

University Business

Name: _____ Score: _____

1. The opportunity cost of the second cake is the flour and butter it uses.
☐ True ☐ False
2. With $Q_d = 1200 - 100P$ and $Q_s = 400 + 100P$, what is the equilibrium price, in £?
_____ £
3. On $Q_d = 1200 - 100P$ at the price £4 ($Q = 800$), what is the point elasticity? Give the value with its sign, to one decimal.
_____ ε
4. Output goes from 340 loaves with 4 bakers to 400 with 5. What is the fifth baker's marginal product, in loaves?
_____ loaves
5. Why is a perfectly competitive firm's demand curve flat?
☐ because entry is blocked
☐ because marginal cost is constant
☐ it is too small for its output to move the market price
☐ because it sells an inferior good
6. Private marginal cost at $Q = 740$ is £3.40 and the external cost is £1.20 a loaf. What is the marginal social cost, in £?
_____ £
7. Nimbus bakes one cake a day. What does the second cake cost?
☐ 8 loaves
☐ £8, the price of a cake
☐ 6 loaves
☐ 11 loaves
8. At a price of £2, how large is the shortage, in loaves?
_____ loaves
9. The loaf moves from £4 to £5 and quantity falls $800 \rightarrow 700$. What happened to revenue, and why?
☐ cannot be told without knowing costs
☐ fell to £3,500, because demand is elastic

☐ rose to £3,500, because demand is inelastic at that step

☐ stayed at £3,200, because the changes cancel

10. MC passes through ATC's minimum. Why?

☐ because the wage is constant

☐ it is a coincidence of this table

☐ a loaf cheaper than the average pulls the average down, and one dearer pushes it up – the turning point is where they meet

☐ because fixed cost is spread over more loaves

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1. **False**

Opportunity cost is the next-best alternative given up – the 8 loaves those hours would have baked. Ingredients bought either way are not the cost.

2. **4 £**

Setting the plans equal: $1200 - 100P = 400 + 100P$ gives $800 = 200P$, so $P^* = £4$ and $Q^* = 800$.

3. **-0.5 ε**

$\varepsilon = -100 \times \frac{4}{800} = -0.5$: quantity moves half as fast as price, in percentage terms.

4. **60 loaves**

$400 - 340 = 60$ loaves – and the sequence 100, 90, 80, 70, 60... is diminishing returns in numbers.

5. **it is too small for its output to move the market price**

With many sellers of an identical good, the firm can sell any amount at the market price – and nothing at a penny more. Price, AR and MR are one flat line.

6. **4.6 £**

$MSC = MPC + 1.2 = 3.40 + 1.20 = £4.60$ – exactly the price buyers pay under the corrective tax, because at the optimum willingness-to-pay equals full social cost.

7. **8 loaves**

The frontier falls from 66 to 58 loaves. The 6-loaf segment belongs to the first cake; the third would cost 11.

8. **400 loaves**

Buyers plan $1200 - 200 = 1000$; bakers offer $400 + 200 = 600$. The 400-loaf gap bids the price up.

9. **rose to £3,500, because demand is inelastic at that step**

Price rose 25% while quantity fell only 12.5% – the rectangle grew from 3,200 to 3,500. Costs are irrelevant to the revenue test.

10. **a loaf cheaper than the average pulls the average down, and one dearer pushes it up – the turning point is where they meet**

The grade-point-average logic: one small grade pulls the average down, one large one pushes it up. The average can only turn at the marginal value.