## Economics 380: Suggested Solutions to Final

2 May, 2005

1. Observe the question you to calculate whether the firms can sustain a price below the monopoly price. The answer, however, is the same as before. That is we need $\delta \leq 1 / 2$ to sustain cooperation.
2. Getting a degree in itself serves as a signal since it is harder for low ability agents to get a degree. Hence there may be low ability people who got have got in, but chose not to because they knew you would have to complete the degree.
3. If selling, the government ignores the effect they have on the value of the current holders of plates. Thus they keep producing more and more. This is the Coase conjecture. There is also a second effect: if the government sells an extra plate this lowers the profit made by other taxi drivers. This holdup problem means the government sells too many plates (see Waldman (QJE, 1993) a thorough analysis). If the government rents plates then they would sell the monopoly quantity each period and price would remain high. Profits should thus be higher under renting.
4. This is a double marginalisation argument. However, there are other factors to take into account. First, the government may not maximise profits (hopefully, they try to maximise social welfare). For example, if the government just wants to have the right prices to discourage consumption, the prices would be the same under both regimes. Second, the government may be inefficient at selling alcohol, suggesting the pie is bigger in the U.K..
5. The price you pay for a flight depends upon:

- Degree of flexibility for changes and cancellations (2nd degree).
- when you buy your ticket (2nd degree)
- which class you travel in (2nd degree)
- which country you buy your ticket (usually 3 rd degree)
- whether you buy your ticket online (2nd degree)
- whether you are a student or not (3rd degree)
- how much you travel, for example, via your miles (2nd degree)
- when you travel (2nd degree)
- whether you buy single or return (2nd degree)

6. All three are necessary conditions for holdup. Your answer should explain why.
7. The argument in the question can be most easily seen when there is one incumbent who Bertrand-competes with any entrant. For example, see the Nutrasweet or Gainesville cases. A forward looking firms is therefore unlikely to enter this market, and the incumbent can make large profits. However, there are problems with the story:

- When there is no product differentiation, there will be a lot of competition over who gets to be the first firm. For example, hundreds of internet companies tried to be Amazon, yet only one succeeded. Similarly, when there are few consumers of the product, they can auction off the right to supply the product and extract all profits. For example, see the Gainesville case.
- If entry does occur, then profits will be higher with differentiation. Holland probably should not have entered, but it made a mistake, and Nutrasweet paid the price.
- The entry story assumes that there are many firms who can enter. Yet this may not be the case: most modern can firms have only started with government assistance. Talent and capital may be in limited supply and make it hard to enter.
- Price discrimination may act as a barrier in itself: it's much harder to make and market a new kind of cereal than it is to start growing corn.

Generally, there is no "correct" answer to this question. Of course, there are incorrect answers.

