Past-paper walk-through

Price elasticity, income elasticity and cross elasticity of demand ▪ 2.2

eXercise

Questions in this set

- 9708/11 N25 Q7 ▪ 1 mark
- 9708/11 N25 Q8 ▪ 1 mark
- 9708/11 N25 Q9 ▪ 1 mark
- 9708/12 N25 Q8 ▪ 1 mark
- 9708/12 N25 Q9 ▪ 1 mark
- 9708/13 N25 Q6 ▪ 1 mark
- 9708/13 N25 Q9 ▪ 1 mark
- 9708/21 N25 Q2 ▪ 20 marks
- 9708/1 23 Q7 ▪ 1 mark

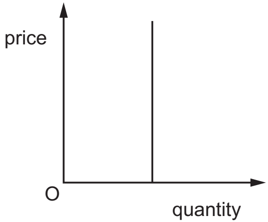
Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- // separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = "or words to that effect" – the wording need not match.

Question 7

9708/11 N25 ▪ Q7 ▪ 1 mark

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?

Question 7

A a perfectly elastic demand curve

B a perfectly inelastic supply curve

C a relatively elastic supply curve

D a unitary elastic demand curve

Solution 7

Answer: **B**

Why

- Read the slope: an upward-sloping price–quantity curve is a supply curve.
- A downward-sloping one is a demand curve.
- So describe the relationship the slope actually shows, rather than assuming which curve it is.

Question 8

9708/11 N25 ▪ Q8 ▪ 1 mark

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.

Solution 8

Answer: **A**

Why

- A *negative* income elasticity means quantity demanded moves opposite to income.
- So when income rises, less of the good is bought – it is an inferior good.
- The value 0.2 being less than one also means the response is weak.

Question 9

9708/11 N25 ▪ Q9 ▪ 1 mark

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

Question 9

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.

Solution 9

Answer: **D**

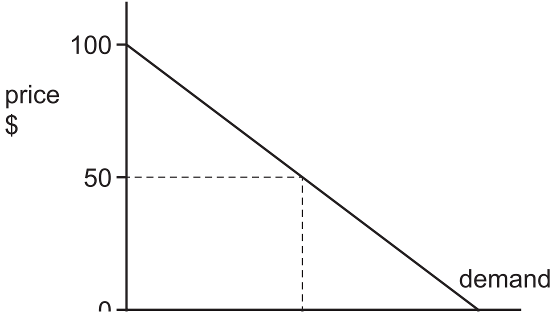
Why

- Total expenditure is price $\times$ quantity, so quantity $=$ expenditure $\div$ price.
- Work out the quantity in each period from those two columns.
- Then compare how expenditure moved with price to judge the elasticity.

Question 8

9708/12 N25 ▪ Q8 ▪ 1 mark

8 The diagram shows the demand curve for a product.



Question 8

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

Solution 8

Answer: **B**

Why

- On a straight-line demand curve, elasticity falls steadily as you move down it.
- It is unit elastic exactly at the *midpoint* of the curve.
- So take half the price intercept – that is where total revenue is at its maximum.

Question 9

9708/12 N25 ▪ Q9 ▪ 1 mark

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.

Solution 9

Answer: **A**

Why

- A *negative* income elasticity means demand falls as income rises.
- That is the definition of an inferior good.
- The value -0.36 also being small in size means the response is weak, but the sign is what classifies it.

Question 6

9708/13 N25 ▪ Q6 ▪ 1 mark

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

Solution 6

Answer: **D**

Why

- Consumption by one person not reducing the amount available to others is non-rivalry.
- Combined with government provision, that points to a public good.
- A complementary or substitute good is about relationships between goods, not about rivalry.

Question 9

9708/13 N25 ▪ Q9 ▪ 1 mark

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

Solution 9

Answer: **C**

Why

- A negative income elasticity means the good is inferior.
- A negative cross elasticity means the two goods are complements.
- So X is an inferior good and Y is a complement of it.

