	Perfect Competition		Monopolistic Competition		Competitive Oligopoly		Monopoly/Collusive Oligopoly	
Number of Sellers and Buyers	Very Many Sellers	Each seller has <u>insignificant market share</u> ⇒ <u>insignificant market power</u> <u>Price taker</u>: price and output they set is determined by changes in demand and supply ● Individual demand curve d_{PC} is <u>perfectly price elastic</u> i.e. |PED| = ∞ due to products being <u>perfect substitutes</u> ○ Increase in price leads to losing all of its market share; No incentive to decrease its price as it can sell all its output at market price. If the firm changes its price, TR falls. ● $d_{PC} = AR_{PC} = MR_{PC} = P_{PC}$	Many Sellers	Each firm has <u>small market share</u> ⇒ <u>limited market power</u> <u>Price setter</u>: is able to change its price without losing all of its customers (though it will lose a large proportion) ● Individual demand curve d_{MC} is downward sloping and <u>price elastic</u> i.e. |PED| > 1 due to competitor firms' products being <u>relatively close substitutes</u> ○ Decrease in price leads to proportionately greater increase in quantity (vice versa) demanded as consumers will buy the cheapest of the substitutes in consumption $d_M = AR_M = P_M = 2MR_M$ (the MR curve is twice as steep as the AR curve)	A few Dominant Sellers	Each firm has <u>high market share</u> ⇒ <u>high market power</u> ⇒ <u>price setter</u> ⇒ firms decisions significantly affect rival firms ⇒ <u>mutual interdependence</u> ⇒ <u>price rigidity</u> ● <u>Kinked individual demand curve</u> D_o due to firms selling <u>relatively close substitutes</u> ○ |PED| > 1 above P_o: Increase in price will not be followed by rival firms as most customers will switch to cheaper substitutes sold by rival firms, leading to proportionately greater loss in quantity demanded ○ |PED| < 1 below P_o: Decrease in price will be followed by rival firms to minimise loss in market share, leading to proportionately smaller increase in quantity demanded ● MR curve has a discontinuous section ○ Any slight movement in the MC curve is unlikely to result in a change in price	Sole Seller	The monopolist has <u>complete market share</u> ⇒ <u>high market power</u> <u>Price setter</u>: price **<u>OR</u>** output of the market is set by the monopolist (the monopolist can NEVER set both output and price.) ● The monopolist's demand curve d_M is the <u>industry's demand curve</u> and is <u>price inelastic</u> i.e. |PED| < 1 due to a lack of <u>available close substitutes</u> ○ Increasing its price leads to proportionately lower fall in quantity demanded (vice versa) as consumers cannot turn to a close substitute $d_M = AR_M = P_M = 2MR_M$ (the MR curve is twice as steep as the AR curve)
Nature of Good	Homogeneous		**Slightly** Differentiated		Differentiated or Homogeneous		Unique	
Level of Barriers to Entry	None		Low		High		High	
Level of Information	Perfect		Imperfect		Imperfect		Imperfect	
Strategies	Nil		Product Development, Branding, Advertising, Price War, Joint Ventures, 3DPD, Relocation, Cognitive Bias Strategy		Product Development, Product Innovation, Branding, Advertising, Collusion, Merger, Predatory Pricing, Limit Pricing, Price War, Joint Ventures, Process Innovation, 3DPD, Diversification, Relocation, Cognitive Bias Strategy		Product Development, Product Innovation, Branding, Advertising, Acquisitions, Predatory Pricing, Limit Pricing, Joint Ventures, Process Innovation, 3DPD, Diversification, Relocation, Cognitive Bias Strategy	
Profits (Firms)	Normal Profits: If firms are making supernormal profits, the lack of barriers to entry allows other firms to compete on equal basis, increasing supply and decreasing market share and hence average revenue until AR = AC. If firms are making subnormal profit, they will eventually be unable to sustain losses and shut down, decreasing supply and increasing market share of firms which sustain themselves until AR = AC. Thus, in the long run, PC firms produce at the minimum level of revenue allowing them to sustain themselves.		Normal Profits: (Same explanation as PC firms) If firms are making supernormal profits, new firms will enter the industry, reducing each firm's market share and AR falls. Moreover, there is greater availability of close substitutes in the market so demand for the individual firm's goods becomes more price elastic. Thus, in the long run, demand will fall and become more price elastic until AC = AR.		Supernormal Profits: Assuming the oligopolist makes supernormal profits in the short run by setting high prices and restricting output, it will continue to make supernormal profit in the long run due to high barriers to entry preventing new firms from competing on equal basis for a share of the profits.		Supernormal Profits: Assuming the monopolist makes supernormal profits in the short run by setting high prices and restricting output, it will continue to make supernormal profit in the long run due to high barriers to entry preventing new firms from competing on equal basis for a share of the profits.	
Variety (Consumer)	None		High		Some		None	

