eLearneconomics: Marginal analysis/equilibrium output (1)

Student response

(a) Complete the following statements, using marginal analysis (i.e., the relationship between MR and MC).

(i) Firms maximise profit where _____

(ii) Firms minimise loss where _____

(iii) Firms make a greater loss or smaller profit if they do not produce at where _____

(iv) A firm will decrease or increase output to where _____

(b) Complete the table.

Situation	Type of firm { Perfect / Imperfect }	Relationship between MC and MR
(i) To maximise its profit the firm must decrease its output and raise prices		
(ii) To maximise its profit the firm must decrease its output and price remains the same		
(iii)	Imperfect	MR < MC
(iv) To maximise its profit the firm has to lower its price and increase its output		
(v) To maximise its profit the firm has to leave output unchanged		
(vi) To maximise its profit the firm has to keep its price the same but increase its output		

(c) Complete the table for imperfect competition that desires to achieve equilibrium output.

Change in price	Change in output	Relationship between MC and MR
(i)		MC = MR
(ii)		MC > MR
(iii)		MR > MC

(d) Complete the table for a perfectly competitive firm that desires to achieve equilibrium output.

Change in price	Change in output	Relationship between MC and MR
(i)	increase	
(ii)	decrease	
(iii) do nothing	do nothing	

eLearneconomics: Marginal analysis/equilibrium output (1a)

Solution

(a) Complete the following statements, using marginal analysis (i.e., the relationship between MR and MC).

(i) Firms maximise profit where MR = MC

(ii) Firms minimise loss where MR = MC

(iii) Firms make a greater loss or smaller profit if they do not produce at where MR = MC

(iv) A firm will decrease or increase output to where MR = MC

(b) Complete the table.

Situation	Type of firm (Perfect / Imperfect)	Relationship between MC and MR
(i) To maximise its profit the firm must decrease its output and raise prices	Imperfect	MC > MR (MR < MC)
(ii) To maximise its profit the firm must decrease its output and price remains the same	Perfect	MC > MR (MR < MC)
(iii) To maximise profit the firm must decrease output and increase price	Imperfect	MR < MC
(iv) To maximise its profit the firm has to lower its price and increase its output	Imperfect	MC < MR (MR > MC)
(v) To maximise its profit the firm has to leave output unchanged	Both	MR = MC
(vi) To maximise its profit the firm has to keep its price the same but increase its output	Perfect	MC <MR (MR > MC)

(c) Complete the table for imperfect competition that desires to achieve equilibrium output.

Change in price	Change in output	Relationship between MC and MR
(i) Do nothing	Do nothing	MC = MR
(ii) Increase	Decrease	MC > MR
(iii) Decrease	Increase	MR > MC

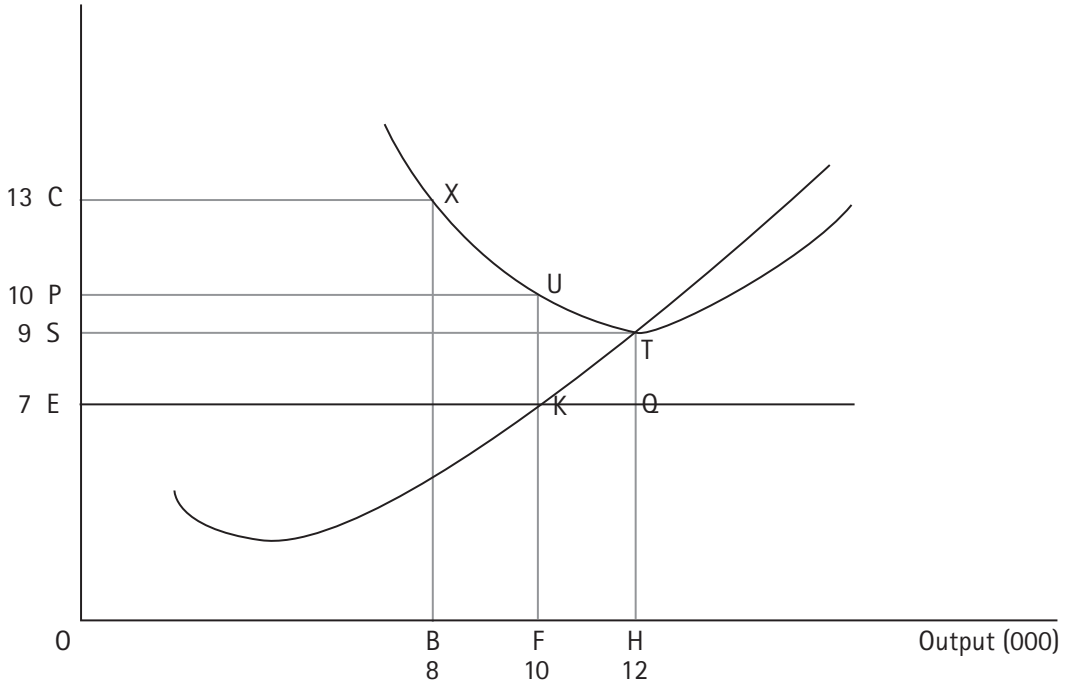
(d) Complete the table for a perfectly competitive firm that desires to achieve equilibrium output.

