Chapter 2

1. Suppose that the individual demand curves for two individuals are given by

$$Q_1^D = \begin{cases} 200 - 10P & \text{if } P \leq 20 \\ 0 & \text{otherwise} \end{cases} \quad \text{and} \quad Q_2^D = \begin{cases} 100 - 10P & \text{if } P \leq 10 \\ 0 & \text{otherwise} \end{cases}$$

and that the supply curve for the firm is given by

$$Q_{mkt}^S = \begin{cases} 20P - 100 & \text{if } P \geq 5 \\ 0 & \text{otherwise} \end{cases}.$$

Find the market equilibrium (keeping in mind that the market price may be such that only 1 consumer will be willing to stay in the market).

2. Suppose that when Snarfburger originally charged a price of \$5 for their burger, they sold $1,000$ burgers per week. Thinking that they could potentially make more money by charging a higher price, they raised their price by 50 cents. After raising their price, they sold 800 units per week.

   (a) Find the price elasticity of demand for Snarfburgers.

   (b) Write a sentence interpreting the price elasticity of demand you calculated.