Innovation/Quality (Firms)	Unwilling and unable	Willing but unable	Willing and able	May be willing, definitely able
Level of Consumer Welfare/Equity (Consumer)	Maximum	High	Low	Lowest
Efficiency (Firms and Consumers)	Allocatively Efficient, Productively Efficient, Dynamically Inefficient	Almost Allocatively Efficient, Productively Efficient, Dynamically Inefficient	Allocatively Inefficient, Potentially Productively Inefficient, Dynamically Efficient	Allocatively Inefficient, Potentially Productively Inefficient, Dynamically Efficient

Market characteristics in least words possible

1) In a Monopoly/Collusive Oligopoly, **imperfect information** and **high barriers to entry** allows the monopolist to be the **sole seller** of a **unique product**.
2) In a Competitive Oligopoly, **imperfect information** and **high barriers to entry** allows the existence of **a few dominant firms** selling **differentiated products**.
3) In a Monopolistically Competitive market, **imperfect information** and **low barriers to entry** allows the existence of **many firms** selling **differentiated products**.
4) In a Perfectly Competitive market, **perfect information** and the **absence of barriers to entry** allows the existence of **many firms** selling **homogeneous products**.
    a) 'Slightly Differentiated' means close substitutes. After all, they are in the same market selling the same type of product. 'Homogenous' means perfect substitutes – In PC or Collusive Oligopoly. This means they are selling literally the same goods. There is no difference whatsoever.

General Paragraph structure

When writing paragraphs, use this framework.

Characteristics/Market Changes (Cause) → **Behaviour** (Response/Effect) → **Performance** (Effect)

- Behaviour can be split into **natural economic forces** and **firm strategies**
    - Firm strategies can be split into **pricing** and **non-pricing** strategies

*__Note:__ Depending on the question, sometimes some components can be left out. (e.g. Core EQ 1a which only asked for shut-down conditions. Behaviour can be left out because the only behaviour concept that we are looking at is firms are profit-maximising.) **BUT MUST ALWAYS TALK ABOUT LONG RUN PERFORMANCE**

Key words/phrases

1) A **profit-maximising** firm will produce at the quantity Q_0 where **MR = MC**, resulting in the firm making **supernormal/normal/subnormal profit** i.e. **AR > AC/AR = AC AR < AC**
2) **Restricting output to set high prices**
3) The greater the demand relative to the average cost, the more likely a firm is to make supernormal profit

How to draw market diagram (ē general one)

