

Exam Questions

3. Price Determination in Competitive Markets

Demand Curves / Demand Curves: Real World Analysis / Supply Curves / Supply Curves: Real World Analysis / The Determination of Market Equilibrium / Analysing Changes to Market Equilibrium / Price Elasticity of Demand (PED) / Income & Cross Elasticities of Demand / Price Elasticity of Supply (PES) / Interrelationships Between Markets

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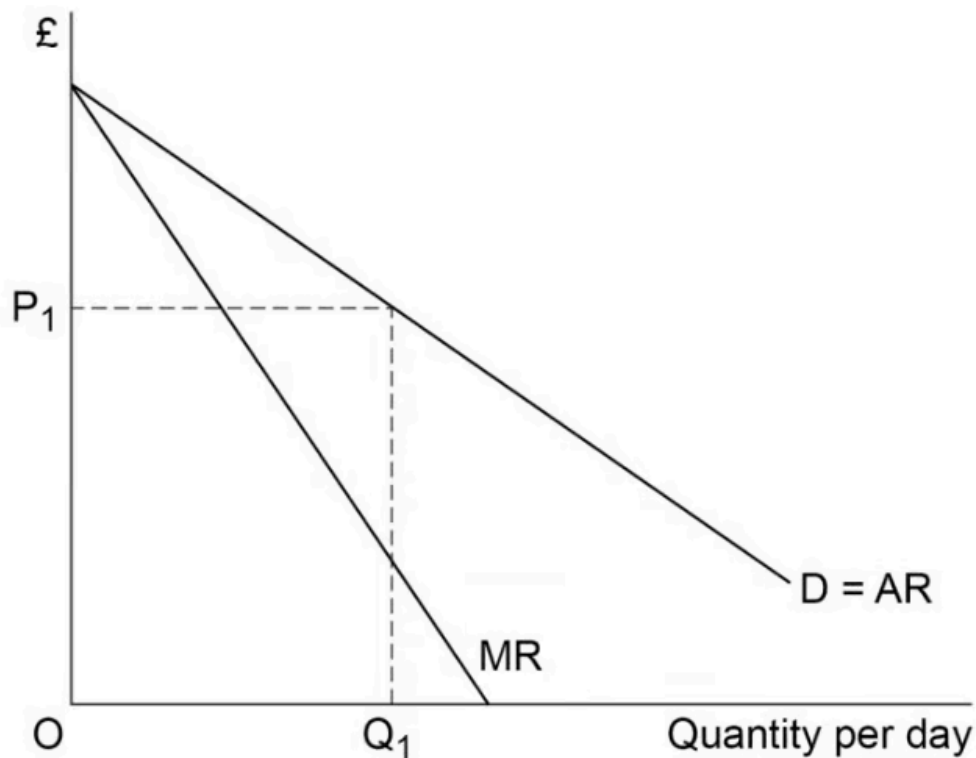


Total Marks

/37

- 1 **Figure 4** shows a firm's demand (D) curve and its marginal revenue (MR) curve for good X. The firm initially sells OQ_1 units of X per day at a price of OP_1 .

Figure 4



If the firm increases its price by 10%

- A. price elasticity of demand will decrease.
- B. price elasticity of demand will not change.
- C. total revenue will decrease.
- D. total revenue will increase.

(1 mark)

- 2 **Table 3** shows the demand for and supply of oranges at a range of prices between 10 pence and 30 pence.

Table 3

Price (pence)	Quantity supplied (000s)	Quantity demanded (000s)
10	100	125
15	120	120
20	122	108
25	125	100
30	128	88

As a result of an increase in consumers' incomes, the demand for oranges increases by 25% at each of the prices shown in **Table 3**.

After the rise in incomes:

- A.** at a price of 10 pence, excess demand increases by 50%.
- B.** at a price of 30 pence, excess supply falls by 75%
- C.** the equilibrium market price increases by two-thirds
- D.** the price elasticity of demand increases by 25% at each price.

