Let’s start with our basic monopoly graph.

We put a tax of $T$ on each unit sold.

Conclusion: Price goes up.
Taxing a Monopoly -2

• A tax is imposed on the firm’s monopoly profits. That is, we collect a tax bill
\[ \lambda(R-C) \]
• The firm’s problem is now to maximize
\[ \pi = (1-\lambda)(R-C) \]

Taxing a Monopoly -2

• Think of its problem as maximizing
\[ \pi = R-C \]
• Where
\[ R = (1-\lambda)R \]
• And
\[ C = (1-\lambda)C \]

Taxing a Monopoly -2

• Obviously
\[ MR = MC \]
• But that means
\[ MR = (1-\lambda)MR = (1-\lambda)MC = MC \]

Taxing a Monopoly -2

\[ (1-\lambda)MR = (1-\lambda)MC \]
\[ MR = MC \]

No change in price and quantity produced. Simply a reduction in monopolist’s profits.

Taxing a Monopoly -2

\[ (1-\lambda)MR = (1-\lambda)MC \]
\[ MR = MC \]

Be careful to place tax on economic profits, not accounting profits
Regulating a Monopoly

- KSU is prepared to give Coke or Pepsi a monopoly on cola sales on the campus.
- How should it set up the bidding process?

Assumption

Coke = Pepsi
Plan A

- Assume MC = 0.

The Winning Bid

- Assume MC = 0.

Consumer Surplus

- Assume MC = 0.

Plan B

- Coke and Pepsi bid for contract in terms of price to be charged. Low bidder wins.
Plan B

- Coke and Pepsi bid for contract in terms of price to be charged. Low bidder wins.
- Price will drop to zero.

Now look at the Consumer Surplus

• Compare!

A Problem

- Coke and Pepsi bid for contract in terms of price to be charged. Low bidder wins.
- Price will drop to zero.
- Now look at the Consumer Surplus
- AND COMPARE

If Coke or Pepsi is giving soda away, what are their incentives to deliver?

End