Change in price	Change in output	Relationship between MC and MR
(i) remains unchanged	increase	MR > MC (MC < MR)
(ii) remains unchanged	decrease	MR < MC (MC > MR)
(iii) do nothing	do nothing	MC = MR

eLearneconomics: Marginal analysis/equilibrium output (2)

Student response

Use the graph to answer the questions below.



(a) Label the curves and axes in the graph.

(b) Give letters and values to identify at the equilibrium:

(i) Output _____ (ii) Price _____

(iii) TC _____ (iv) Quantity _____

(v) TR _____ (vi) Loss _____

(vii) AC _____ (viii) AR _____

(c) What made you choose the equilibrium output above?

_____

(d) In the graph, shade in the economic profit made.

(e) Define this type of profit.

_____

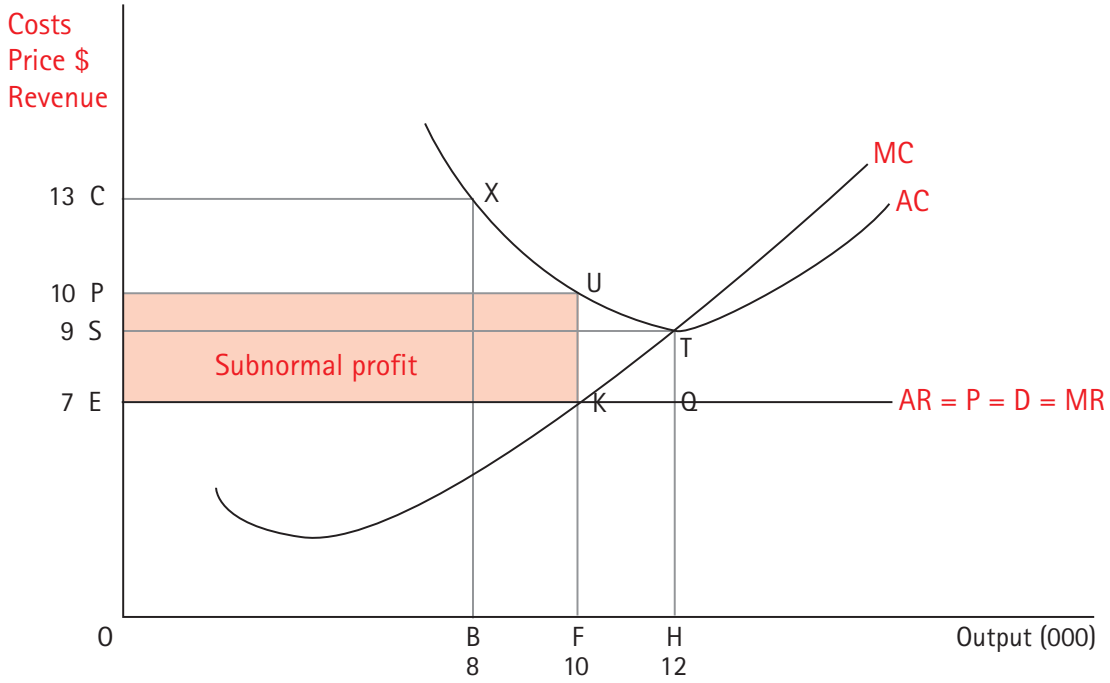
_____

_____

eLearneconomics: Marginal analysis/equilibrium output (2a)

Solution

Use the graph to answer the questions below.



