Question 1.

Kate enjoys drinking coffee and soda. Both cost $1 each, and she allocates $150 to spend on these beverages alone each month. Her utility functions is with MRS =

1. Find the equilibrium demand for both goods and calculate her utility.
2. Suppose government imposed $0.60/unit tax on Soda. Find Kate’s new optimum consumption under the new budget constraint. Calculate the government revenue.
3. Suppose an alternative policy of imposing a tax on income. How much the tax should be for the government to be able collect the same revenue? Find the new equilibrium for Kate.

Question 2.

Suppose that the market demand curve for garbanzo beans is given by:

Q = 20 – P

1. Calculate the demand for P=10
2. Calculate the price elasticity of demand for P=10 and P=15. Calculate the total revenue in both price levels and explain the relationship between the elasticity and total revenue.
3. Calculate the price and quantity level for which the total revenue is maximized.
4. Suppose that the demand for beans shifted to Q = 40-2P. Graph the new demand curve and calculate the price and quantity that would yield the highest expenditure level.