Seminar Set 7 - Wed. 27 April

Question 1 - Exam 2014

Consider an industry consisting of $n > 2$ identical firms, each with a constant unit cost of production equal to $c > 0$. The product is homogeneous, and demand is given by the inverse demand function $P(Q) = a–Q$, where Q is total quantity supplied and $a > c$.

(1) Suppose that the firms compete in quantities. Find the equilibrium quantity offered by each firm.

(2) Suppose instead that the firms compete in prices. Find the equilibrium price offered by each firm.

(3) Suppose one of the firms in (2) makes an innovation that reduces its unit cost of production to $\hat{c}$, where $0 < \hat{c} < c$. Find a condition for this innovation to be non-drastic.

(4) Explain why the value of the innovation for the innovating firm in (3) is higher than if the firm had been a monopolist.

Question 2 – Make-up Exam 2014

Consider a market with network externalities among consumers.

(1) Explain what excess momentum and excess inertia are.

(2) Explain why, in such a market, one may experience both excess momentum and excess inertia among consumers when a new technology becomes available.