(a) Label the curves and axes in the graph.

(b) Give letters and values to identify at the equilibrium:

(i) Output OF 10 000

(ii) Price OE $7

(iii) TC PUFO $100 000

(iv) Quantity OF 10 000

(v) TR FKEO $70 000

(vi) Loss PUKE $30 000

(vii) AC OP $10

(viii) AR OE $7

(c) What made you choose the equilibrium output above?

It's where MR = MC; any other position would be a greater loss.

(d) In the graph, shade in the economic profit made.

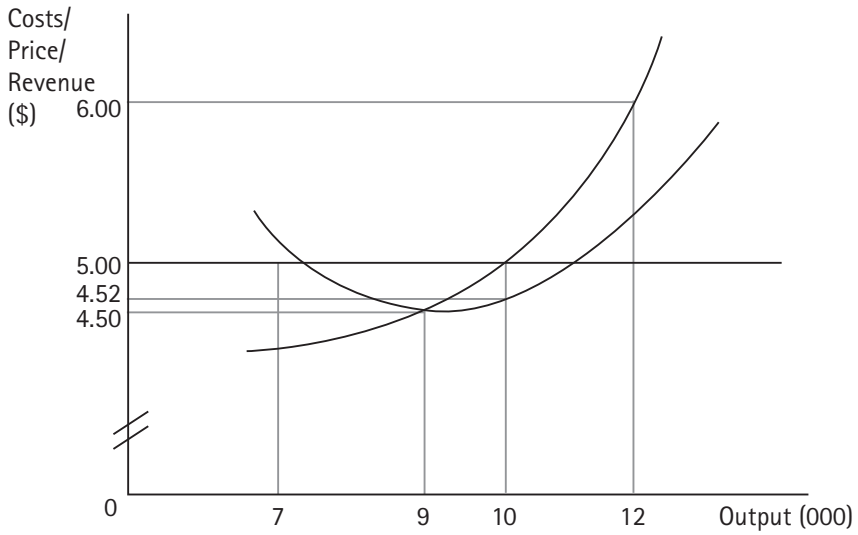
(e) Define this type of profit.

A return insufficient to keep entrepreneurs in their present activity.

eLearneconomics: Marginal analysis/equilibrium output (3)

Student response

Use the diagram to answer the questions that follow.



(a) Label all the curves and shade in the profit made.

(b) At the maximum profit (equilibrium output) position, what is the:

Price? _____ Total revenue? _____

Output? _____ Total cost? _____

Average revenue? _____

(c) By considering outputs 9 000, 10 000 and 12 000 units, explain using marginal analysis the determination of the maximum profit output level.

