

Chapter 11

Put into practice questions

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Ten units are sold at £15 each. To sell an 11th unit, the price must be reduced to £12. Calculate the old and new total revenue.

Old revenue = £150
New revenue = $11 \times 12 = £132$

Calculate the marginal revenue of the 11th unit
- £132 - £150 = - £18

To sell a 12th unit, the price must be lowered to £10 for all units. Calculate the marginal revenue of the 12th unit.

Total revenue for 12 units = $12 \times 10 = £120$
Marginal revenue = -£12

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The total revenue from selling 20 units is £300. Imagine that the marginal revenue from selling the 21st unit is either £30, £100, £0, or -£50.

What is the total revenue from 21 units for each of these situations?

£330
£400
£300
£250

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A business does not necessarily maximize its profits when its revenue is maximized. Why not?

Because it depends on the costs

End of chapter put into practice questions

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If marginal revenue is constant at £10 a unit, draw the total revenue curve.

Total revenue is straight line increasing by £10 every unit sold

The marginal revenue from selling each extra unit is £10, £8, £6, £3, £0, –£2. Show this on a diagram and below plot the total revenue associated with this, showing the links between the two.

The total revenue will change by the amount of marginal revenue with every unit sold. This means the total revenue increases by less and less each unit until when marginal revenue is zero and total revenue stays constant. When marginal revenue is negative total revenue falls.

Show the highest possible output that can be produced in a market without making a loss.

See figure 11.7

Show the output which maximizes sales revenue.

See figure 11.7

Show the effect of an increase in marginal costs on the profit-maximizing output of a monopoly business.

If marginal costs increase this will mean the output of the profit maximizing firm (which produces when marginal revenue equals marginal costs) will fall

Show the break-even point and shutdown point on a diagram. Show the profit or loss if a price between the shutdown and break-even price is charged.

See figure 11.9 and 11.10

Explain with a numerical example how business A could make more profits than business B but be less profitable.

Business A may have invested £ 10 million and made a profit of £2 million; this is a 20% return. Business B may have invested £2 million and made a profit of £1 million which is a 50% return.

If a customer was charged for every single unit exactly equal to what they are willing and able to pay, what would the relationship between the marginal revenue curve and the demand curve look like? Explain.

The price paid would be what it was worth to consumers; to sell more the price would not need to be reduced on previous units so the marginal revenue would be the same as the demand curve.