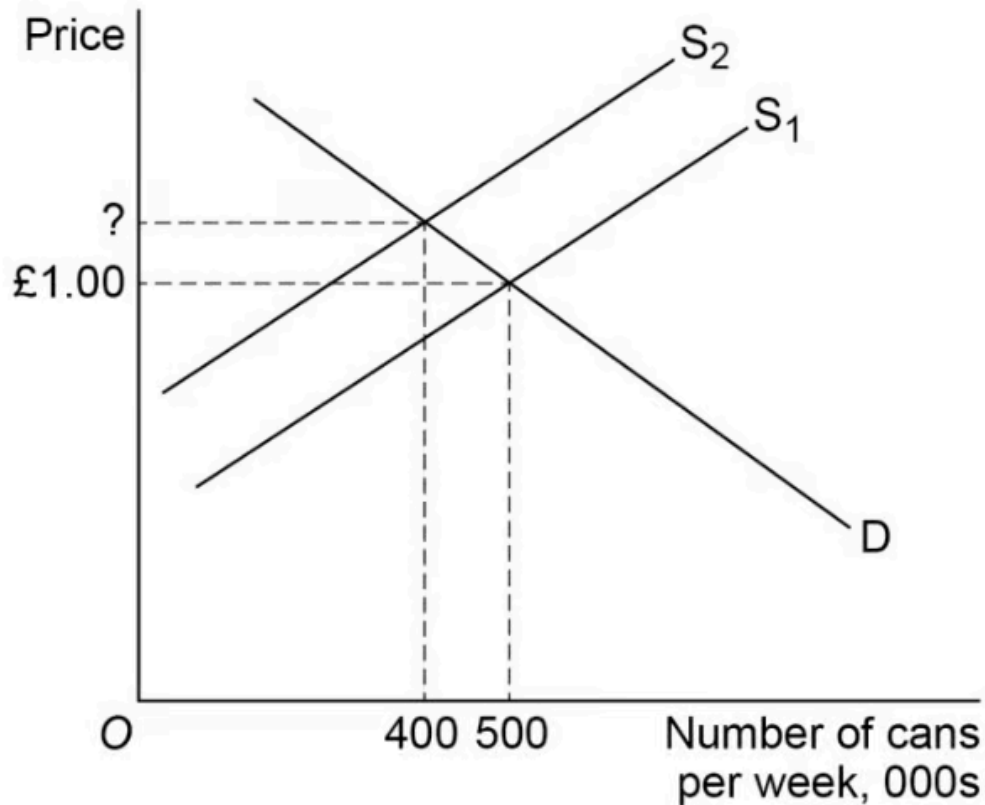
(1 mark)

3 All other things being equal, the demand for labour is more likely to be wage elastic if

- A.** it is difficult to substitute capital for labour.
- B.** the cost of labour is a low percentage of total costs.
- C.** the final product has a high price elasticity of demand.
- D.** the supply curve for labour is wage elastic.

(1 mark)

- 4 The diagram below shows the market demand (D) curve and two supply (S_1 and S_2) curves for a brand of soft drink. The drink is a demerit good because of its high sugar content. The government imposes an indirect tax on each can sold that cuts consumption by 100 000 cans per week.



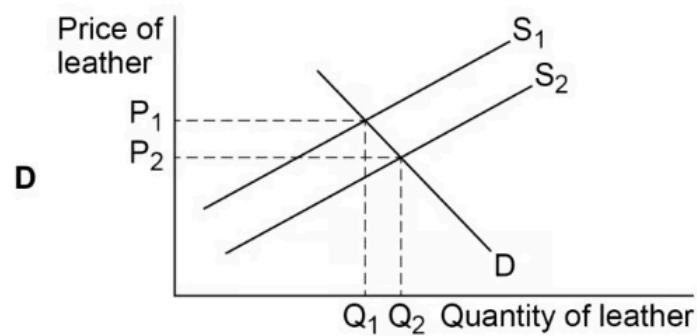
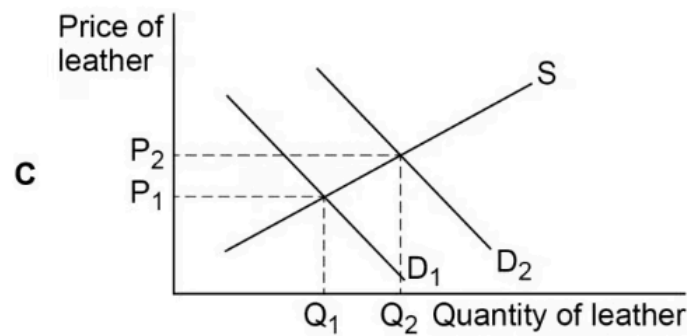
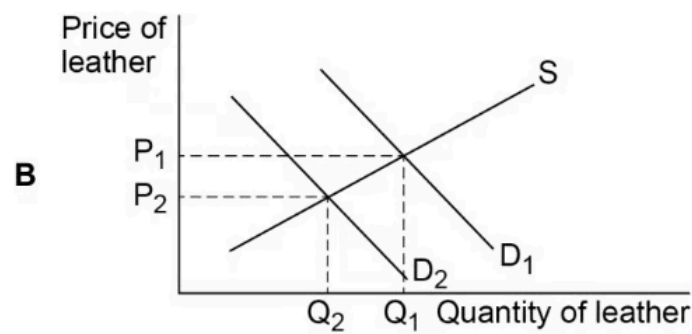
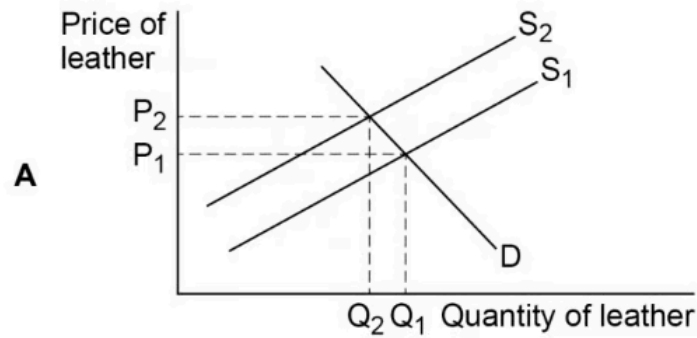
If the price elasticity of demand for the drink is -2.0 , the price must have increased by

