

Teaching Plan

Title	Monopoly – Price Searching (HKALE)
Instructional Objectives	<ul style="list-style-type: none"> ➤ To discover the profit maximizing price level is where $MR = MC$. ➤ To explain why $MR = MC$ for a firm in profit maximizing equilibrium. ➤ To describe the difference between price taking by a perfectly competitive firm and price searching by a monopoly.
Keywords and Concepts Illustrated	<ul style="list-style-type: none"> ➤ Monopoly ➤ Price searcher ➤ Marginal Cost ➤ Marginal Revenue
Pre-Game Preparation	<ul style="list-style-type: none"> ➤ Since each student has his/her own cost table (and thus his/her own solution) in this game, teacher has to print out all the 28 sets of student worksheets as well as the answers. Should the number exceeds 28, teacher can photocopy several sets to make up the number.
Needed Time	➤ A double lesson period, 80 minutes in total

Sessions	Details	Time Spent
Activity/ Announcement	<ol style="list-style-type: none"> 1 T: Suppose you have just set up your own business to sell some goods or services, how will you set your product/service price? 2 (Teacher may like to review with students the concept of price searching/taking in different market structures if such concept has been taught). 3 T: We are going to examine how a monopoly sets its selling price today. Each of you will be a monopolist, facing your own cost table. Since you are new to this industry, you do not have any demand information. So you are trying to determine the quantity to supply and the price to charge in attempt to earn the highest possible level of profits. 4 Teacher distributes to each student a Student Worksheet (refer to the Excel file provided). 5 T: Let's have a look at your worksheet. You see there is a code on your sheet. Since every one of you have your own set of cost data, so this code will be your ID in this game. 	15 minutes

	<p>6 T: As I said before, you know only your production costs in this game. They are listed on the left table, “Cost Table”. Spend a few minutes to compute the missing data first. They will be very useful for you in this game.</p> <p>7 Allow 5 minutes for students to compute the data. You may need to remind students how to calculate AC and MC.</p> <p>8 (After 5 minutes) T: You will decide and write down the price and quantity you offer for sale on the “Price” & “Quantity Offered” column of bottom table and bring the worksheet to me. I, as the market researcher, will tell you the numbers of units demanded at that price. You should record the information on “Quantity Demanded” and calculate the “Total Revenue”.</p> <p>9 T: In order to compute the “Profit” of that level of quantity demanded, you need to refer to the “Total Cost” that you need to incur to produce that level. This information is very important for you to determine demand conditions. You can then record the demand conditions on the “Demand Estimation & Revenue” table.</p> <p>10 T: You will have 10 periods for you to search for the profit maximizing level of price and quantity sold. At the end of the 10 periods, the one who earns the highest profit wins.</p> <p>11 T: Since you are not provided with information about customer demand and you have to search for this information, the first 5 periods will be the trial periods and the profit/loss you make in these 5 periods do not count in the calculation of profit you have earned at the end of the 10th round.</p> <p>12 T: Please do not share information about your individual market conditions, your particular price and quantity decisions, or your profits. Each of you have different markets, so sharing information is potentially dangerous.</p> <p>13 There is no fix time for each period. You can just wait</p>	<p>5 minutes</p> <p>15 minutes</p>
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	<p>in the front for students to come to get their “Quantity Demanded” data. Go on with the game until everyone has finished their 10 periods.</p> <p>14 Discussion:</p> <p><i>14.1 Can you observe anything special on the MC and MR when your profit reaches the maximum? Can you explain why this is so? (MC = MR when the profit reaches its maximum. MC is the extra cost of producing one more unit. MR is the extra revenue received from selling one more unit. If MC of the last unit produced is less (more) than the MR, one more unit produced and sold would add more revenue than cost (cost than revenue), so profit will increase (decrease)).</i></p> <p>14.2 Explain your reasoning when using the trial rounds to search for the demand schedule. Would you have done anything differently when looking back?</p> <p>15 Reward the one who earns the highest profit from period 6 to 10.</p>	
Definitions	<ul style="list-style-type: none"> ➤ Monopoly – a situation in which a single seller of a good faces no competition from close substitutes (Lam, 1998: 171). ➤ Price searcher – a seller who has sufficient market power to set the selling price higher (and sell less), or lower (and sell more) (Lam, 1998: 169). ➤ Marginal Cost – the increase in total cost which results from raising the rate of production by one unit (Lam, 1998: 138). ➤ Marginal Revenue – the change in total revenue resulting from an extra unit of a good sold (Lam, 1998: 33). 	
Tools	<ul style="list-style-type: none"> ➤ Print enough Student Worksheet to each student ➤ Prize for the winner 	
Teacher’s Roles	<ul style="list-style-type: none"> ➤ The Market Researcher ➤ Facilitator 	
References	Source:	

	<p>➤ Yandell, D. 2002. Using Experiments, Cases, And Activities in the Classroom 2nd ed. (New Jersey: Prentice Hall).</p> <p>Definitions:</p> <p>➤ Lam, P. L. 1998. Advanced Level Macroeconomics 3rd ed. (Hong Kong: Macmillan Publishers).</p>	
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Appendix Materials for Teacher

An Excel file contains different sets of student worksheets and the answers.