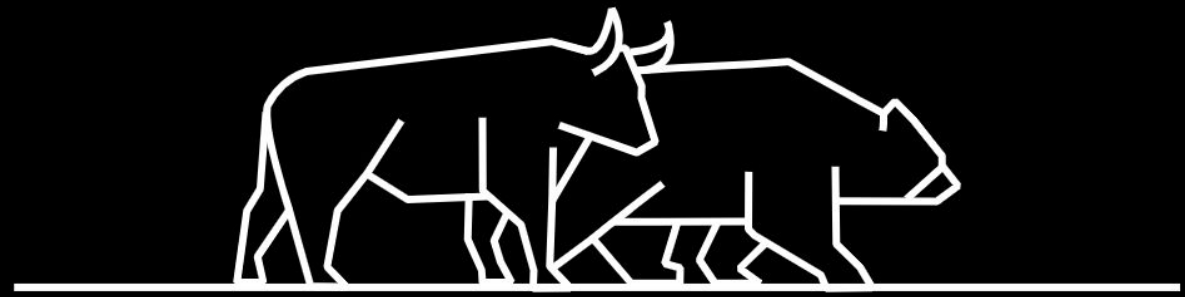


ECON104 TUTORIAL EXAM

Thursday 23rd of October 1-2pm
In Rehua 002

FINAL EXAM INFORMATION (2025)

- Term Two Content
- 20 marks multichoice
- 40 marks short answer

THE INVESTMENT SOCIETY

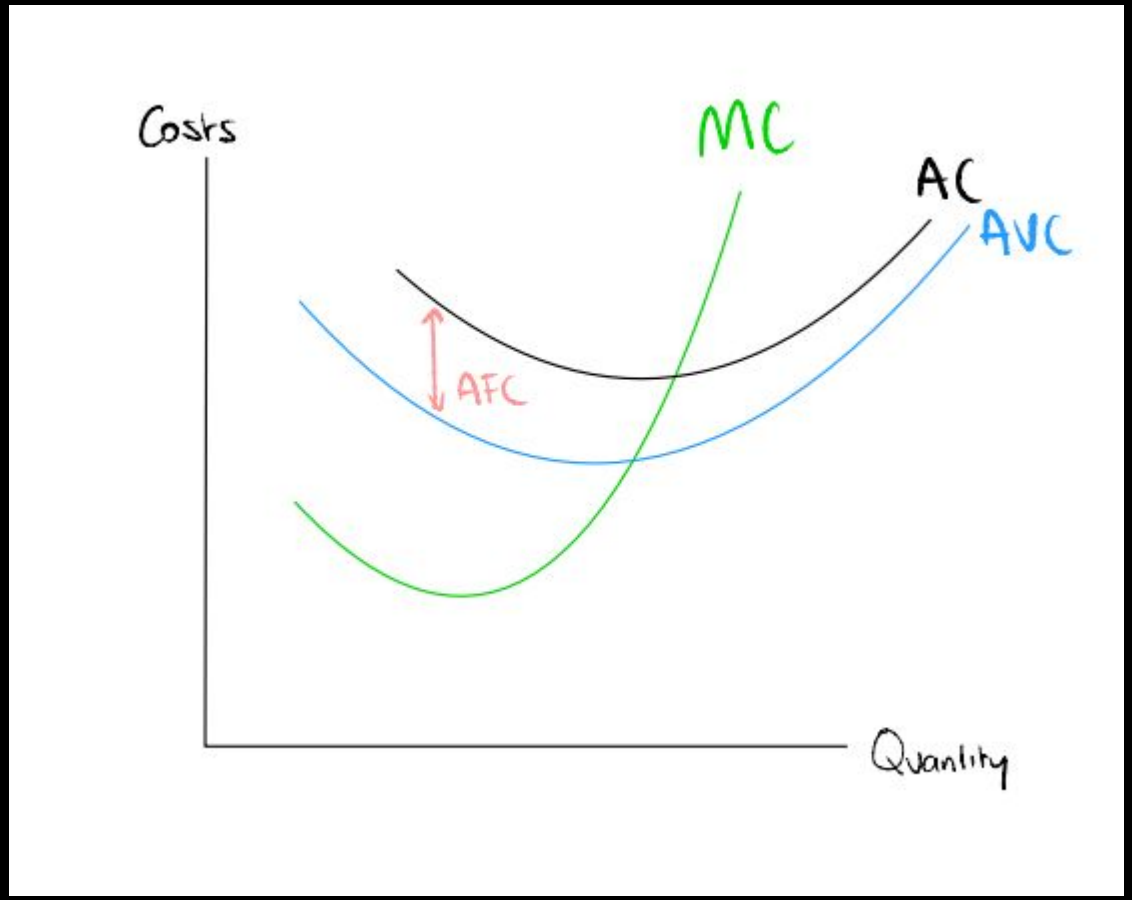
OVERVIEW – TERM 2

- Cost Curves
  - Profit levels
- Market Structures / Marginal Analysis
  - Perfect Competition
  - Monopolies
- Game Theory
- Price discrimination