1. DRAW THE AR CURVE

2. DRAW THE MR CURVE

3. DRAW THE MC CURVE

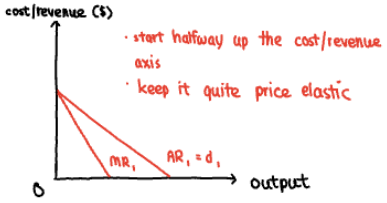
4. LOCATE THE PRICE & OUTPUT

5. DRAW AC CURVE BASED ON PROFIT

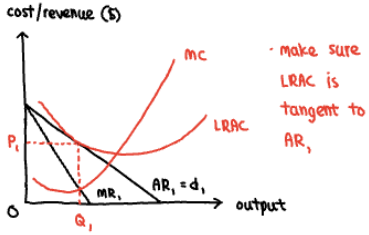
e.g. supernormal profit

How to draw MC Equilibrium

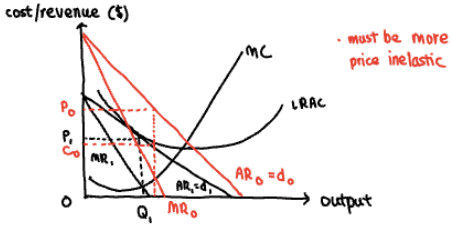
1. Draw the long run AR & MR

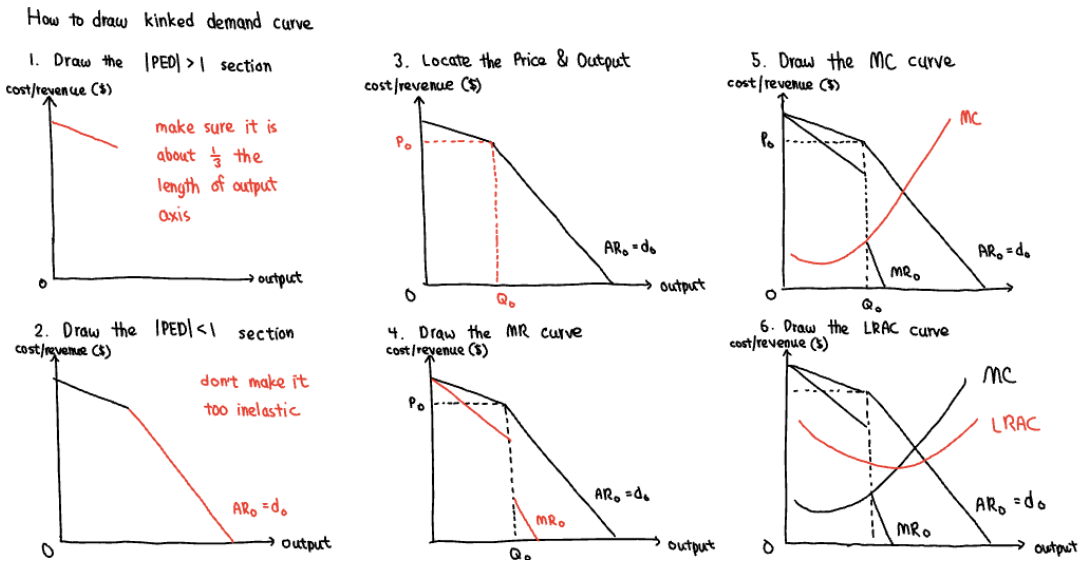


2. Draw the MC curve, then the AC curve



3. Draw the short run AR & MR





Shut-Down Condition

1. A **profit-maximising** firm seeks to **minimise costs** because profit is the difference between total cost and total revenue.
2. If the firm makes subnormal profits in the **long run**, i.e. AC > AR, it will shut down. But if a firm makes subnormal profits in the short run, it may not immediately shut down, depending on its AVC.
3. If AR ≥ AVC, by continuing production, the TR generated can cover the TVC and part of the TFC and the loss incurred is less than TFC. By shutting down, the firm must incur the full TFC since it has no revenue. Thus, the firm will choose to continue production in the short run to minimise cost.
4. If AR < AVC, by continuing production, the TR generated cannot cover the TVC and the loss incurred includes TFC and part of the TVC. By shutting down, the firm incurs only TFC since there is no variable cost if production is ceased. Thus, the firm will choose to shut down in the short run to minimise cost.