$4, quantity up from 60 to 80. Sellers' revenue rises from $3 \times 60 = 180$ dollars to $4 \times 80 = 320$ dollars.



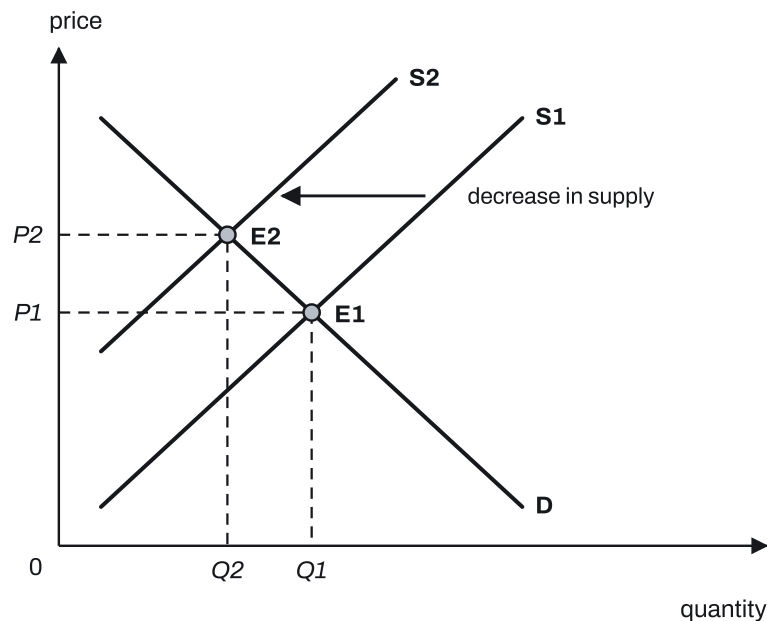
When demand falls from D_1 to D_2 , there is a **surplus** of 40 at the old price \$3. Sellers cut the price and supply **contracts** until E_2 : price down from \$3 to \$2, quantity down from 60 to 40.

Changing conditions of supply

Supply **decreases** (shifts left) when:

- **costs of production rise**: higher wages (a higher minimum wage), dearer raw materials or fuel (cocoa for chocolate, wood for furniture, petrol for road transport), higher rents or land prices;
- **natural disasters and bad weather** destroy crops or factories (drought, floods, storms, a poor harvest);
- the government adds an **indirect tax**, removes a **subsidy**, or brings in stricter **regulations** (for example planning rules on house building);
- there are **fewer firms** or workers in the industry (sick staff, a shortage of drivers).

Supply **increases** (shifts right) for the opposite reasons: better **technology** or new machines that cut costs, cheaper raw materials, good weather and a good harvest, a **subsidy** or a cut in tax, more firms, the discovery of **new deposits** of a mineral (gold, oil, potash).



When supply falls from S_1 to S_2 , there is a **shortage** of 40 at the old price \$3. The price rises and demand **contracts** until E_2 : price up from \$3 to \$4, quantity down from 60 to 40. When supply increases instead (say by 40 at every price), there is a surplus at \$3 and the price falls to \$2 while the quantity rises to 80.

The four basic results

Change in conditions	Curve	Equilibrium price	Equilibrium quantity
Demand increases	D shifts right	rises	rises
Demand decreases	D shifts left	falls	falls
Supply increases	S shifts right	falls	rises
Supply decreases	S shifts left	rises	falls

Two quick tests follow from the table, and they work backwards too:

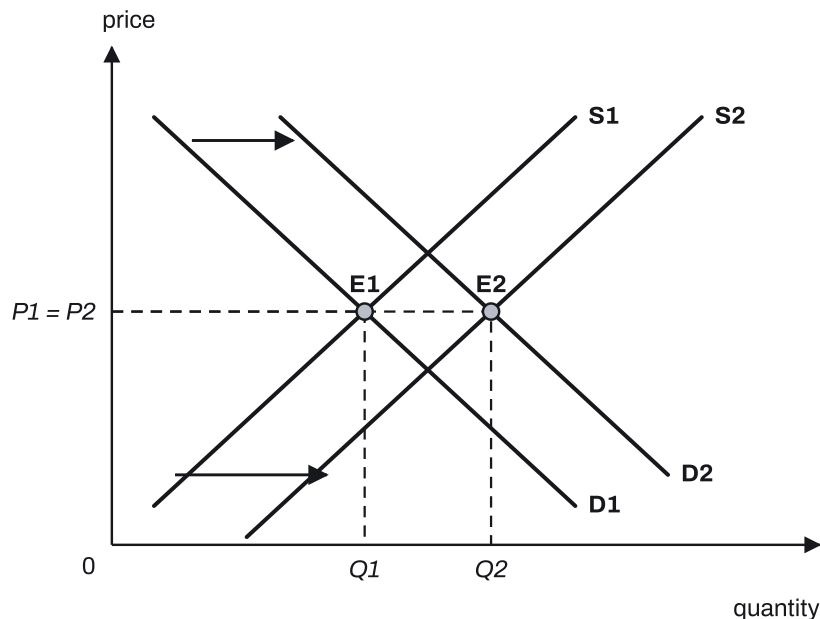
- If price and quantity **move the same way** (both up or both down), **demand** shifted.
- If price and quantity **move in opposite directions**, **supply** shifted.

