

### Problem Set 11

Due Lecture 13 in class on paper

1. Gruber Chapter 19, Question 4, 2nd Edition, question reproduced below

The demand for football tickets is  $Q = 360 - 10P$  and the supply of football tickets is  $Q = 20P$ . Calculate the gross price paid by consumers after a per-ticket tax of \$4. Calculate the after-tax price received by ticket sellers.

Gross price is the price paid in the market. After-tax price is the price without the tax.

2. Gruber Chapter 19, Question 12, 2nd Edition, question reproduced below

The government of Byngia has introduced a new tax on airline travel. Byngia has two types of travelers: business travelers and leisure travelers. Business travelers in Byngia have an elasticity of -1.2, while Byngia leisure travelers have an elasticity of -3.0. Airlines can price-discriminate between these two groups; that is, they can charge different prices to the different types of fliers in the market. Which type of travel will bear the larger burden of the tax? Explain.

3. Yoga

Last year, Washington, D.C. passed a tax on yoga. Although this tax was an ad valorem tax, for purposes of this problem set, we will pretend it was a \$4/class tax. Also, unlike the real world, we will assume that those taking yoga classes bear the statutory incidence of the class.

Suppose that the pre-tax demand for yoga classes is  $Q = 2000 - 100P$ , and that the pre-tax supply of yoga classes is  $Q = 300P - 200$ .

- (a) What are the original price and quantity?
- (b) What is the demand with the new tax?
- (c) What is the new equilibrium price and quantity?
- (d) What is the tax burden on yoga consumers? yoga producers?

4. Corporate Income Tax

The incidence of the corporate income tax is one of the most heavily debated issues in economics. Discuss which parties could possibly bear the burden of this tax. Don't discuss how the burden of the tax is shared – just identify who could possibly bear the burden of the tax.