



MICROECONOMICS Ultimate Cheat Sheet

■ Key Equations

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|---|---|
| <ol style="list-style-type: none"> 1. Utility Maximizing Rule: 2. Percent Change = 3. Elasticity Demand/Supply = 4. Cross-Price Elasticity = 5. Income Elasticity = 6. Consumer Surplus = 7. Marginal Product = 8. Marginal Cost = 9. Total Cost = | <ol style="list-style-type: none"> 10. Average Total Cost = 11. Average Variable Cost = 12. Average Fixed Cost = 13. Total Revenue = 14. Profit = 15. Profit Maximizing Rule: 16. Least Cost Rule: 17. Marginal Revenue Product = 18. Marginal Factor Cost = |
|---|---|

■ Details to Remember

19. Comparative advantage- A country should specialize, if they have a lower than another country.
20. Elasticity-
 - When price elasticity of demand coefficient is greater than 1, the demand is .
 - When price elasticity of demand coefficient is less than 1, the demand is .
 - When price elasticity of demand coefficient is zero, the demand is .
 - When the cross-price elasticity is positive, the two goods are .
 - When the income elasticity is positive, the product is a good.
21. Total revenue test- When demand is inelastic, an increase in the price will the total revenue.
22. Double shifts- When two curves shift at the same time, either price or quantity will be .
23. Price controls- To be binding, price ceilings go equilibrium and price floors go equilibrium.
24. Costs- Use marginal cost to determine the . Use average total cost to calculate .
25. Perfect competition- In the product market, marginal revenue is horizontal because firms are .
26. Shut-down rule- Firms should shut down if the price falls below the .
27. Monopolies- Price is higher and output is lower than competitive markets causing .
28. Factor markets- In competitive markets, marginal factor cost is horizontal because firms are .
29. Government Regulation- A lump sum tax does not change quantity because it only affects the .
30. Negative externalities- The free market makes too much output where the MSC is than MSB.
31. Positive externalities- The free market doesn't make enough output where the MSC is than MSB.



■ Essential Graphs

Production Possibilities Curve	Supply and Demand (CS + PS)	Price Ceiling (CS, PS, DWL)
Tax (Tax Revenue and DWL)	Perfect Competition (Firm, Profit)	Perfect Competition (Firm, Long-run)
Imperfect Comp. Elastic and Inelastic Range	Monopoly (Profit, DWL)	Monopolistic Comp (Long-run)
Perfectly Competitive Labor (Firm)	Negative Production Externality (DWL)	Positive Consumption Externality (DWL)



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■ **Additional Graphs and Concepts**

Supply and Demand (Trade)	MC, ATC, AVC (Shut Down)	Total, Variable, & Fixed Cost																					
Perfect Competition (Loss)	<p style="text-align: center;">Payoff Matrix (Dominant Strategy, Nash Equilibrium) Firm A</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" rowspan="2"></th> <th colspan="2">Charge High Price</th> <th colspan="2">Charge Low Price</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <th rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">Firm B</th> <th>Charge High Price</th> <td style="text-align: center;">\$1200</td> <td style="text-align: center;">\$800</td> <td style="text-align: center;">\$700</td> <td style="text-align: center;">\$600</td> </tr> <tr> <th>Charge Low Price</th> <td style="text-align: center;">\$1000</td> <td style="text-align: center;">\$900</td> <td style="text-align: center;">\$1000</td> <td style="text-align: center;">\$500</td> </tr> </tbody> </table>				Charge High Price		Charge Low Price						Firm B	Charge High Price	\$1200	\$800	\$700	\$600	Charge Low Price	\$1000	\$900	\$1000	\$500
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Firm B	Charge High Price	\$1200	\$800	\$700	\$600																		
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Monopoly (Loss)	Perfect Price Discrimination (Profit)	Natural Monopoly																					
Monopsony	Negative Consumption Externality (DWL)	Positive Production Externality (DWL)																					