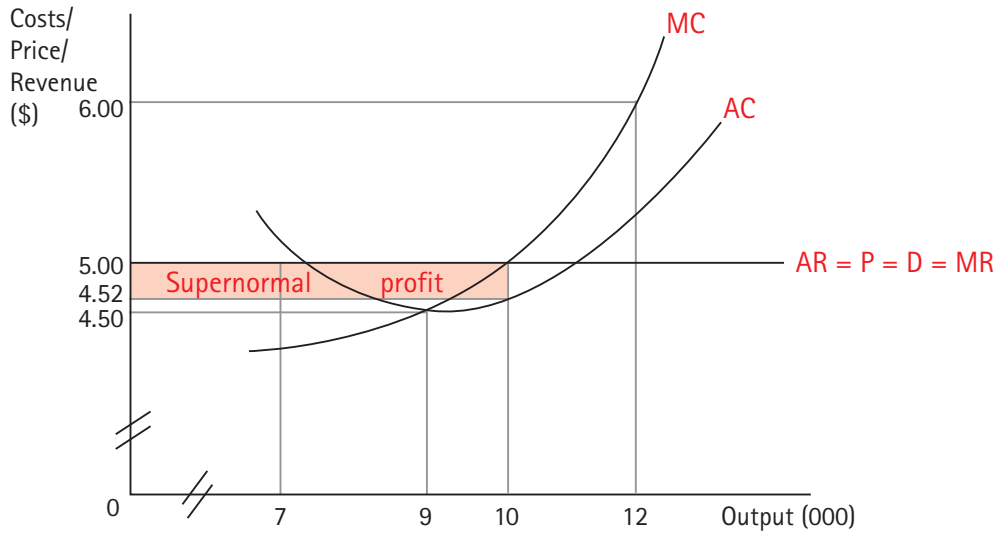
(d) What type of profit is made in the diagram?

(e) Define this type of profit.

eLearneconomics: Marginal analysis/equilibrium output (3a)

Solution

Use the diagram to answer the questions that follow.



(a) Label all the curves and shade in the profit made.

(b) At the maximum profit (equilibrium output) position, what is the:

Price? $5.00

Output? 10 000

Average revenue? $5.00

Total revenue? $50 000 (AR x Q = $5 x 10 000)

Total cost? $45 200 (AC x Q = $4.52 x 10 000)