For example, if both the price and the output of coal fell over several years, demand must have fallen (such as users switching to renewable energy). If the price rose while the quantity traded fell, supply fell (higher costs, bad weather).

When demand and supply both change

Often two things happen at once: good weather raises both the demand for ice cream and the supply of fruit; a boom raises the demand for timber while a driver shortage cuts its supply. Work out each shift on its own, then combine them. One of the two results is always **certain** and the other **depends on which shift is bigger**:

Changes	Price	Quantity
Demand up, supply up	uncertain	rises
Demand down, supply down	uncertain	falls
Demand up, supply down	rises	uncertain
Demand down, supply up	falls	uncertain



In the diagram both curves shift right by 30 units at every price, so the price stays at \$3 and the quantity rises from 60 to 90. If demand had shifted further than supply, the price would have risen; if supply had shifted further, it would have fallen. The quantity rises in every case, because both shifts push it up.

Consequences beyond the market

A price change in one market changes conditions in **related markets**:

- **Inputs:** a dearer raw material or fuel raises the costs of the firms that use it, so the supply of their product falls and its price rises (dearer petrol → higher costs of road transport; dearer wood → dearer furniture).
- **Substitutes:** a higher price of milk makes some buyers switch to soft drinks, so demand for soft drinks rises (their price, sales and revenue rise).
- **Complements:** a higher price of petrol reduces demand for large cars.
- **Linked supply:** when many people buy new cars, more used cars come onto the market, so the supply of used cars rises.

For the sellers in the market itself, a higher price means more revenue per unit, but they sell fewer units if demand has fallen or supply has been cut, so whether their total revenue rises depends on how much the quantity changes.

A new equilibrium is reached only if the price is **free to move** and producers react. If other suppliers do not expand output after a drought, the price of wheat can stay high for a long time; if the government fixes the price, the shortage or surplus remains.

Key facts and formulas

This topic has no formula list in the exam. "Learn it" means you must remember it.

Fact	Status
Prices change when conditions of demand or supply change (a shift), not because of the product's own price	Learn it
Increase = shift right; decrease = shift left (for both demand and supply)	Learn it
D right: price and quantity rise. D left: both fall	Learn it
S right: price falls, quantity rises. S left: price rises, quantity falls	Learn it
Price and quantity move together → demand shifted; move opposite ways → supply shifted	Learn it
Both curves shift: one result is certain, the other depends on the size of the shifts (see the table above)	Learn it
Revenue (consumers' spending) = price × quantity sold, at the equilibrium	Learn it
A diagram shows: axes price and quantity, D and S labelled, the new curve (D2 or S2), old and new equilibria P1 Q1 and P2 Q2 (or E1 and E2)	Learn it

How to do it

In the questions we have tagged for this topic (44 questions, 2021–2025), the parts about this topic are these. Each question has one part on this topic: the 20- and 30-mark Paper 2 questions have other parts on other topics, so the counts add to 44.

Question type	Question parts
Multiple choice (concept)	25
Analyse (6 marks)	10
Draw a diagram (4 marks)	4
Analyse, using a diagram (5 marks)	4

Question type	Question parts
Multiple choice (calculation)	1

No Define (2) or Discuss (8) parts on this topic have been tagged; section 2 ends with a plan in case one is set.

1. Multiple choice (concept) (25 question parts)

1. **Name the change** in the stem and decide: does it affect **buyers** (demand) or **sellers** (supply)?
2. **Decide the direction**: increase (right) or decrease (left).
3. **Read the result** from the four-results table, or find the new crossing point on the diagram given. Picture the new curve drawn through the diagram before you look at the options.

