Price Discrimination

Introduction

The key assumption in deriving the supply curve for supply and demand is that suppliers maximize profits. (See the "Perfect Competition" model.) Another assumption, however, is that a given firm has to set the same price for all its customers. If a firm knows enough about its customers and can charge different prices to different customers, then it can secure a further increase in profits through price discrimination.

The Model

Suppose a supplier can identify two distinct groups of customers, students and nonstudents. The demand by students Qs and the demand by nonstudents Qn are given by

$$Qs = 100 - 8\,P$$
$$Qn = 100 - 4\,P$$

The total demand Qt = Qs + Qn is then

$$Qt = 200 - 12\,P$$

The supplier's cost of $2.00 per unit is constant regardless of the number of units supplied.

Exercises

1. What price maximizes profits if the firm charges everyone the same price?

2. Show that the firm can secure greater profits by charging different prices for the two groups than it can secure by charging everyone the same price.

3. Graph the demand curves, the marginal revenue curves, and the profit functions.