- A. 5p
- B. 10p
- C. 15p
- D. 20p

(1 mark)

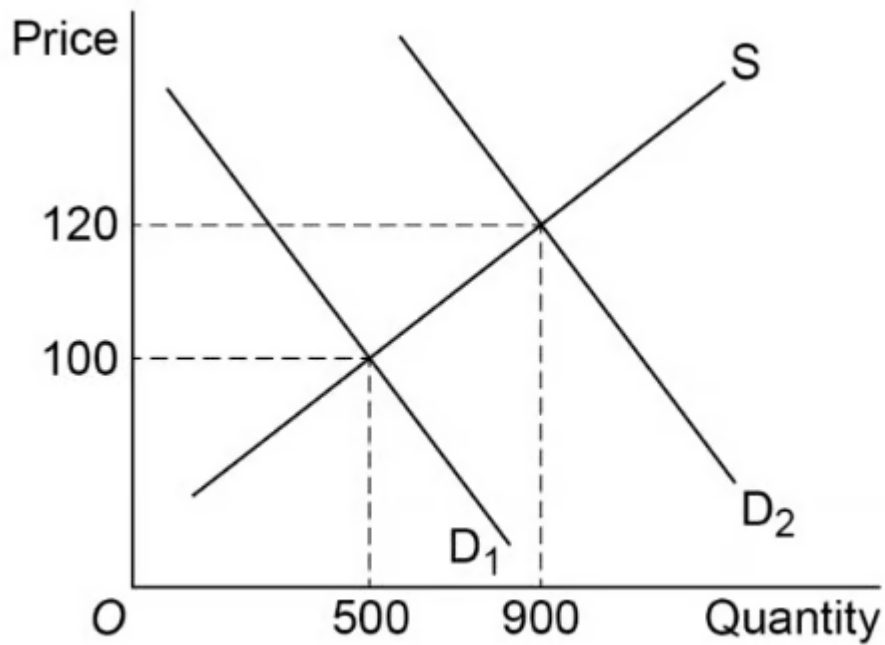
- 5 Beef and leather are in joint supply. Changes in farming methods have resulted in a significant fall in the price of chicken, a substitute for beef. All other things being equal,

which one of the following diagrams, **A**, **B**, **C**, or **D**, best illustrates the effects of the fall in the price of chicken on the market for leather?



(1 mark)

- 6 The diagram below shows two market demand curves (D_1 and D_2) and the market supply curve (S), for Good X.



The price elasticity of supply of Good X when the demand curve shifts from D_1 to D_2 is

- A. +0.25
- B. +2.0
- C. +4.0
- D. +7.5

(1 mark)

- 7 Explain the likely causes of the main changes in house prices that have taken place between 2007 and 2017.