Variations you will meet:

- **Identify the cause** (9 parts). You are given a result (a shift on a diagram, a higher price, "higher price and lower quantity") and pick the cause. Work backwards: price and quantity both up → demand rose (higher incomes, dearer substitute, good publicity); price up, quantity down → supply fell (dearer raw materials, bad weather). Options with the product's own price, a cheaper substitute or cheaper raw materials go the wrong way. Harder ones: a raw material's price falls while the price of products made from it rises (excess supply of the material, plus more advertising of the products); a price stays high because other suppliers did **not** raise output; the general principle that prices in a free market change because demand and supply conditions change.
- **Both curves shift** (7 parts). Shift each curve separately, then use the both-shifts table. Good weather raising demand **and** supply: quantity rises, price uncertain. A boom plus a supply shortage (demand up, supply down): price rises, quantity uncertain. When a diagram with several curves is given, the answer is the crossing of the **new** demand curve with the **new** supply curve; check which way is "right" on the quantity axis.
- **One change, new equilibrium** (5 parts). Cost-cutting technology or a new mineral deposit → S right (lower price, higher quantity); a crop failure → S left (shortage at the old price, so the price rises); a cheaper substitute → D left, so the equilibrium moves down and to the left of E.
- **A related market** (3 parts). Decide how the first market's change affects the second: a dearer input raises users' costs; a cheap petrol offer shifts petrol supply right **and** raises demand for the store's goods; more new-car buying brings more used cars onto the market (supply of used cars right).
- **Reading price and output data** (1 part). Compare the years in the table: find the year with the highest output and see whether it also had the highest price (together → demand changes were at work).

2. Analyse (6 marks) (10 question parts)

Two kinds, both marked 1 mark per point or step in a chain, up to 6.

a) Analyse, using a demand and supply diagram, the effect of a change (6 parts, 2022). Examples: an increase in population on toothpaste, a dearer raw material on furniture, higher incomes on luxury perfume, better quality on jewellery, health awareness on fruit, greener spending on solar energy.

1. **Diagram** (up to 4): axes **price** and **quantity** (1); original D and S labelled (1); the correct curve shifted the correct way, labelled D2 or S2 (1); old and new equilibria shown with P1, Q1, P2, Q2 or E1, E2 (1).
2. **Words** (the rest): link the cause to the shift in **this** market ("wood is a raw material for furniture, so the cost of making furniture rises (1), so the supply of furniture decreases (1)"), then say what happens to **price and quantity** ("price rises from P1 to P2 and the quantity traded falls from Q1 to Q2") (1). Describing the diagram alone ("price goes from P1 to P2") is not enough; give the reason.

b) Analyse the causes of a price rise (2 parts, for example house prices or ski holidays). No diagram is needed, but every cause must be linked to demand or supply, or the answer is capped at 4.

1. **Demand side**: two or three causes, each as cause → demand increases → price rises. (Higher incomes; lower interest rates, so more borrowing to buy; a growing population; more confidence; advertising or a better reputation; a dearer substitute or a cheaper complement.)
2. **Supply side**: two or three causes, each as cause → supply decreases (or costs rise) → price rises. (Higher wages, material or land costs passed on as higher prices; fewer subsidies; higher taxes; stricter regulations; land used for other things; natural disasters.)
3. Aim for six linked steps across both sides; a seventh gives a safety margin.

Other variants. *Effects on revenue in related markets* (a dearer product on its own sellers and on sellers of a substitute): the substitute's demand rises, so its price, sales and revenue rise (2–3 marks); the product's own sellers get a higher price but sell less, and whether revenue rises depends on how much buyers cut back (if they cut back only a little, it rises). *Effects of a fall in a country's exports of services*: fewer foreign buyers → demand for those services falls → their price and the quantity sold fall → producers earn less and may cut jobs.

3. Draw a diagram (4 marks) (4 question parts)

"Draw a demand and supply diagram to show the effect of..." (a health report on sugar, a fall in population on furniture, new gold deposits on gold, cheaper rail on car transport).

1. Decide which curve and which direction, from the context in the source material.
2. Draw it with the four marking points: axes **price** and **quantity** (1); D and S labelled (1); new curve labelled and shifted the right way (1); P1/Q1 and P2/Q2 marked with dashed lines, or E1 and E2 (1).
3. Don't write an explanation: "Draw" only rewards the diagram, and the examiners note that written answers here waste time.
4. If the context affects both sides (a fall in population means fewer buyers **and** fewer workers), shifting just the curve most clearly affected is enough; showing both, correctly, is also accepted.