THE INVESTMENT SOCIETY

Economic costs

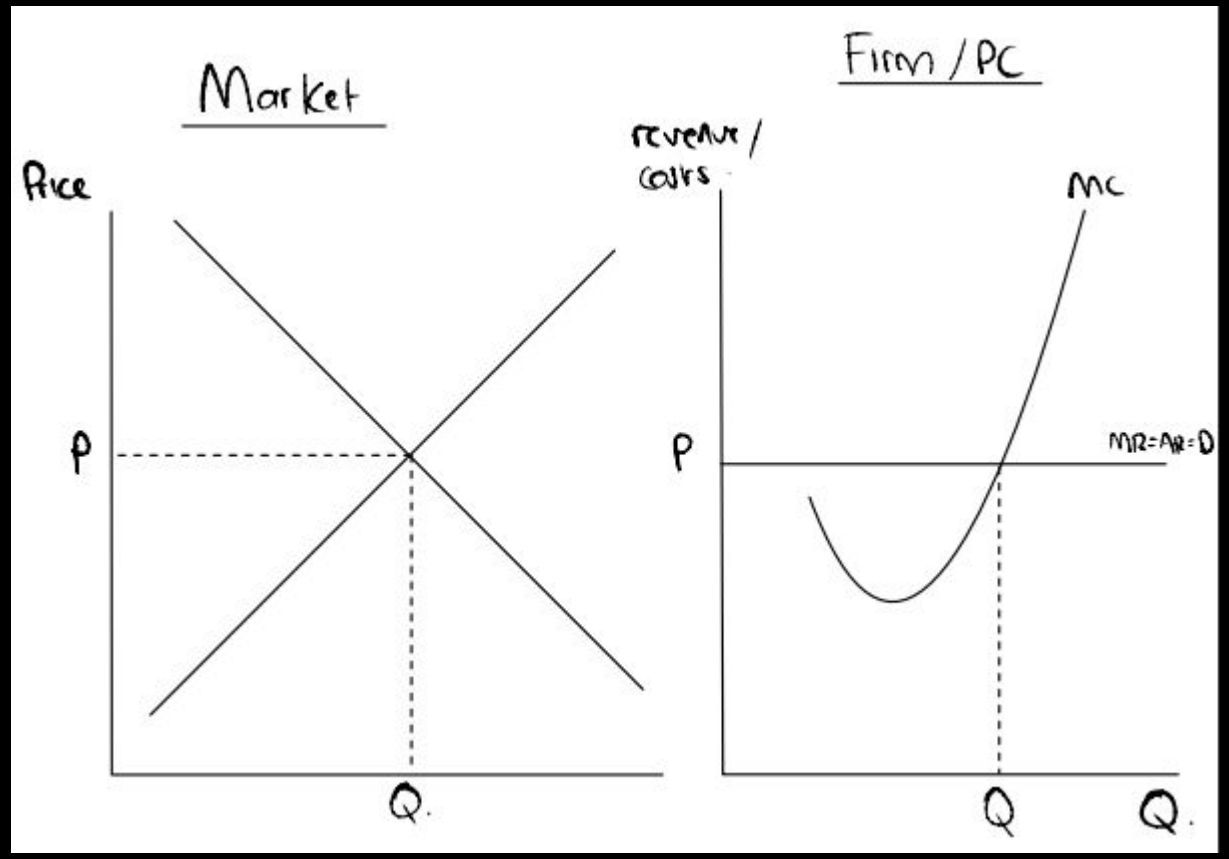
- **Marginal cost curve**: the cost to produce one extra unit
- **Average cost curve**: total cost/quantity
- **Average variable cost curve:** total variable costs/quantity
- An increase in fixed costs only increases AC
- An increase in variable costs increase, AC, AVC and MC



