# Chapter 4 Practice Problems

Elements of Microeconomics - Section 4 Kieran Allsop (created by John Green)

# Question 1

## Part A

Last year Maryland passed a gas tax holiday, temporarily lowering the price of gasoline. Some critics said that lowering the tax would make people want to buy more gasoline and might end up actually *increasing* the price.

- 1. Will the tax decrease cause the demand curve for gasoline to shift?
- 2. What are some complements and what are some substitutes for gasoline?
- 3. What are some factors that might cause the demand curve for gasoline to shift?

# Part B

Draw supply and demand curves for the market of gasoline, and show the impact of the decrease in the gas tax.

Does this represent a change in the demand curve or the supply curve?

#### Part C

Now suppose all cars experience a sudden increase in fuel efficiency: we can drive more miles with the same amount of gasoline. Represent this as a shift in supply or demand in our market for gasoline.

## Part D

Now think about the two changes together; the gasoline tax is lowered, and fuel efficiency is increased. What is the net effect on the equilibrium quantity and price? Is it unambiguous?

## Part E

Now suppose fuel efficiency suddenly gets *worse*. Redo the exercise: show the impact on the demand curve, and the possible new market equilibrium when there is both a tax cut and a decrease in fuel efficiency.

# Question 2

In the last few years, the Orioles have gone from one of the worst teams in MLB to one of the best.

- 1. Draw the supply and demand curves for Orioles tickets.
- 2. Does the supply curve look like it did in the gasoline market?
- 3. Will the team's improved record effect supply or demand, and why?
- 4. What will happen to equilibrium price and quantity?