4. Analyse, using a diagram (5 marks) (4 question parts)

"Analyse, using a demand and supply diagram, how... would affect the market for..." (a population increase on clothing, higher wage costs on shoes, a drought on coffee, a rising birth rate on toys). It is the 4-mark diagram plus **one or two sentences** of analysis: link the cause to the shift and state the result. For example: "Higher

wages raise the cost of producing shoes, so supply falls and the price of shoes rises." The written mark needs the **reason** (the higher cost), not just "price rises".

5. Multiple choice (calculation) (1 question part)

A price/quantity schedule changes by a percentage (or a fixed amount) at every price.

1. Write the **new** column: +50% means $\times 1.5$, halving means $\times 0.5$, "+30 at every price" means add 30.
2. Find the row where the new quantities are equal: that is the new equilibrium price and quantity.
3. If asked, compare revenue before and after (price $\times$ quantity at each equilibrium).

If a Define (2) part is set ("what is meant by a change in market conditions"): a change in something other than the product's own price (1) that shifts its demand or supply curve (1). **If a Discuss (8) part is set** (for example "whether the price of oil will rise next year"): reasons it might (causes of more demand or less supply, each linked to a price rise), reasons it might not (causes of less demand or more supply), then a judgement on which effect is likely to be bigger and why.

Worked examples

Example 1

A market reaches a new equilibrium with a higher price and a lower quantity traded. What could have caused this?

- **A** a rise in consumers' incomes
- **B** an improvement in technology used by producers
- **C** a rise in the wages paid to workers in the industry
- **D** a fall in the price of a complement

[1]

Price and quantity moved in opposite directions, so supply shifted, and since price rose, supply decreased. Higher wages raise costs and cut supply. A and D increase demand (price and quantity both rise); B increases supply (price falls). The answer is **C**. (1)

Example 2

The table shows the weekly market for a product.

Price (\$)	Quantity demanded	Quantity supplied
2	90	30
4	75	45

Price (\$)	Quantity demanded	Quantity supplied
6	60	60
8	45	75
10	30	90

A successful advertising campaign increases the quantity demanded by 30 at every price. What are the new equilibrium price and quantity?

- **A** \$6 and 90
- **B** \$8 and 75
- **C** \$8 and 45
- **D** \$10 and 60

[1]

The first equilibrium is \$6 and 60. The new demand column is 120, 105, 90, 75, 60. At \$8 the new quantity demanded (75) equals the quantity supplied (75), so the answer is **B**. (1) (A is the new quantity demanded at the old price: there would be a shortage of $90 - 60 = 30$ there, which pushes the price up by \$2 and the quantity up by 15.)

Example 3

Analyse, using a demand and supply diagram, how a rise in the price of cocoa beans would affect the market for chocolate. [6]

Diagram (as in the decrease-in-supply diagram above): axes labelled price and quantity (1); demand D and supply S1 labelled, crossing at E1 (1); supply shifted left to S2 (1); P1, Q1 and the new P2, Q2 marked, with P2 above P1 and Q2 below Q1 (1).

Analysis: Cocoa beans are the main raw material in chocolate, so a higher cocoa price raises the cost of producing chocolate (1). Firms are willing to supply less chocolate at each price, so supply decreases and the curve shifts left (1). At the old price there is now a shortage, so the price of chocolate rises from P1 to P2 and the quantity bought falls from Q1 to Q2 as demand contracts (1).

The diagram earns 4 and the analysis offers 3 more marks for the 2 remaining, so the answer reaches 6.

Example 4

Analyse the possible causes of a rise in the price of concert tickets. [6]

Demand for concert tickets may increase because consumers' incomes rise (1), so more people can afford to go out, and the higher demand pushes the price up (1). A popular artist's advertising on social media may also raise demand (1), so more fans compete for a fixed number of seats and the price rises (1). On the supply side,

the cost of putting on concerts may rise, for example higher wages for stage crews or higher rents for venues (1); promoters pass the higher costs on as higher ticket prices (1). A new tax on entertainment would also reduce supply (1), raising the price.

Seven linked points for 6 marks. Each cause is tied to demand or supply and to the price; a list of causes alone would be capped at 4.