(c) By considering outputs 9 000, 10 000 and 12 000 units, explain using marginal analysis the determination of the maximum profit output level.

- At 9 000 MR > MC (or MC < MR) and it is profitable to produce more.
- At 10 000 MR = MC. This is maximum profit.
- At 12 000 MR < MC (or MC > MR) and it is more profitable to produce less.

(d) What type of profit is made in the diagram?

Supernormal profit.

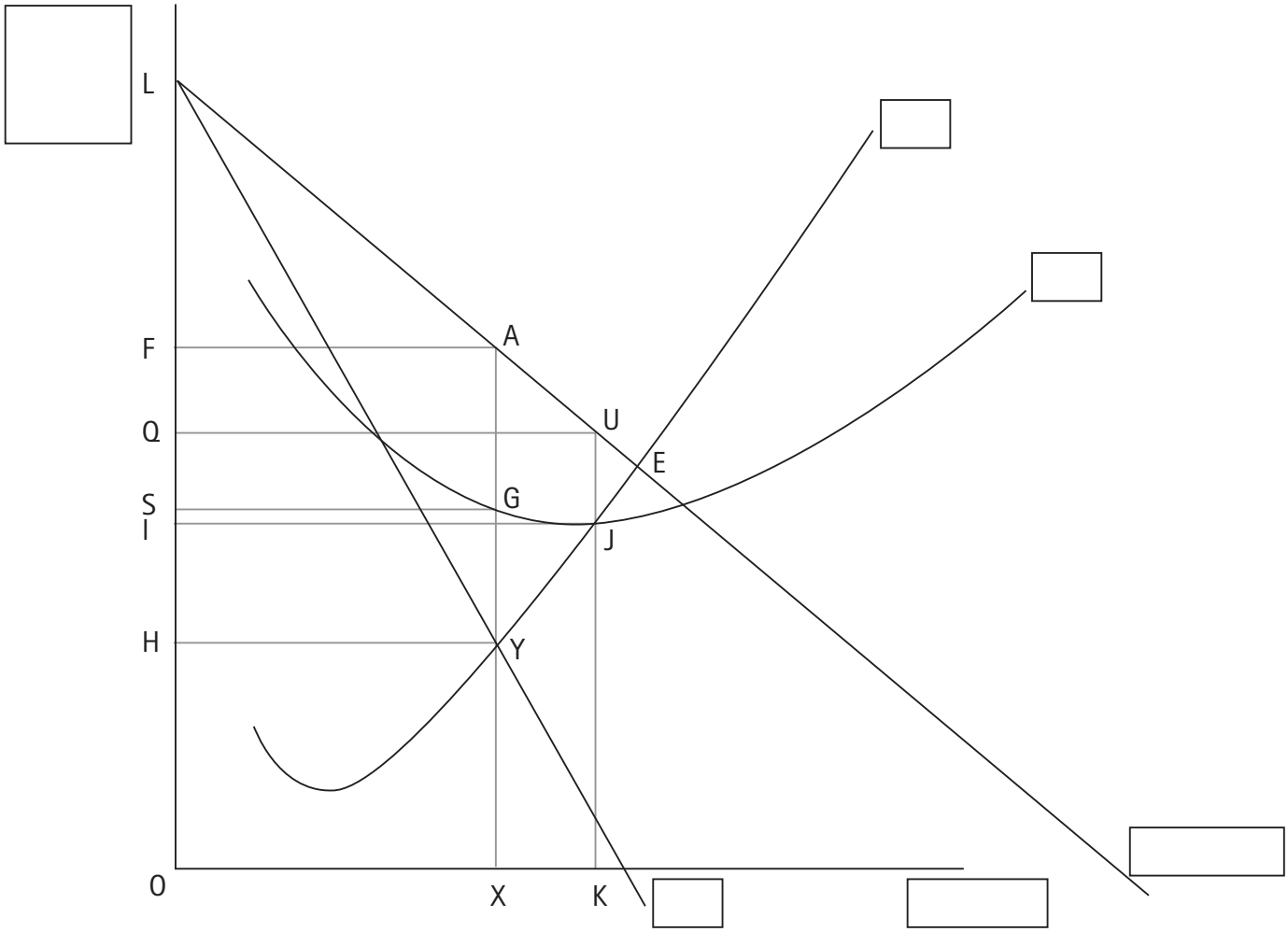
(e) Define this type of profit.

