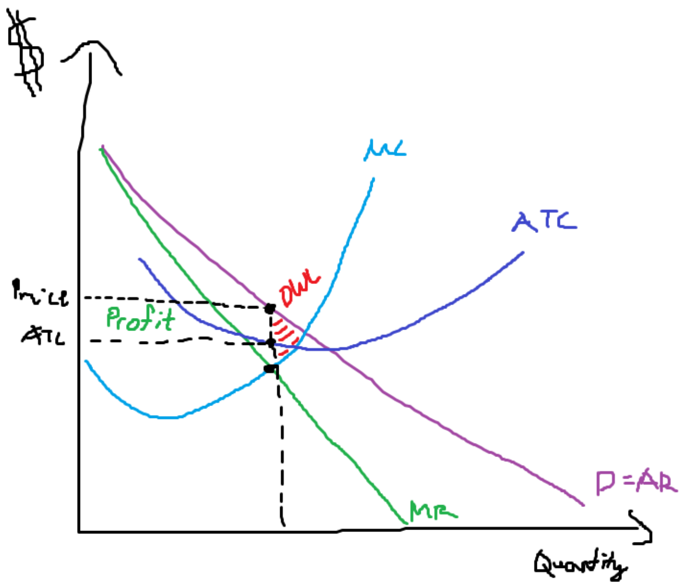
Graphing Monopolistic Competition – Please fully answer the questions below (drawing graphs when specified) and submit your completed assignment when finished.

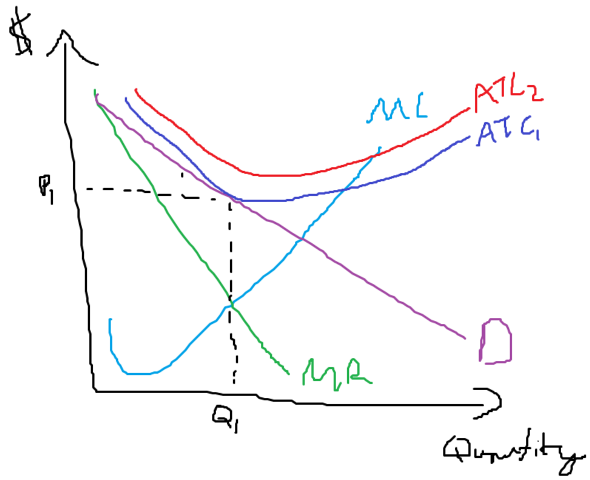
1. Consider Caroline's Closet, which sells boutique clothing in a busy mall in a major city. The mall contains several other clothing boutiques.
    a. Draw the marginal cost, average total cost, demand and marginal revenue for Caroline's Closet, assuming Caroline's current profit-maximizing price is greater than average total cost. Label the areas representing profit and deadweight loss.



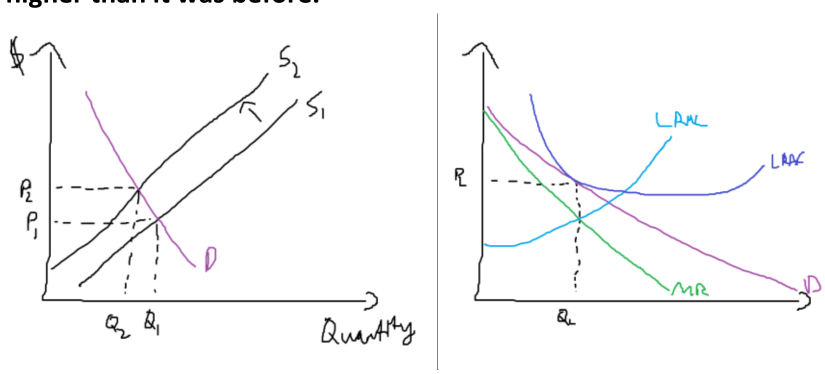
    b. Explain what would occur in the long run in this market (entry or exit). How would demand at Caroline's be impacted and why? **With present positive profit, entry of firms into the market will occur, decreasing demand, until long-run economic profit is zero. Entry of more firms will decrease demand at each firm (including Caroline's) until price equals average total cost.**

2. Suppose the government levies a lump sum tax on firms operating in a monopolistically competitive market that is currently in long run equilibrium.
    a. What will be the short run impact of this tax at the firm? Draw the graph of a representative firm. **A lump sum tax will be an addition to the total fixed cost. This will push average total cost up, with that effect spreading out over a larger number of products (average fixed cost). As the firm starts out in long run equilibrium (economic profit is already 0), pushing up ATC now means that at an unchanged price and**

quantity, economic profit will be negative. Profits decrease, losses increase.



b. What will happen to the equilibrium price in the market and the number of firms in the market? Draw the graph of the market showing how it adjusts. **In the long run, firms will likely exit the market, as if it was at long run equilibrium before, pushing up ATC with a lump sum tax will cause economic profit in the long run to be negative, necessitating the exit of some firms until it returns to zero. Equilibrium price will be higher than it was before.**



3. Suppose firms operating in the monopolistically competitive snack food market adopt a new food processing technology that decreases average total cost at the firms, while marginal cost remains unchanged.
   a. How will the number of firms operating in the market be impacted? Why? **With decreased average total cost and unchanged marginal cost, profits at firms in the short run will increase. Where there are profits, firms will try to enter the market. In the long run, this means that more firms entering will push down demand at each firm overall, eventually bringing economic profit in the long run back to zero.**
   b. How will the quantity produced at a representative firm change? How will the quantity produced in the market change? **Representative firms will see demand and MR decrease, and quantity produced will also decrease an appropriate amount. Quantity produced in the market as a whole will increase.**

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c. How will equilibrium price in the market change? **Long run equilibrium has to see marginal cost at less than average total cost in monopolistic competition. With a decrease in ATC, the corresponding decrease in demand necessary to achieve long run equilibrium will mean the long run equilibrium price decreases.**