Perfect competition

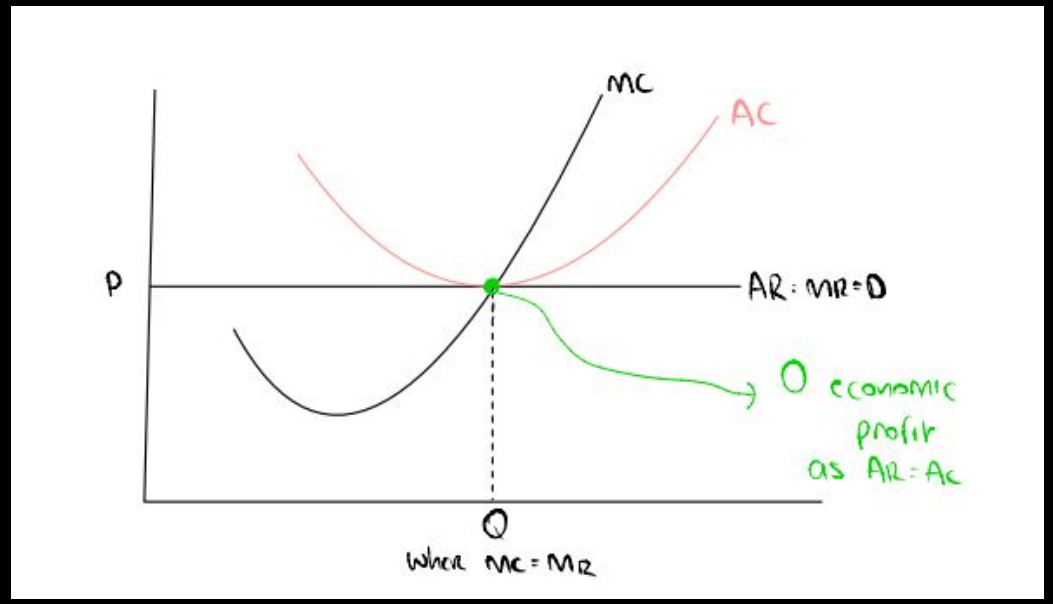
Characteristics

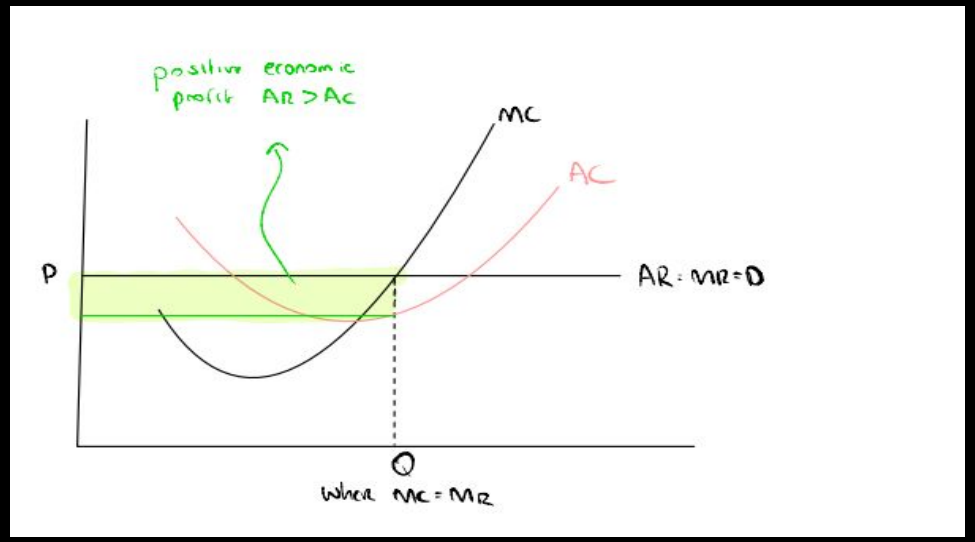
- Many sellers (lots of small firms)
- Many buyers (able to sell all of your product)
- Homogeneous products (all identical)
- Perfect information (both buyers and sellers know everything, no competitive advantage)
- No barriers to entry/exit (can move into and out of the market with ease)

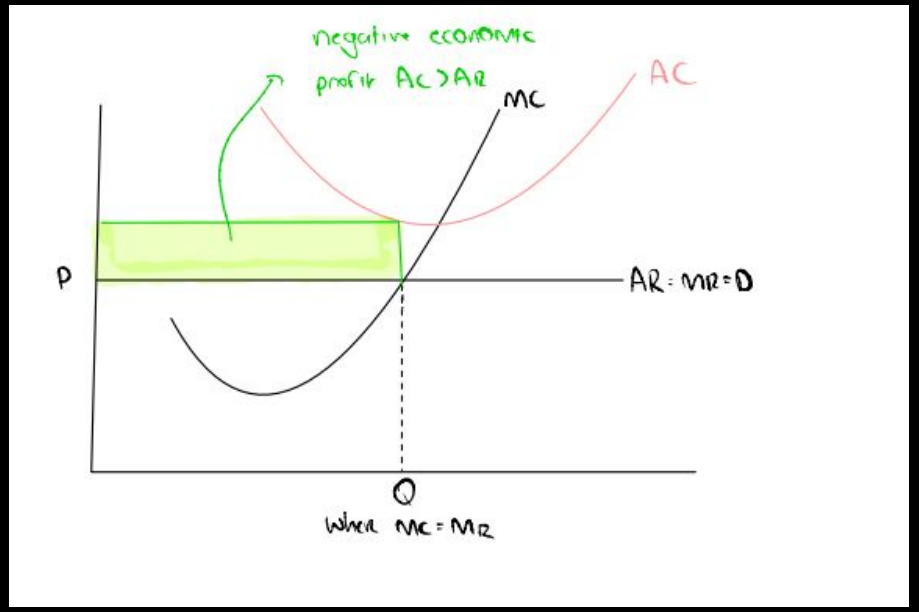


Why is the location where marginal revenue is equal to marginal cost the profit maximising location?

