

EC3322
Industrial Organization I
Semester 1, 2014-2015
Midterm Exam Solutions

1. a, 2. c, 3. b

4. It is easier to prevent resales of services such as haircuts, carwashes or house cleaning, massages, etc. than goods such as electronics.

Some people answered that it is easier to identify a customer's willingness to pay for a service by asking for age or student identification but there is no reason that the seller of a good couldn't also ask for identification. Some people also wrote that willingnesses to pay varied more across consumers of services than consumers of goods but there is no obvious reason to believe this is generally true. In fact, economists believe that people's valuations of all items, whether goods, services, or what have you, differ across the population because people have heterogeneous preferences.

5. Your answer should be framed in the context of a Hotelling model since the question is considering an otherwise homogeneous product that is differentiated by location. Even with a price increase it still costs some customers close to the petrol station less in total cost per unit (transportation cost plus price per litre) than buying from a station farther away. So, no, raising price won't cause all the customers to switch to a different station.

Some people answered that there would not be any transportation costs if the town is small. In the Hotelling model even customers very close to a shop pay transportation costs. So regardless of whether the line is short or long (corresponding for example to a small or large town), customers prefer being closer to a petrol station than farther away.

6. (a) Normal form:

		Warner Brothers	
		Dec. 11	Dec. 18
Disney	Dec. 11	200,200	350,150
	Dec. 18	150,350	100,100

(b) N.E. is both Disney and Warner Brothers release their movie on Dec. 11.

7. (a) $\Pi = 150$ and $DWL = 0$

(b) $P_1 = 6, P_2 = 9, \Pi = 81$. Total welfare is lower in part (b) since third-degree price discrimination creates DWL.

(c) The firm earns post-entry profits of 81 if it can price discriminate and 75 if it cannot. Thus, if we observe it enter in the first case $81 > S$ but not the second $75 < S$ and so $75 \leq S \leq 81$.