A return to the entrepreneur in excess (more than sufficient) of that required to hold them in their present activity.

eLearneconomics: Marginal analysis/equilibrium output (4)

Student response

Use the diagram to answer the questions below.



(a) Label the curves and axes, use the small boxes provided. Label the equilibrium price and quantity as P_M and Q_M respectively.

(b) Give letters to represent the following at the maximum profit position.

Price: _____

Output: _____

Average cost _____

Total revenue _____

Total cost _____

Profit _____

(c) What made you choose the maximum profit position?

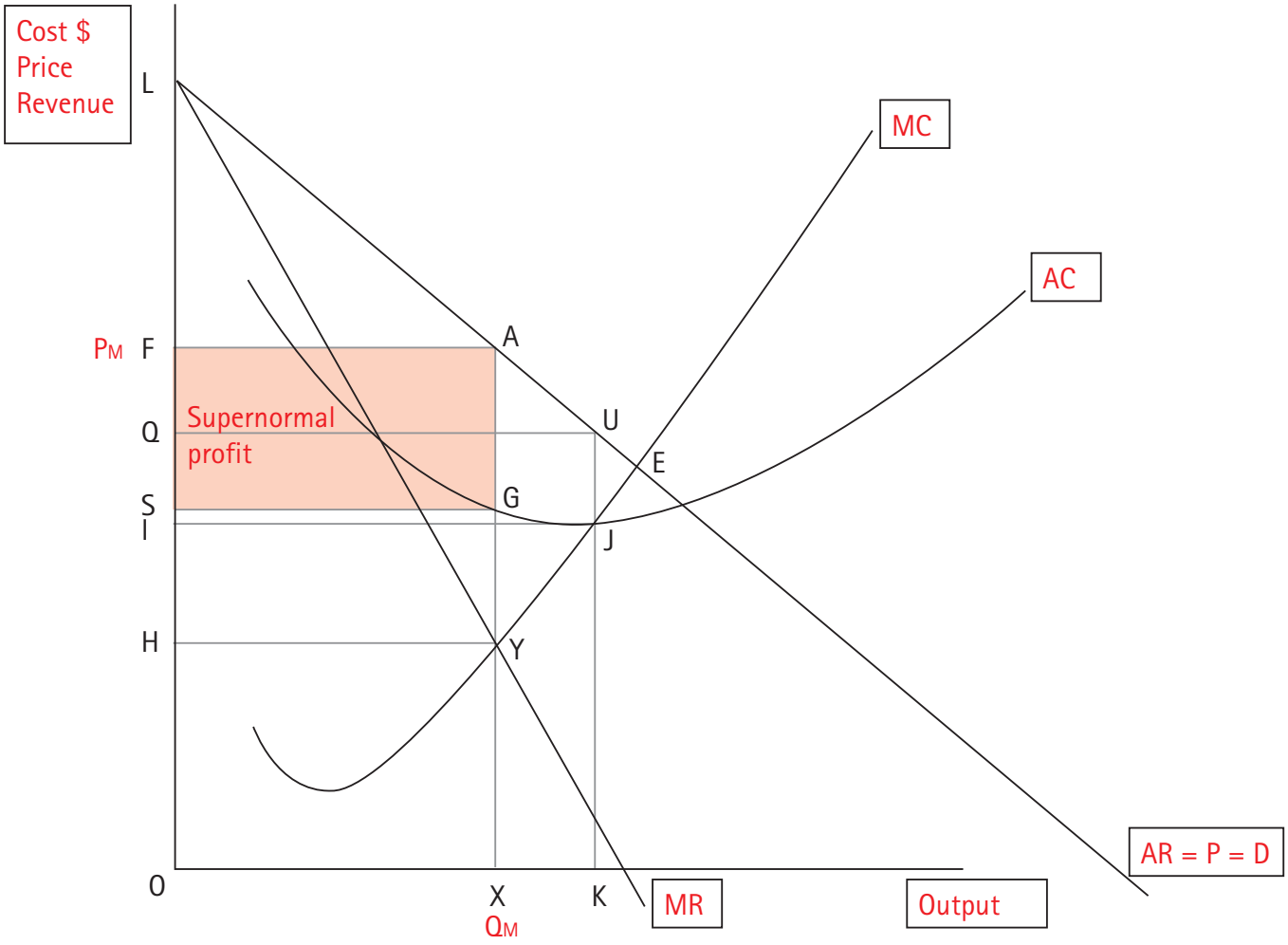
_____

(d) Shade and label the area of profit made.

eLearneconomics: Marginal analysis/equilibrium output (4a)

Solution

Use the diagram to answer the questions below.



(a) Label the curves and axes, use the small boxes provided. Label the equilibrium price and quantity as P_M and Q_M respectively.

(b) Give letters to represent the following at the maximum profit position.

Price: OF

Output: OX

Average cost OS

Total revenue FAXO (OXAF)

Total cost SGXO (XOSG)

Profit FAGS (AFSG)

Note: letters can be in any order but must give the area correctly.

(c) What made you choose the maximum profit position?

MR = MC; any other position is a smaller profit.

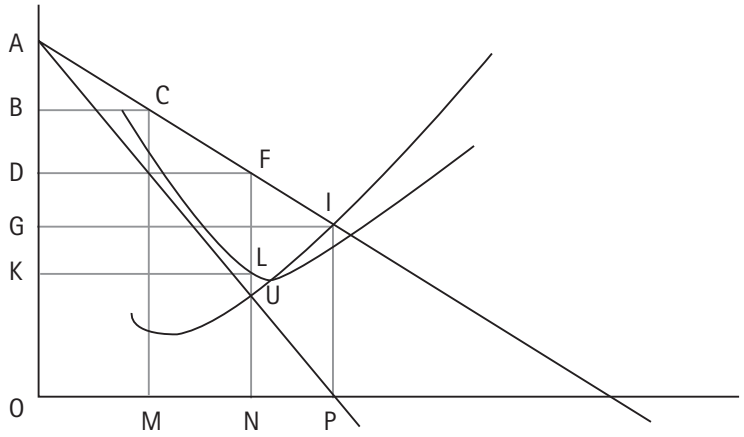
(d) Shade and label the area of profit made.

eLearneconomics: Marginal analysis/equilibrium output (5)

Student response

(a) Draw an imperfect competitor making supernormal profits in the diagram shown. Label the axes fully and then identify the equilibrium output as Q and price charged as P. Shade in the area of profit.

