Wilf Csaplar Jr.   Economics 304   Homework #3   **Due Tuesday 2/7**

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type this assignment will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (15 points) According to the article below, online retail is one of the most profitable industries. Do you think that industry is more like a monopolistically competitive industry or an oligopoly? Explain your logic. Do you think the industry will remain profitable? Explain your logic.
https://www.yahoo.com/video/15-most-profitable-industries-world-173731858.html

2) (50 points) Suppose a Cournot-Nash industry has two firms producing identical products. Suppose the industry demand is given by $P = 180 - Q$ and each of the firms has identical cost curves of $TC_i = 5 + 30Q_i$. Use calculus to find the two firms' best response functions. Use that to find the equilibrium quantities and price. Draw the D/MC diagram for the industry and one firm at the equilibrium. Make sure you got a scale on both axes. State how you knew where each line is. Draw the two best response functions. State how you know which line is which best response function.

3) (30 points) Draw a AC/MC/D diagram for a monopolistically competitive firm making profits. Find the price and quantity. State how you knew they were making profits, and how you found the price and quantity. Illustrate what happens over time. Explain why the curve(s) moved as drawn. State how you knew where the curve(s) stopped moving.

4) (5 points) Why does the leading firm in the Von Stackelberg model makes more profits than the follower.