MGEC02 - TOPIC 1 - Homework Questions

1.1 excise tax on gasoline

In the early 1990s, the demand and supply curves for gasoline in the U.S. were approximately $Qs = 60 + 40P$ and $Qd = 140 – 40P$ in the vicinity of the market equilibrium, where quantity is in billions of gallons per year and price is in dollars per gallon. The government was considering an excise tax of 50 cents per gallon to promote conservation. What would be the decrease in gasoline consumption caused by the tax. What would be the deadweight loss of the tax?

1.2 steel import quota (#1)

In the early 1980s, in the face of stiff price competition from foreign producers, U.S. steelmakers put pressure on their government to limit steel imports. In 1984, import quotas were set to limit imports to 20% of the U.S. market in 1989, i.e. 11 million tons. The supply curve for U.S. steel was estimated to be $Qs = 30.05 + 0.1545P$ in the vicinity of the market equilibrium, where quantity is in millions of tons per year and price is in dollars per ton. Foreigners seemed willing to supply an unlimited amount of steel at $311 per ton. U.S. demand for steel was estimated to be $Qd = 117.15 – 0.0818P$. How much did the profits of U.S. steelmakers increase? What was the welfare loss to the U.S. economy of the import quota?