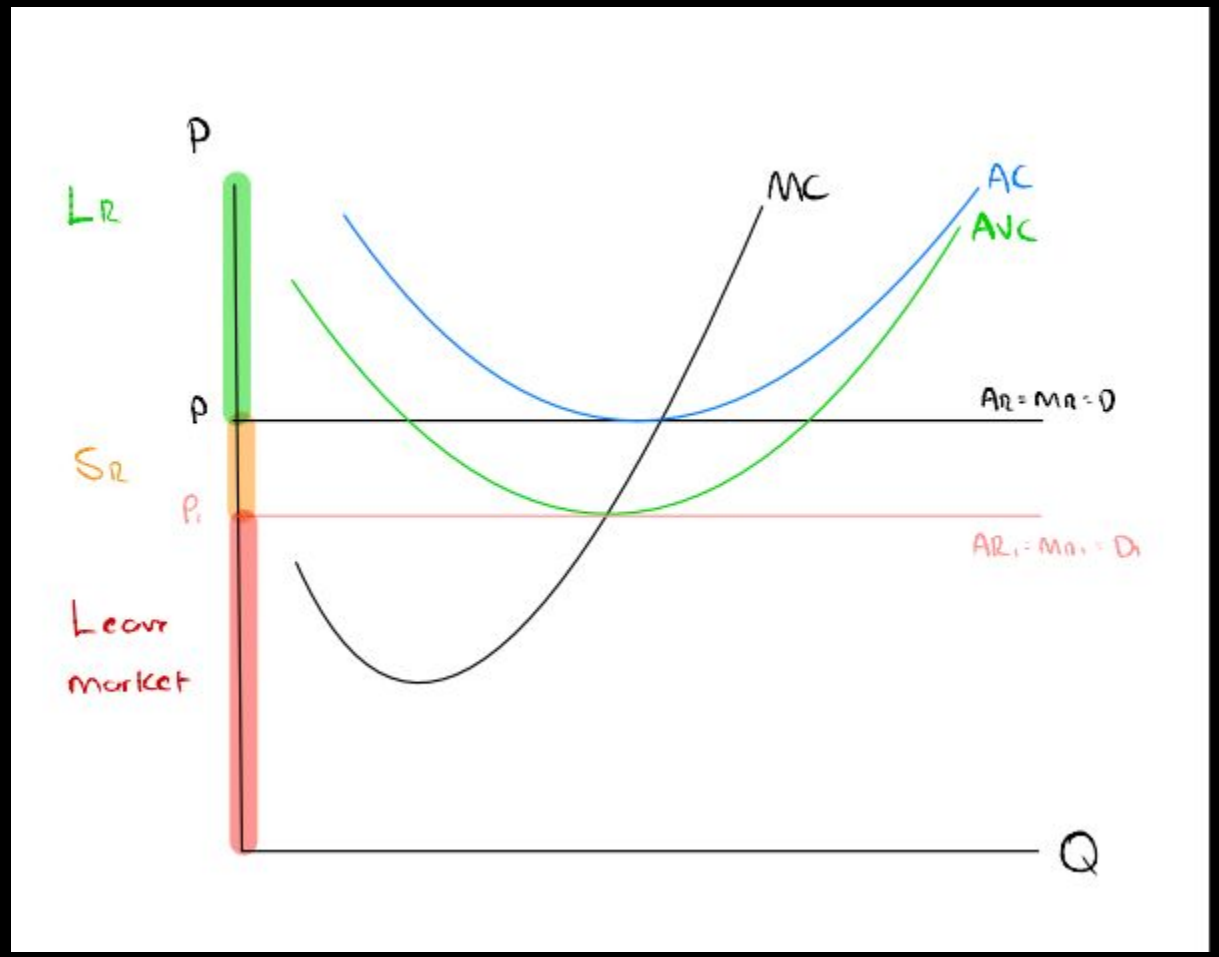
Perfect competition - profits







Breakeven/shutdown points



At any price above P, firm is making economic profit so should stay in market both short and long term.

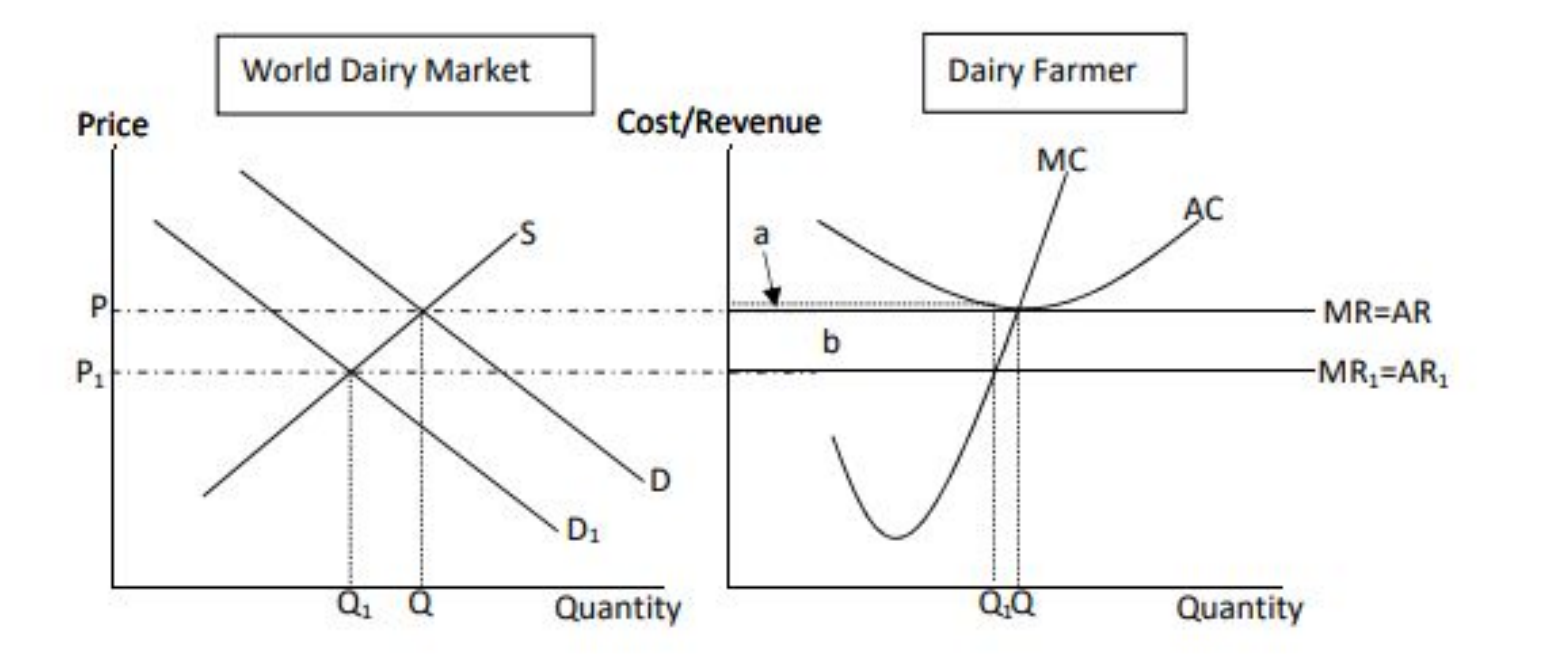
Breakeven point: AC = AR

At any price between P1 and P, firm is covering all of their variable costs with some revenue left over to cover their fixed costs. So should stay in the market short term to pay off fixed costs, but as still making negative economic profit will leave market in the long term.

Shutdown point: AVC = AR

At any price below P1 the firm should leave the market as they will not being covering all their variable costs or any of their fixed costs, so would be better off leaving the market immediately and paying their fixed costs.

Perfect competition return to zero economic profit



(d) Explain (do not draw a diagram) how the marginal dairy farm would return to zero economic profit in the long run, assuming costs do not change. **(5 marks)**

1. What is the type of profit being earnt?
2. What will happen to these firms that are earning these economic losses?
3. What does this do to the supply in the market?
4. What effect does this have on the market price?
5. What does this do to the individual firms MR and AR curve?
6. Is the firm still at profit maximising quantity?

