Past-paper walk-through

Price elasticity of demand (PED) ▪ 2.6

eXercise

Questions in this set

- 0455/11 N25 Q7 ▪ 1 mark
- 0455/11 J25 Q7 ▪ 1 mark
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Question 7

0455/11 N25 ▪ Q7 ▪ 1 mark

7 The price elasticity of demand (PED) of a good is –1.

What will happen to both demand and total revenue as price increases?

A demand will fall and total revenue will not change

B demand will fall and total revenue will rise

C demand will rise and total revenue will not change

D demand will rise and total revenue will rise

Solution 7

Answer: **A**

Why

- A PED of exactly -1 is unit elastic: quantity changes in the same proportion as price.
- So raising the price reduces demand by the same percentage.
- The two effects cancel exactly, so total revenue is unchanged.

Question 7

0455/11 J25 ▪ Q7 ▪ 1 mark

7 The table shows the quantity demanded at different prices.

price $	quantity demanded
6	3
5	4
4	5
3	7

Question 7

For which fall in price is the demand price-inelastic?

A from \$6 to \$5

B from \$5 to \$4

C from \$4 to \$3

D from \$3 to \$2

Solution 7

Answer: **D**

Why

- Elasticity compares the *percentage* change in quantity with the percentage change in price.
- So work out both percentages for each successive price fall.
- Demand is inelastic where the quantity percentage is the smaller of the two.

Question 7

0455/13 J25 ▪ Q7 ▪ 1 mark

7 A German car producer estimates the price elasticity of demand (PED) for its cars is –2.0.

What can be concluded from this information?

A its cars are price elastic

B its cars are price inelastic

C its cars are unitary elastic

D its cars take time to produce

Solution 7

Answer: **A**

Why

- A PED of -2.0 is greater than one in size, so demand is price elastic.
- That means quantity responds more than proportionately to a price change.
- So cutting the price would raise total revenue – the cars have close substitutes.

Question 7

0455/12 M25 ▪ Q7 ▪ 1 mark

7 The price elasticity of demand for smartphones is believed to be –2.0. A manufacturer decides to cut prices by 10%.

What will be the effect of this change in price?

A demand will fall by 20%

B demand will rise by 5%

C quantity supplied will remain unchanged

D revenue will increase

Solution 7

Answer: **D**

Why

- A PED of -2.0 means demand is elastic: quantity responds more than proportionately.
- A 10% price cut therefore raises quantity demanded by 20%.
- Quantity rises by more than price falls, so total revenue increases.

Question 28

0455/12 M25 ▪ Q28 ▪ 1 mark

28 The US puts a 25% tariff on Chinese steel to protect jobs in the US steel industry.

Under which condition would this policy be most effective?

A The price elasticity of demand for Chinese steel is –2.5.

B The price elasticity of demand for Chinese steel is –0.5.

C The price elasticity of supply for Chinese steel is 2.5.

D The price elasticity of supply for Chinese steel is zero.

Solution 28

Answer: **A**

Why

- A tariff raises the price of imports so buyers switch to domestic steel.
- It works best when demand responds strongly to that price rise.
- So the policy is most effective where the imported and domestic steel are close substitutes.

Question 8

0455/12 N24 ▪ Q8 ▪ 1 mark

8 When the price of shirts rises from $8 to $10, the demand for shirts falls from 1000 to 500.

What is the value of the price elasticity of demand for shirts?

A greater than 1

B unitary

C less than 1

D zero

Solution 8

Answer: **A**

Why

- PED = percentage change in quantity ÷ percentage change in price.
- Price rises from \$8 to \$10, which is $+25\%$; quantity falls from 1000 to 500, which is -50%.
- $-50/25 = -2$, so demand is elastic.

Question 5

0455/13 N24 ▪ Q5 ▪ 1 mark

5 The table shows the amounts demanded and supplied of tomatoes at different prices. The initial equilibrium is at a price of $40.

price ($)	demand (kg)	supply (kg)
10	20	2
20	16	5
30	12	8
40	10	10
50	8	12

The following year, more efficient harvesting means that the supply increases by 50% at each price.

Question 5

What will happen to the suppliers' total revenue?

A It will fall by $10.

B It will fall by $40.

C It will rise by $10.

D It will rise by $200.

Solution 5

Answer: **B**

Why

- At the stated price, compare the quantity demanded with the quantity supplied.
- If they are equal that price is the equilibrium.
- If demand exceeds supply there is a shortage and price will be pushed up.

Question 7

0455/11 J24 ▪ Q7 ▪ 1 mark

7 A firm changes the price of its product and finds that its revenue increases.

Which combination of price change and price elasticity of demand would have caused this?

	price	price elasticity of demand
A	falls	between 0 and 1
B	falls	equal to 1
C	rises	between 0 and 1
D	rises	greater than 1

Solution 7

Answer: **C**

Why

- Revenue rises when price is cut and demand is elastic, because quantity rises proportionately more.
- Revenue also rises when price is raised and demand is inelastic.
- So the two workable combinations are cut-and-elastic or raise-and-inelastic.