

Past-paper walk-through

Demand ■ 2.1

eXercise

Questions in this set

- 2022 Set 1 Q3

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 3

2022 Set 1 ■ Q3

- (a) The local market for Good X has a perfectly elastic supply. Draw a correctly labeled graph for the local market for Good X with a market equilibrium price of \$5. Label the equilibrium price as \$5, and label the equilibrium quantity for the market with a specific value based on the data provided in the table.
- (b) Assume the cost of production increases, which causes the price of Good X to increase from \$5 to \$7.
- (i) Calculate the price elasticity of demand for Good X as the price increases from \$5 to \$7. Show your work.
 - (ii) Identify whether the demand for Good X is elastic, inelastic, or unit elastic in that range of prices.
- (c) Could Emily's marginal benefit for the second unit of Good X equal \$4.50 ? Explain.
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Question 3

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

STOP

END OF EXAM

Solution 3

(a)

Mark scheme

- Graph, 2 points (1 point each): (1) A downward-sloping demand curve D and a perfectly elastic (horizontal) supply curve S at price = \$5, both correctly labeled. (2) The equilibrium quantity, read from the given demand data at $P = \$5$, labeled as $Q = 8$ units on the quantity axis at the S - D intersection.

Solution 3

(b)(i) Mark scheme

■ $E_d = \left| \frac{\% \Delta Q_d}{\% \Delta P} \right| = \frac{\left| \frac{4-8}{8} \times 100 \right|}{\left| \frac{7-5}{5} \times 100 \right|} = \frac{50\%}{40\%} = 1.25$ (magnitude of the price elasticity of demand as price rises from 5 to 7 and quantity falls from 8 to 4 units).

Solution 3

(b)(ii)

Mark scheme

- Elastic, since $|E_d| = 1.25 > 1$.

Solution 3

(c)

Mark scheme

- No. Emily's marginal benefit for the second unit must be greater than or equal to the price she was willing to pay for it (7) – *since she purchased it at 7*, her marginal benefit must be at least 7, so 4.50 is inconsistent with that purchase.