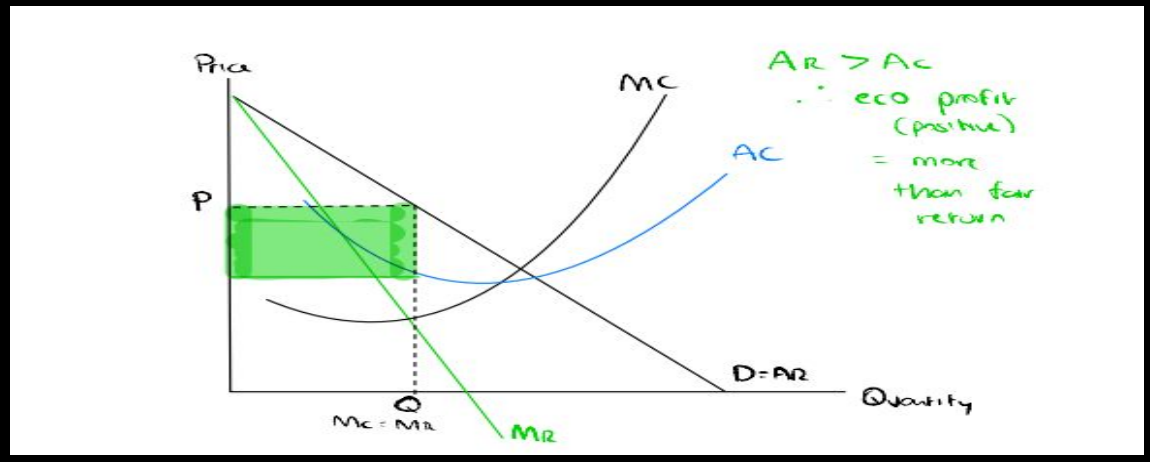
Monopoly

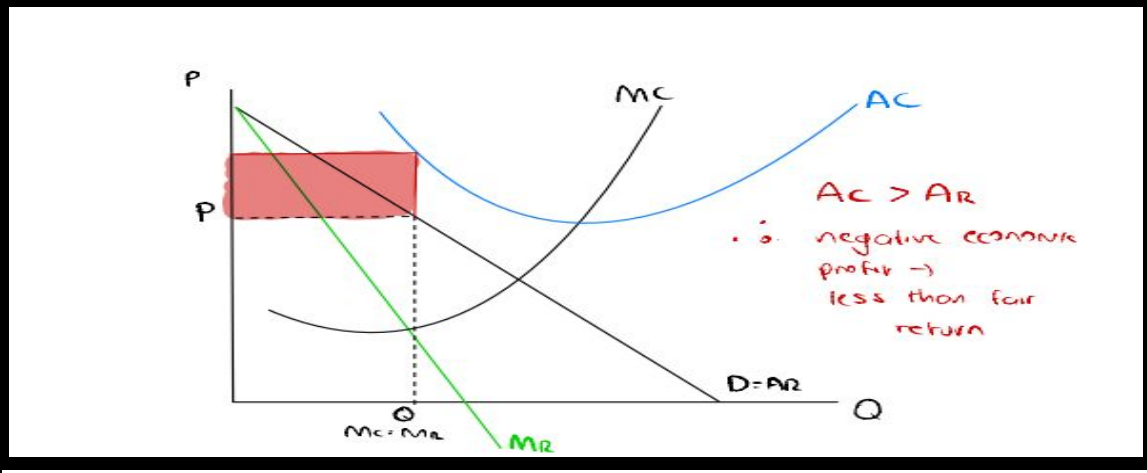
Characteristics

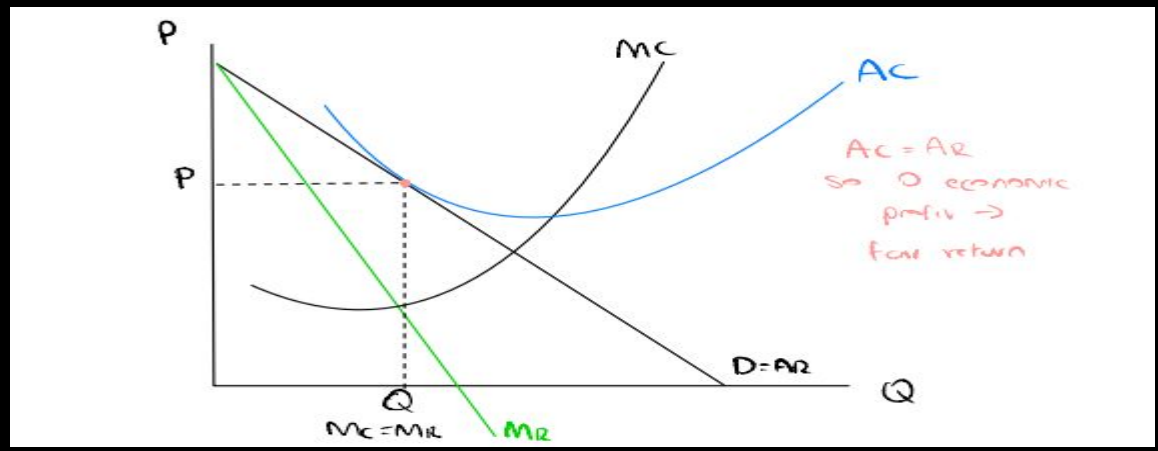
- One seller
- No of few close substitutes
- High barriers to entry for other firms
- Able to dictate either price or quantity

<u>Key notes:</u>

- Different MR and AR curves, both downward sloping
- MR will intersect halfway of AR
- Due to high barriers to entry, can maintain any type of profit in both short and long run
- Can work out profit maximising quantity the same way as perfect competition (MR = MC)







QUESTION

Question Two

(a)

(i) Copy the set of axis below into your answer booklets and show a profit maximising monopolist making positive economic profit. **(6 marks)**