(b) Use the diagram below to answer the questions that follow.



(i) Label the curves and axes.

(ii) Shade in the profit made.

(iii) Give letters to identify the following at the profit maximising position.

Output _____ TR _____

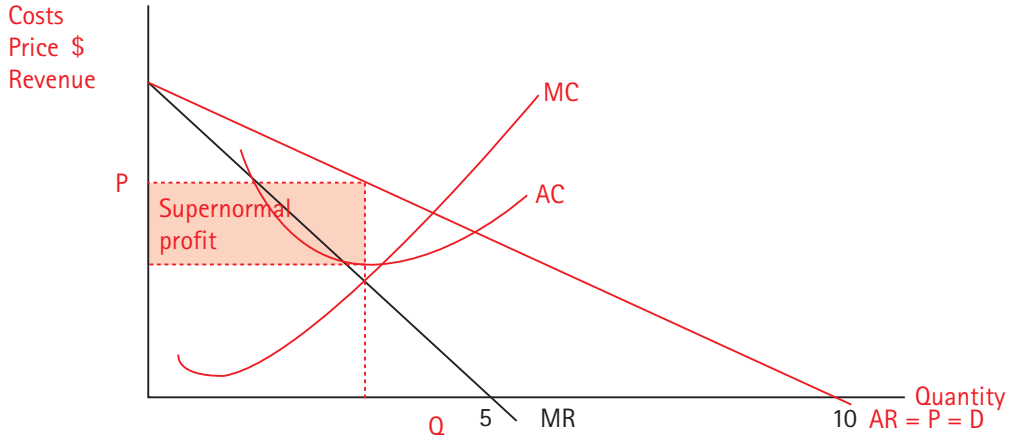
Price _____ TC _____

AR _____ Profit _____

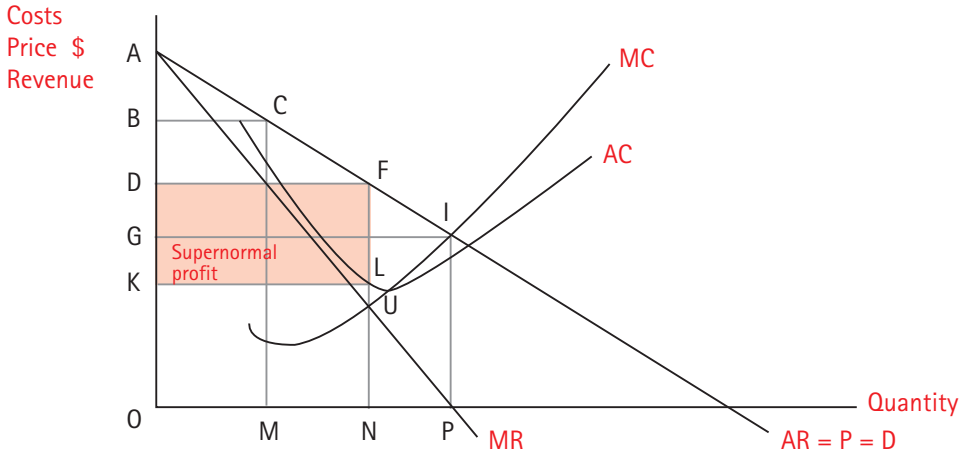
eLearneconomics: Marginal analysis/equilibrium output (5a)

Solution

(a) Draw an imperfect competitor making supernormal profits in the diagram shown. Label the axes fully and then identify the equilibrium output as Q and price charged as P. Shade in the area of profit.



(b) Use the diagram below to answer the questions that follow.



(i) Label the curves and axes.

(ii) Shade in the profit made.

(iii) Give letters to identify the following at the profit maximising position.

Output ON

Price OD

AR OD

TR DONF

TC KONL

Profit DKLF