Practice Problems 1 - *Supply and Demand Model*

Econ 300 G AU08

Perloff Chapter 2 Problems: 24, 27

P1: Suppose the quantities demanded and supplied of beer (in millions of bottles) are determined by the following equations respectively:

$Q^D = 100 - 40p$
$Q^S = 10p$

Where p is the price per bottle of beer.

A. Is $1.50 the equilibrium price of beer? If not, what is the excess supply or demand?

B. If $1.50 is not the equilibrium price of beer, determine the equilibrium price and quantity.

C. Suppose wild fires in Washington State (a major U.S. producer of hops that are used to make beer) shift the supply curve of beer to $Q^S = 10p - 10$. Calculate the new equilibrium price and quantity

D. In general, without knowing the exact supply and demand equations, can you predict what would happen to the price and quantity of beer if there were simultaneously wild fires in Washington State that destroyed crops of hops and a discovery that beer was good for your health?

P2: Suppose the market for potatoes can be expressed as follows:

Supply: $Q^S = 10P - 20$
Demand: $Q^D = 400 - 20p$

If the government sets a maximum price of $10 per unit, what will be the quantity demanded and quantity supplied?

P3: Diagram the effects of the following events on the supply and/or demand for raisin bran cereal:

A. The price of raisins increase.

B. The price of milk decreases.

C. The price of corn flakes cereal decreases.

D. Average family income increases.