

Homework 7

Due December 5, 2017

Homework will be collected at the end of the lecture on the day it is due. Submissions in any other time or manner will be ignored. The maximum score is 100. Unprofessionally looking papers or unnamed or unstapled sheets or improperly labelled questions or bad handwriting will result to a penalty up to 50% at the discretion of the grader. Plagiarism will be prosecuted and perpetrators will need a score 125 out of 100 in the exam in order to pass the course.

1. Suppose that market demand is $P = a - Q$. The incumbent monopolist's total cost function is $C(q_M) = bq_M$, whereas the cost function of the only potential entrant is $C(q_E) = F + bq_E$, where F is a sunk cost incurred to enter the market. The entrant observes the incumbent's producing some units of output and expects this output level to be maintained. How much output would the incumbent firm have to produce to keep the entrant out of the market? [50p]
2. For years the EU pushes member countries to uplift entry barriers from markets that traditionally were considered state-run monopolies. One prominent instance of this is the market of electricity. As a result, many countries have privatized electrical companies and simultaneously allowed entry to any firm that complies with the industry standards. In those countries, the market is now served by an incumbent monopolist, while there are several entrepreneurs who consider entry. Research in the industry has shown that it is characterized by strategic substitutability.
 - (a) Assume that the incumbent is *tough* and that deterrence is not profitable. How should the incumbent behave? Explain. [25p]
 - (b) Assume that the incumbent is *soft* and that deterrence is not profitable. How should the incumbent behave? Explain. [25p]