

The Last One!

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to follow these directions will cost you 1 point on the assignment and failure to type it will cost you 10 points.

Seniors who are taking comprehensives, will take Exam #4 on Friday, 4/15. I expect that it will be during the normal class time. (I still have to arrange this.) The material for the test will be the last part of Chapter 8.4 through page 376 in Chapter 9 plus the Cournot Model in the Appendix to Chapter 9. You can look at last year's review sheets, found on the page of old assignments to study for the exam.

1A) (35 points) Suppose an Cournot duopoly has an industry demand curve of $P = 100 - \frac{1}{2}Q$. Both firms have a constant marginal cost of \$10/unit. Derive one firm's best response function, a.k.a. reaction function. Show all work and briefly explain how you found it.

1B) (15 points) Draw the other firm's and find the equilibrium outputs and price. Show all work.

2) (25 points) Draw the "kinked demand curve." Explain why the curve looks as drawn. Derive the marginal revenue curve and explain how you got it. Explain why this curve will cause prices to be sticky.

3) (25 points) Draw the cartel's demand and marginal cost curve on one graph, and one firm's marginal cost curve and average total cost curve on a second diagram. Use them to explain why cartels fall apart.