THE INVESTMENT SOCIETY

QUESTION

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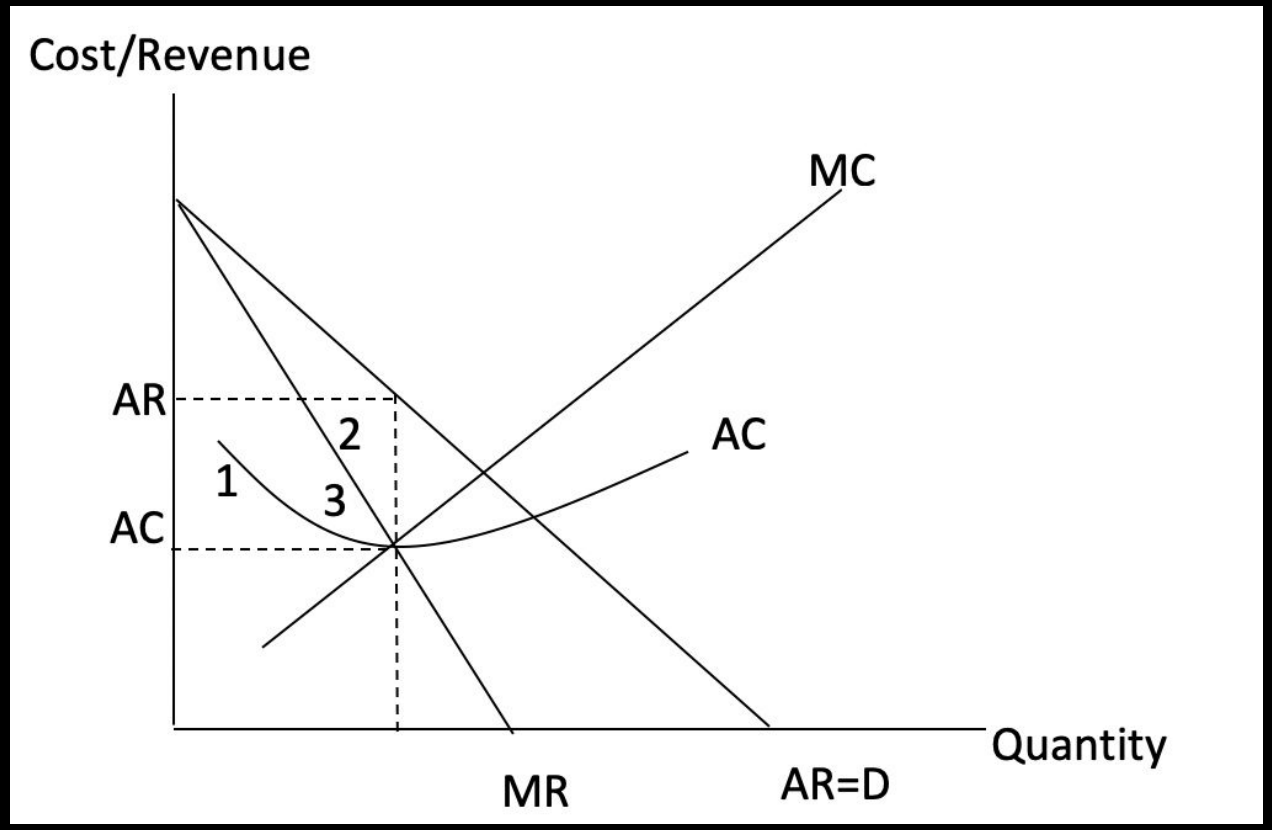
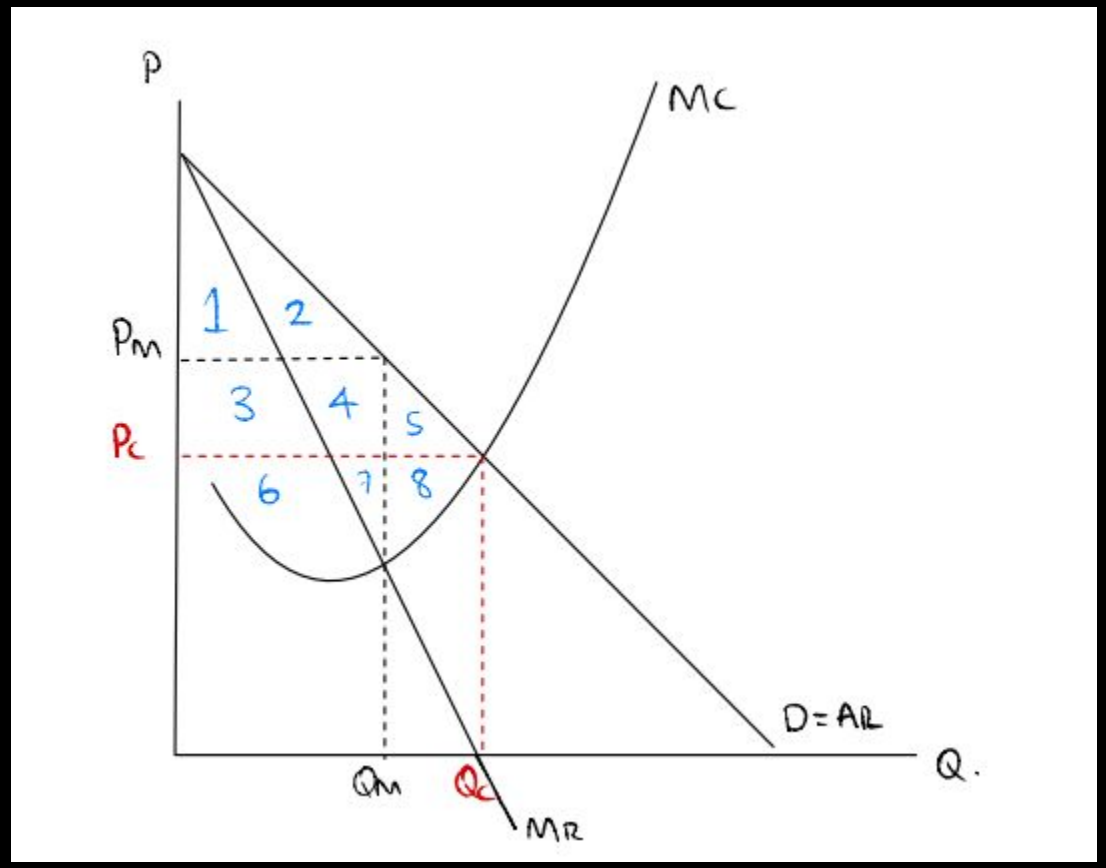