[illegible]

(15 marks)

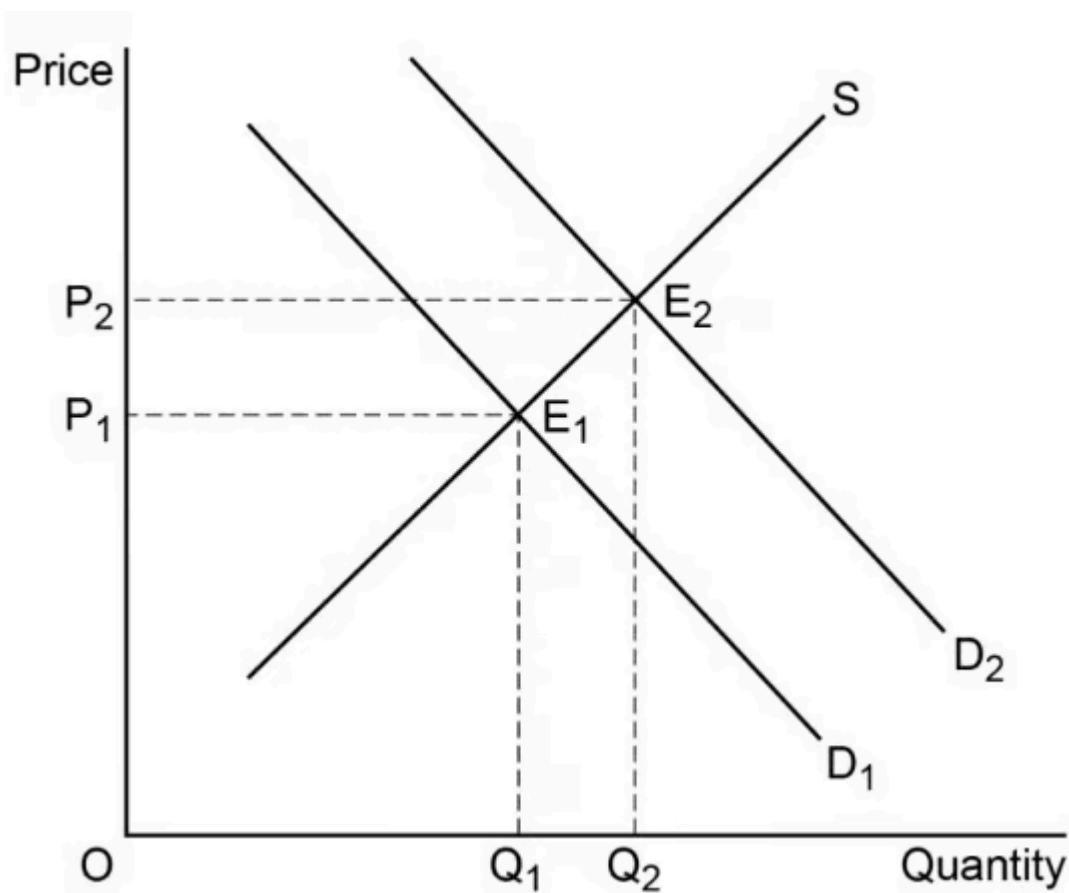
- 8 At the initial market equilibrium, the income elasticity of demand for fresh chickens is +1.5, and the price elasticity of supply is +1.0. Then there is a 5% increase in consumers' income.

Which one of the following combinations, **A**, **B**, **C** or **D**, is most likely to show the changes in the market equilibrium price and quantity?

	Price	Quantity
A	Higher	Unchanged
B	Higher	Higher
C	Unchanged	Unchanged
D	Lower	Higher

(1 mark)

- 9 The diagram below shows the demand curves (D_1 and D_2) and the supply curve (S) in the market for good X. The initial market equilibrium is at E_1 .



The increase in market demand from D_1 to D_2 results in a new market equilibrium at E_2 . The market mechanism that leads to the establishment of the new equilibrium is based on

- A. excess demand for good X at the initial price of P_1 .
- B. excess demand for good X at the new price P_2 .
- C. excess supply of good X at the initial price of P_1 .
- D. excess supply for good X at the new price P_2 .

(1 mark)

- 10** The price elasticity of demand for games consoles is -1.2. It can be concluded that a 10% reduction in their price would lead to a percentage change in demand of
- A.** -8.3%
 - B.** -12.0%
 - C.** +8.3%
 - D.** +12.0%

(1 mark)

