

Revision Worksheet Answers

A2 Economics

Answer: Calculating Revenue

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WORKSHEET ..Answer..

Revision Topic : Calculating the Revenue of a Firm

Answers to Multiple Choice Questions

You can be rewarded up to a maximum of two marks for correct explanation even if they have the wrong key.

You can be rewarded a maximum of two marks for identifying and explaining incorrect options.



Question 1

Correct Answer C (1 mark)

Answer Guide :

Definition of marginal revenue - which may be implicit in the presented calculation - (1 mark). A properly worked out solution (2 marks). Solution may take the form of either working out the change in total revenue: from £100 to £100.98, or saying that the last cake earned £1.98 but 2p lost on the previous 50 cakes. Answer = £0.98.

Question 2

Correct Answer E (1 mark)

Answer Guide :

Definition of MR (1 mark). Shape of the relation between AR and MR (probably most easily captured in a diagram) (2 marks). Also accept: Explanation based on Demand curve elasticities (2 marks)

Question 3

Correct Answer E (1 mark)

Answer Guide :

Definition of marginal revenue (1 mark). Explanation or diagram explaining the need to set $MR=0$ (2 marks). (Also allow 1 mark if the candidate has simply drawn a diagram showing the firm producing where $MR=0$).

Question 4

Correct Answer B (1 mark)

Answer Guide :

Definition of total revenue (1 mark). Revenue per unit, or price, or AR, is EG or BD (1 mark) therefore $DE \times BD = TR$ (1 mark). Also award: the profit maximizing firm will produce where $MR = MC$ (1 mark), shading the relevant area (1 mark)

Question 5

Correct Answer E (1 mark)

Answer Guide :

Explanation of relationship between average revenue, marginal revenue and total revenue (3 marks). If the candidate uses the diagram to illustrate $MR = 0$ corresponds with TR max award up to (2 marks) for this alone.

Question 6

Correct Answer D (1 mark)

Answer Guide :

Explanation of sales maximization in terms of maximum volume of output consistent with normal profit or breaking even (up to 3 marks) making only normal profit or breaking even. (1 mark) Diagram of $AR=AC$ or written explanation (up to 3 marks).

Question 7

Correct Answer A (1 mark)

Answer Guide :

Definition of marginal revenue (1 mark) and average revenue (1 mark) explanation that both are constant and equal - i.e the firm is a price take (1 mark). Also accept diagram showing horizontal AR and MR curve (1 mark) and written explanation i.e. perfect

competition (1 mark) Also award for recognition of constant total revenue gradient (1 mark).

Question 8

Correct Answer C (1 mark)

Answer Guide :

Definition of formula of marginal revenue (1 mark)

Correct calculation e.g. £1.1m minus £0.4m = £0.7m

Or £5.5m minus £4.8 = £0.7m (2 marks)

Also award: Initial total revenue £4.8 million (4 x £1.2m) (1 mark)

New total revenue £5.5 million (5 x £1.1m) (1 mark)

Question 9

Correct Answer C (1 mark)

Answer Guide :

Definition of Marginal revenue: Extra revenue gained from the sale of one more unit (1 mark) Identification of A as revenue maximization (1 mark). Explanation of why MR=0 is revenue maximization (1 mark). Use of diagram to show relationship and MR=0 (1 mark)

Question 10

Correct Answer E (1 mark)

Answer Guide :

Correct calculations of both AR and MR (2 marks) If one set of calculation (1 mark)

Output of Boats	Total Revenue £	Average Revenue £	Marginal Revenue £
0	0	0	0
1	20,000	20,000	20,000
2	38,000	19,000	18,000
3	54,000	18,000	16,000
4	68,000	17,000	14,000
5	80,000	16,000	12,000

Also award correct definition or formula of AR or MR (1 mark) Accept diagram of falling AR and MR curves/or explanation e.g. to sell more firm has to cut price. (1 mark)

Question 11

Correct Answer C (1 mark)

Answer Guide :

Definition of formula of Average Revenue or Marginal Revenue (1 mark). Total revenue is rising at a decreasing rate so MR and AR must be falling (1 mark). Application to total revenue diagram e.g. a fall in the marginal revenue is shown by the gradient on the total revenue curve or marginal revenue is zero when total revenue is maximized (1 mark). Also award for diagram of falling AR and MR curves (1 mark) The firm is operating in an imperfect market (1 mark).

Question 12

Correct Answer D (1 mark)

Answer Guide :

Definition of marginal revenue i.e. $\frac{\Delta TR}{\Delta Q}$ (1 mark)

Marginal revenue is zero at point X (1 mark)

Annotation of diagram, showing total revenue at a maximum above position X (1 mark)

Explanation of why revenue maximization occurs at MR=0 (marginal analysis to the left of X MR is positive and to the right MR is negative) (1 mark)