Mark Breakdown

- AR drawn and labelled correctly **(1/2 mark)**
- MR drawn and labelled correctly **(1/2 mark)**
- MR x-axis intercept halfway between origin and AR curve intercept **(1/2 mark)**
- AC drawn and labelled correctly **(1/2 mark)**
- MC drawn and labelled correctly **(1/2 mark)**
- MC cuts AC at its lowest point **(1/2 mark)**
- AR at Q correctly identified on vertical axis **(1/2 mark)**
- AC at Q correctly identified on vertical axis **(1/2 mark)**
- Positive economic profit of areas 1, 2 and 3 correctly identified **(1 mark)** and labelled **(1 mark)**

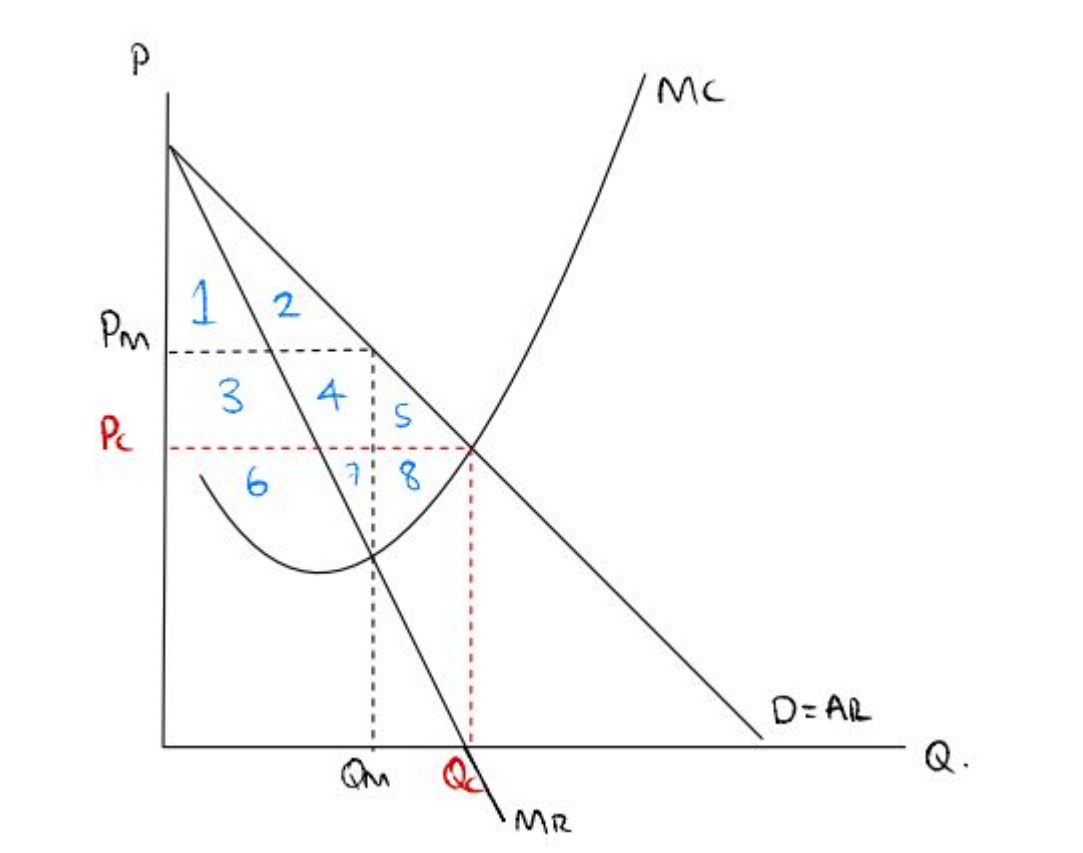
THE INVESTMENT SOCIETY

The efficiency of a Monopoly



	Competitive	Monopoly
Price	Pc	
Quantity	Qc	
CS		
PS		
Total surplus		
Deadweight loss		

Monopoly compared to Perfect competition



	Competitive	Monopoly	Change
Price	Pc	Pm	
Quantity	Qc	Qm	
CS	1,2,3,4,5	1,2	-(3,4,5)
PS	6,7,8	3,4,6,7	3,4 (-8)
Total surplus	1,2,3,4,5,6,7,8	1,2,3,4,6,7	-(5,8)
Deadweight loss		5,8	

Game theory

Dominant strategy: where a player will do this option regardless of what the other player does

Nash equilibrium: Where neither person has an incentive to change their behaviour given the actions of the other

GAME THEORY QUESTION

Assume that Firm A and Firm B are both considering whether to use non-price competition or start a price war. The following pay-off matrix illustrates the profits (in $M's) available to both firms arising from their joint actions. Firm A's profits are written first.

		Firm B	
		Non-price Competition	*Price War*
Firm A	*Non-price Competition*	(7, 7)	(2, 8)
	Price War	(8, 2)	(3, 3)

(ii) Explain what a dominant strategy is and identify any dominant strategies that exist in the matrix. **(3 marks)**

(iii) Which cell in the matrix will be the market result assuming no collusion between the firms? **(1 mark)**

THE INVESTMENT SOCIETY

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A dominant strategy is one a firm plays regardless of the actions of the other player. Firm A has a dominant strategy of price war. Firm B has a dominant strategy of price war.