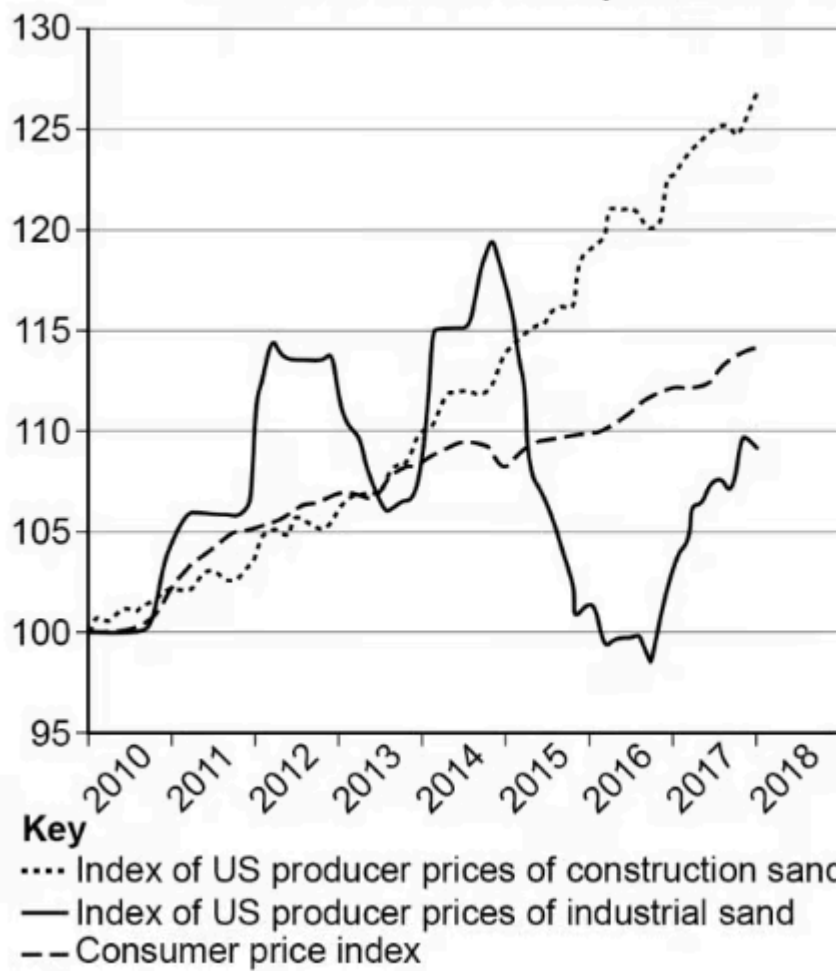
- 11** The price of good Y, a substitute for good X, rises from 75p to £1. As a result, the quantity of demand for good X rises from 3 million units to 5 million units per month.

What is the value of the cross elasticity of demand for good X with respect to good Y?

- A.** +0.5
- B.** -0.5
- C.** +2.0
- D.** -2.0

(1 mark)

Figure 1: Indices of US producer prices for sand, Jan 2010–Jan 2018 (Jan 2010=100)



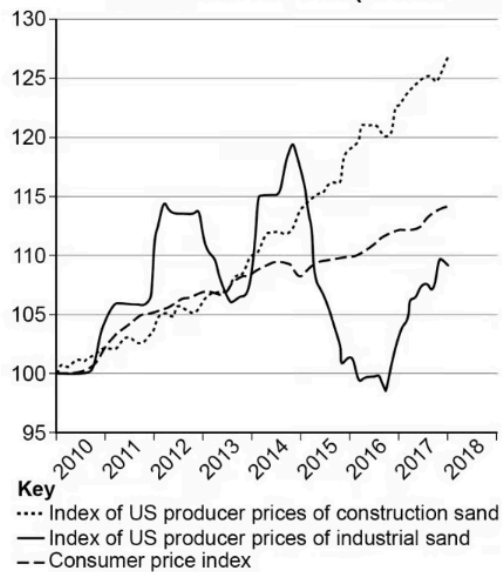
Source: Federal Reserve Economic Data, 2018

Using the data in **Extract A (Figure 1)**, calculate the percentage change in the price of construction sand between January 2014 and January 2018. Give your answer correct to **one** decimal place

(2 marks)

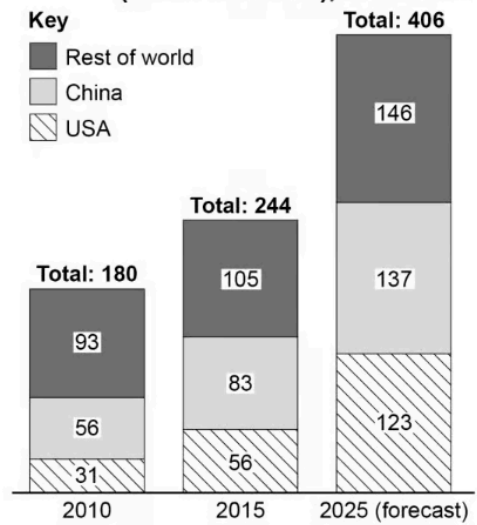
13 Extract A

Figure 1: Indices of US producer prices for sand, Jan 2010–Jan 2018 (Jan 2010=100)