Common mistakes

- **Shifting the wrong curve.** Every year some candidates shift supply for a demand change (population, health awareness, incomes) or demand for a supply change (a raw material, a drought, new deposits). Ask "does this affect buyers or sellers?" before drawing.
- **Shifting the curve the wrong way.** An increase is always to the **right** and a decrease to the **left**, for supply as well as demand. To check a supply shift, pick any price: after a decrease, the new supply curve must give a **smaller** quantity at that price.
- **Mixing up the labels.** Examiners regularly see the demand and supply curves labelled the wrong way round, or price and quantity swapped on the axes. Demand slopes down, supply slopes up; price goes on the vertical axis.
- **Leaving out the new equilibrium.** A correct shift with no P2 and Q2 (or E2) loses a mark; this was the most common error in the June 2025 report.
- **Treating the product's own price as a cause of a shift.** "The price rises, so demand shifts right" is wrong: a change in the product's own price is a movement along the curve. A shift needs a change in conditions.
- **Writing about the wrong market.** When a raw material gets dearer, analyse the market named in the question (furniture, not wood); when population rises, relate it to toothpaste, not demand in general.
- **Describing the diagram instead of explaining it.** "Price goes from P1 to P2" earns nothing extra; give the reason ("because higher quality makes more people want to buy it").
- **Lists without links.** In "analyse the causes of higher prices" answers, naming causes without saying how they change demand or supply is capped at 4.
- **Assuming both results are certain when both curves shift.** One is always uncertain; don't pick "price must fall" when both demand and supply increase.

How to get the marks

- **Multiple choice is 1 mark with no penalty for a wrong answer.** For shift questions, sketch the diagram in the margin and draw the new curve before you read the options.
- **Draw** (4 marks): only the diagram is marked, so spend your time on labels: price and quantity axes, D and S, the new curve (D2 or S2) with an arrow, dashed lines to P1, Q1, P2 and Q2.
- **Analyse, using a diagram** (5 or 6 marks): the same diagram for 4, then written analysis for the rest: the cause → the shift in **this** market → the change in price and quantity. Refer to the source material ("the drought in Nicaragua destroys coffee crops").

- **Analyse** causes (6 marks): chains, not lists. Each cause needs a link to demand or supply and then to price. Cover both sides for plenty of points.
- **Explain** (if set): an identified point (1) plus its development (1).
- **Discuss** (if set): both sides developed, and a judgement that says what the outcome depends on.
- **Use the terms precisely**: increase and decrease in demand or supply (shifts); extension and contraction (movements along a curve); equilibrium price, equilibrium quantity, sales.

Quick check

1. A new machine cuts the cost of baking bread at the same time as a report claims that bread is unhealthy. What happens in the market for bread?
 - **A** The price falls; the effect on quantity is uncertain.
 - **B** The price rises; the quantity falls.
 - **C** The price is uncertain; the quantity rises.
 - **D** The price and the quantity both fall.
2. The table shows a monthly market. A disease halves the quantity supplied at every price. Find the old and new equilibrium price and quantity, and the change in consumers' total spending.

Price (\$)	1	2	3	4	5
Quantity demanded	100	80	60	40	20
Quantity supplied	20	40	60	80	100

3. The price of petrol rises sharply. State and explain what is likely to happen to the price and quantity in the markets for (a) large cars and (b) bus travel.
4. Draw a demand and supply diagram to show the effect of a rise in incomes on the market for foreign holidays. **[4]**

Answers

1. **A.** Lower costs increase supply (S right, pushing the price down and the quantity up); the health report decreases demand (D left, pushing the price and quantity down). The price falls for certain; the quantity depends on which shift is bigger. (1)
2. Old equilibrium: \$3 and 60, spending $3 \times 60 = 180$ dollars. The new supply column is 10, 20, 30, 40, 50, so at \$3 there is a shortage of $60 - 30 = 30$ and the price rises. The new equilibrium is \$4 and 40 (40 demanded, 40 supplied). Spending is $4 \times 40 = 160$ dollars, a fall of \$20.
3. (a) Large cars use a lot of petrol, a complement, so running them costs more and demand for large cars decreases: the price and quantity sold both fall. (b) Bus travel is a substitute for driving, so demand for it increases: the price and number of journeys both rise (the bus companies' fuel costs rise too, which would cut supply and push the price up further).
4. Axes labelled price and quantity (1); original demand D1 and supply S labelled (1); demand shifted right to D2, because foreign holidays are a normal good and higher incomes let more people afford them (1); P1, Q1 at the first crossing and the higher P2, Q2 at the new crossing (1). It looks like the increase-in-demand diagram above.

Past questions to try

- 0455/13/O/N/24 Q4: working back from a falling raw-material price and rising product prices.
- 0455/12/O/N/24 Q7: which pair of shifts moves the equilibrium to a given point.
- 0455/13/O/N/25 Q6: a new equilibrium after supply rises by a percentage at every price.
- 0455/12/M/J/24 Q6: one price cut shown on diagrams for two related markets.