1. Early philosophers believe that everything has its internal value, and its price fluctuates around this value. But they have a hard time explaining why water is so much cheaper than diamond. After all we need water to survive, but we don't need diamond. Can you explain why the price of water is so much lower?

2. Discuss the forces that drive the market to Equilibrium (What happens when the price is higher than equilibrium price? What happens when the price is lower than equilibrium price?).

3. When there is excess demand and market is not working, waiting, as a mechanism, is often used to allocate the goods. If market mechanism is used, people who value the good most (with highest maximum willingness to pay) get the good; if waiting mechanism is used, people who wait long enough in line get the good. In reality, market is used when allocating goods like apples, but waiting is used to decide who should get the next kidney donated (A black market may exist though). Why don't we use market to allocate kidneys?

4. The price of beef has increased. Jack, a policy consultant, does some research and identifies two possible reasons: a) The cost is higher for some major beef producers, b) More people switch to beef after they know how chickens are raised. Assume one reason dominates, and the only data Jack has are the price and sales records of beef. Can you help Jack to figure out which one reason drives the price of beef higher?

5. Write down the key assumptions for a perfectly competitive market from your understandings. Then check the notes to see if you miss any assumption and why that assumption is important.

6. (Problem 3 of Ch4.) Consider the market for minivans. For each of the events listed below, identify which of the determinants of demand or supply are affected. Also indicate whether demand or supply is increased or decreased. Then show the effect on the price and quantity of minivans.
   a. People decide to have more children.
   b. A strike by steelworkers raises steel prices.
   c. Engineers develop new automated machinery for the production of minivans.
   d. The price of SUVs rises.
   e. A stock market crash lowers people's wealth.

7. (Based on Problem 16 of Ch4.) At a price of $320 per ton, the supply of wheat in Canada is 25 million tons and the demand is 26 million tons. When the price increases to $340 per ton, the supply increases to 27 million tons and the demand decreases to 22 million tons. Assume that both the demand and supply curves are linear. (Use Q_d and Q_s to denote the quantity demanded and supplied respectively.)
   a. What is the equation for the demand curve for wheat? Draw the diagram and show the slope.
   b. What is the equation of the supply curve for wheat? Draw the diagram and show the slope.
   c. Using these equations, what is the equilibrium price and quantity of wheat?
   d. What is the price elasticity of demand at the point (Quantity=26 million tons, Price=$320)? At the point (Quantity=22 million tons, Price=$340)?

e. What is the price elasticity of supply at the point (Quantity=25 million tons, Price=$320)? At the point (Quantity=27 million tons, Price=$340)?
f. At which point (Q=? P=?) the price elasticity of demand is equal to 1?
g. Suppose now the government imposes a sales tax of $10 per ton on the wheat producers. Calculate the new equilibrium (price and quantity). How much tax does the government collect? How much of the tax falls on the consumers, and on the producers? What if the tax is a consumption tax of $10 on the consumers?

8. (Problem 13 of Ch.5) A price change causes the quantity demanded of a good to decrease by 30 percent, while the total revenue of that good increases by 15 percent. Is the demand curve elastic or inelastic? Explain.

9. (Problem 12 of Ch.5) Explain why the following might be true: A drought around the world raises the total revenue that farmers receive from the sale of grain, but a drought only in Alberta reduces the total revenue that Alberta farmers receive.

10. (Problem 8 of Ch.5) Consider public policy aimed at smoking.

    a. Studies indicate that the price elasticity of demand for cigarettes is about 0.4. If a pack of cigarettes currently costs $10 and the government wants to reduce smoking by 20 percent, by how much should it increase the price?

    b. If the government permanently increases the price of cigarettes, will the policy have a greater effect on smoking one year from now or five years from now?

    c. Studies also find that teenagers have a higher price elasticity than do adults. Why might this be true?