Monopoly Behavior

- Price discrimination: first, second and third degree.
- Bundling.
- Two-part tariffs.
First-Degree Price Discrimination

Monopolist sells different units of output for different prices, and prices may differ from person to person.

Idealized concept.
First-Degree Price Discrimination

\[ p \]

\[ MC \]

\[ y_A^* \]

\[ y \]

\[ p \]

\[ MC \]

\[ y_B^* \]

\[ y \]
Second-Degree Price Discrimination

Monopolist sells different units of output for different prices, but each person that buys the same amount pays the same price.

E.g.: bulk discounts (public utilities)
Second-Degree Price Discrimination

\[ p \]

\[ MC \]

\[ y_B^* \] \[ y_A^* \] \[ y \]

\[ B \] \[ C \] \[ A \]

\[ p \]

\[ MC \]

\[ y_B^* \] \[ y_A^* \] \[ y \]

\[ B \] \[ C \] \[ A \]
Second-Degree Price Discrimination

- In practice monopolist adjusts quality rather than quantity of the good.
- Idea: reduce the quality offered to the low-end of its market, to prevent high-end customers from switching and get more of their surplus.
- E.g.: “unrestricted airfare” for business travel and “restricted airfare” for non-business.
- E.g.: First-class and coach class.
Third-Degree Price Discrimination

Monopolist sells different units of output for different prices, but every unit of output sold to a given person sells for the same price.

E.g.: senior citizens’ and students’ discounts.
Third-Degree Price Discrimination
Bundling

Packages of related goods offered for sale together:

- Software (spreadsheet, word processor, …)
  In 1993 around 50% of Microsoft applications software was sold in bundles.
- Magazines subscriptions
## Bundling: Example

<table>
<thead>
<tr>
<th>Type of consumer</th>
<th>Word processor</th>
<th>Spreadsheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A consumer</td>
<td>$120</td>
<td>$100</td>
</tr>
<tr>
<td>Type B consumer</td>
<td>$100</td>
<td>$120</td>
</tr>
</tbody>
</table>
Bundling: Example

يز Marketing policy 1: sell items separately: best to charge $100 each software. Monopolist gets $400.

يز Marketing policy 2: bundle word processor and spreadsheet and sell each bundle for $220. Monopolist gets $440.
Bundling: Intuition

- Individual with \textit{lowest} willingness to pay determines market price when an item is sold to different people.

- Bundling allows monopolist to reduce the dispersion in willingness to pay, and thus to charge a higher price for the bundle of goods.
Two-Part Tariff

Example: owners of amusement parks set one price for tickets to get into the park and another for the rides.

How are these prices related?
Two-Part Tariff

\[ p \]
\[ p^* \]
\[ MC \]

\[ y^* \]

number of rides