EXPERIMENTAL ECONOMICS

LAB REPORT #3 by Group #_

Due Tuesday, February 25, 2025, at the beginning of your class.

Late submissions will NOT be accepted.

In this experiment, we simulated monopoly and duopoly (Cournot) markets (see the experimental instructions uploaded on Fenix). All participants were sellers playing with simulated buyers. In total there were 24 sellers. The below table summarizes the experiment:

Treaments	Market	# of markets	# of sellers/market	Matching	Number of rounds
1	Monopoly	24	1	-	8
2	Duopoly	12	2	Fixed	8

Each seller had to make a decision about the quantity to produce/sell. The quantity had to be between 0 and 13. The production costs were $1.00 for each unit produced. All units were sold at the same price, which depends on the total amount produced.

The demand function used in the experiment was the following: P = 13 - Q + random shock**.** Please disregard the random shock component for this lab report and consider: **P = 13 - Q**

Consider the first treatment, the monopoly condition.

1. Using the demand function above and the information about producer´s costs, fill the following table:

Quantity														
Price														
Monopolist Total Revenue														
Monopolist Total cost														
Monopolist Profit														
Marginal Revenue														
Marginal Cost														

2. If the monopolist is rational and money maximizer, what is the quantity she chooses to produce/sell?

3. If the market was *competitive*, i.e., demand equal to supply, what would be the equilibrium quantity and price? Hint: Remember that the supply function is derived from suppliers' costs.

Now let's look to what actually happened in the experiment. For this lab report you can use the file "data_experiment_3.xlsx", located in Fenix.

Consider the monopoly case (treatment 1), fill in the following table

Round	Total earnings	Total earnings/maximum possible total earnings
1		
2		
3		
4		
5		
6		
7		
8		

4. Represent graphically the average price in the experiment PER ROUND (price in the Y-axis and ROUND in the X-axis). Compare the average price in the monopoly and in the duopoly case (treatment 1 and treatment 2). Briefly and intuitively explain the difference.

5. Theorethically, what would you expect to happen in treatment 2 if there was random matching instead of fixed matching? Briefly and intuitively express your thoughts.