Question 2

9708/21 N25 ▪ Q2 ▪ 20 marks

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

(a) (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] **[8]**

(b) (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] **[12]**

Solution 2

(a) Mark scheme

- 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.
- Follow the point-based marking guidance at the top of this mark scheme and
- award:
- up to 3 marks for AO1 Knowledge and understanding, up to 3 marks for AO2
- Analysis, up to 2 marks for AO3 Evaluation.

Solution 2

- AO1 Knowledge and understanding (max 3 marks)
- ▪
- A knowledge and understanding of the formula for calculating price
- elasticity of demand: percentage change in the quantity demanded of a
- product divided by percentage change in the price of the product. 1
- ▪
- If the PED value is greater than one, the demand is price elastic, which
- means that percentage change in demand is greater than percentage
- change in price. 1
- ▪

Solution 2

- if the PED value is between zero and one, the demand is price inelastic,
- which means that percentage change in demand is less than percentage
- change in price. 1
- AO2 Analysis (max 3 marks)
- An analysis of the importance of time in determining PED:
-
- Demand for a product is likely to be more inelastic in the short run than in
- the long run. 1
-
- In the long run, consumers have more time to think about possible

Solution 2

- alternatives to a product. 1
- ▪
- Habit is more likely to influence the short-run pattern of consumption,
- making demand less likely to be affected by price changes. 1
- AO3 Evaluation (max 2 marks)
- Offers a valid judgement on the importance of time in determining whether
- demand for the product was likely to be relatively price elastic or relatively
- price inelastic (1) to reach a conclusion. 1
- 8
- AO1 Knowledge and understanding

Solution 2

- 3
- AO2 Analysis
- 3
- AO3 Evaluation
- 2
- 9708/21
- October/November
- 2025

Solution 2

(b) Mark scheme

- 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.
- Use Table A: AO1 Knowledge and understanding and AO2 Analysis and Table
- B: AO3 Evaluation to mark candidate responses to this question.
- AO1 and AO2 out of 8 marks. AO3 out of 4 marks.
- Indicative content
- Responses may include:

Solution 2

- AO1 Knowledge and understanding and AO2 Analysis
- ▪
- A knowledge and understanding and analysis of income elasticity of
- demand (YED), such as in relation to whether a product is a normal
- good, where YED will be positive, or an inferior good, where YED will be
- negative and an analysis of the importance of it to a firm, i.e. the extent of
- its importance.
- ▪
- A knowledge and understanding and analysis of cross elasticity of
- demand (XED), such as in relation to whether two goods are substitutes,

Solution 2

- where XED will be positive, or complements, where XED will be negative
- and an analysis of the importance of it to a firm, i.e. the extent of its
- importance
- (Up to 8 marks)
- Level 1 responses will be assertive and lacking in explanations/mainly
- descriptive and/or mainly lacking in relevance to the question.
- Level 2 responses may contain some inaccuracies and will be one-sided.
- Analysis will be explained at least in part and will be largely relevant to the
- question.
- Level 3 responses will consider alternative policies/concepts etc. and will be

Solution 2

- balanced. Explanations of points raised will be offered and will be accurate
- and relevant to the question.
- AO3 Evaluation
- Evaluation of whether YED or XED is likely to be more important for a firm
- producing a product to reach a conclusion.
- Accept all valid responses.
- A one-sided response cannot gain any marks for evaluation.
- (Up to 4 marks)
- 12
- 9708/21

Solution 2

- October/November
- 2025
- AO1 Knowledge and understanding and AO2 Analysis
- 8
- AO3 Evaluation
- 4
- 9708/21
- October/November
- 2025
- OR

Question 7

9708/1 23 ▪ Q7 ▪ 1 mark

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?

Question 7

A perfectly elastic

B perfectly inelastic

C relatively elastic

D relatively inelastic

Solution 7

Answer: **B**