Source: Federal Reserve Economic Data, 2018

Figure 2: Global demand for sand (millions of tons), 2010–2025



Source: The Freedonia Group/National Post, 2018

Explain how the data in **Extract A** (Figures 1 and 2) show that expansion in the global sand market is leading to prices of construction sand rising in real terms

(4 marks)

**Figure 3: UK (excluding Northern Ireland)
rail industry income, 2010–2016**

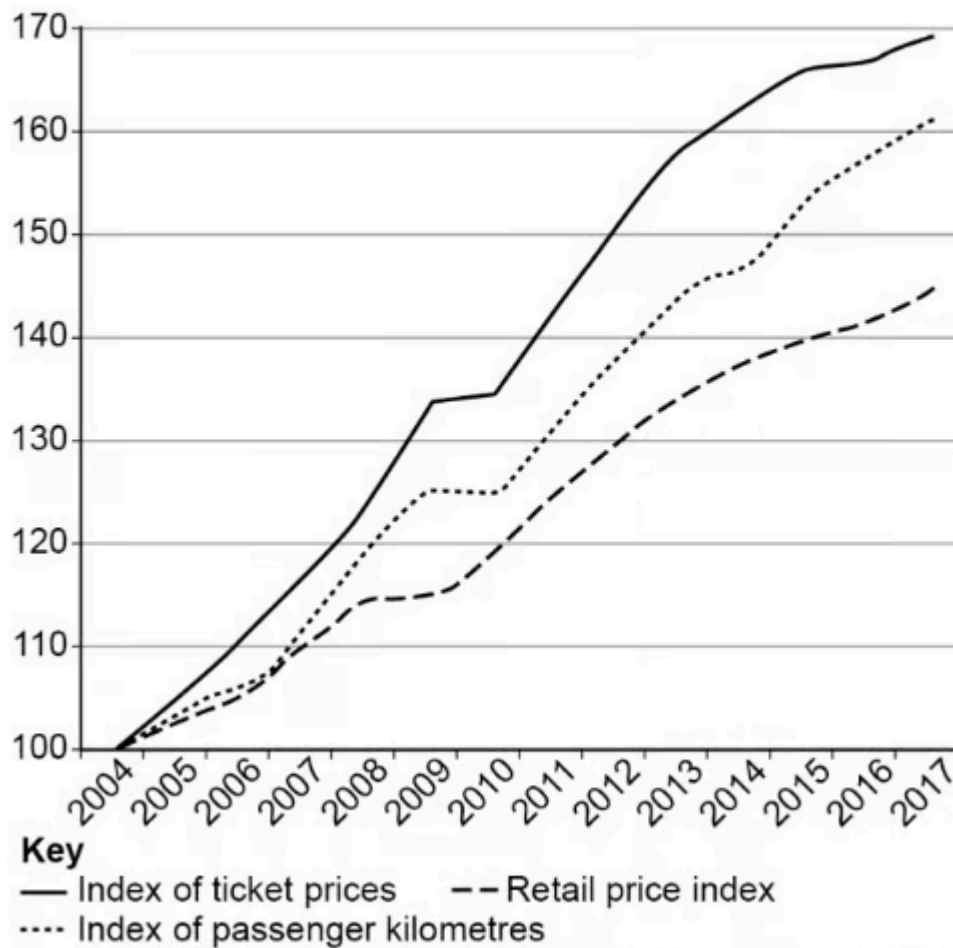
£ millions	2010–11	2015–16
Passenger income	7 588	9 160
Government funding	6 182	6 697
Network Rail income	2 565	2 300
Other income	793	833
Total	17 128	18 990

Passenger income as % of total	44%	48%
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Using the data in **Extract D (Figure 3)**, calculate the amount of government funding per £ of passenger income in the UK rail industry for the year 2015–16. Give your answer correct **to the nearest penny**

(2 marks)

Figure 4: Indices of UK rail ticket prices and passenger kilometres, 2004–2017 (2004=100)



Source: Office of Rail and Road, Feb 2017

Explain how the data in **Extract D (Figure 4)** show that in the UK, between 2004 and 2017, changes in the demand for rail travel contributed to changes in the price of rail travel

(4 marks)