THE INVESTMENT SOCIETY

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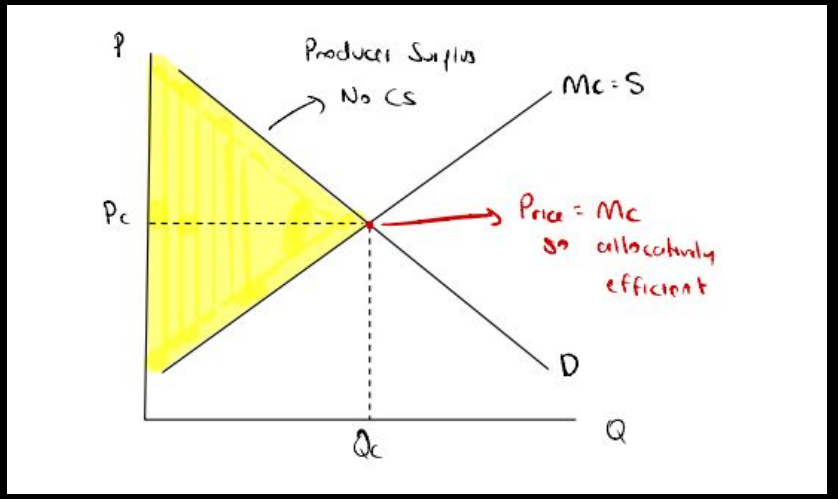
(iii) Which cell in the matrix will be the market result assuming no collusion between the firms? **(1 mark)**

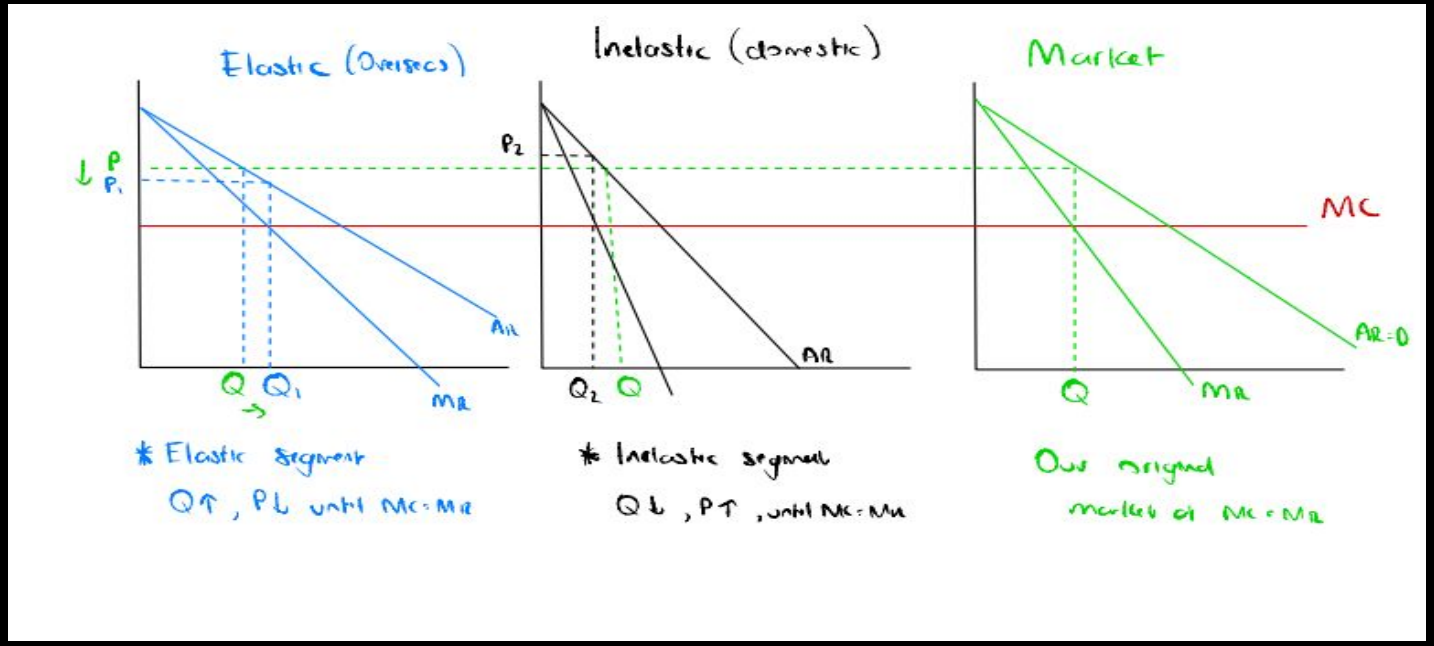
(price war, price war) or (3,3) or bottom right cell

THE INVESTMENT SOCIETY

Price discrimination

- First degree: each person is charged their reservation price
- Second degree: discounts given based on bulk purchasing
- Third degree: market is segmented and charged based on elasticity





QUESTIONS?

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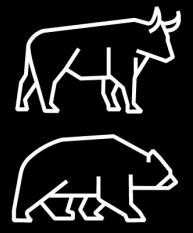

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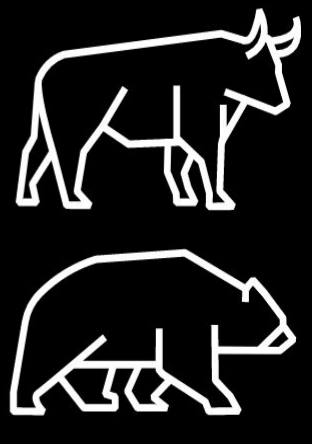

THANK YOU AND GOOD LUCK!