Simple (single-price) monopoly: Key results

Part A: price, marginal revenue and elasticity

\[ MR = P \cdot \frac{|e| - 1}{|e|} \]

Note 1: MR is always \( \leq P \).
\( (= P \text{ if } e = \infty, \text{ as for PC firm}) \)

Note 2: MR > 0 if and only if \( e > 1 \).
Recall: MR tells us what is happening to TR:
Selling more raises TR if \( e > 1 \)
Selling less raises TR if \( e < 1 \)

Part B: output, price, and profits

\[ Q = 40 - 2P \]
\[ TC = 80 + 4Q \]

<table>
<thead>
<tr>
<th>( Q )</th>
<th>ATC</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>14.00</td>
</tr>
<tr>
<td>16</td>
<td>9.00</td>
</tr>
<tr>
<td>24</td>
<td>7.33</td>
</tr>
<tr>
<td>32</td>
<td>6.50</td>
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</tbody>
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Note 1: A secure, simple monopoly never operates in the region of inelastic demand.

Note 2: The lower the elasticity, the higher the monopoly markup.

Markup pricing:

\[ P = \frac{|e|}{|e| - 1} \cdot MC \]