

1. Analyze the impact of a sale tax imposed on the producer when the supply curve is vertical and the demand curve is downward sloping.
2. Illustrate the graph how demand and supply curve change from its normal situation comparing between after imposing rice pledging program and price guarantee program.
3. Describe the effect of imposing price ceiling on bus fee without any further intervention (Government did not come in and subsidize the bus provider. Just pure effect from price floor) comparing to government come in and help.
4. Situation: Now we are a small country in the open economy that we are allow to export and import goods to the rest of the world. We are now exporting steel at the world price ( $P^w$ ) is below the domestic price. Then China just open their country and get into the industrialization period. They demand more steel from the world. Describe the effect before and after. (CS, PS World price, amount export, amount import)
5. From No.4 what if after the effect of China open economy and our government need to take extra action. Compare the impact if government impose export quota with import subsidy.

#### Consumer behavior

1. Do you agree or disagree with a statement that “ If the prices of goods and amount of budget increase at the same proportion, there will be no effect on consumption choice”
2. In order to increase educational index, prime minister of Tryland is choosing between lump-sum income subsidization and free coupon for tuition. In your opinion which policy is better?
3. Explain how the consumer choose their consumption plan using a concept of marginal utility.
4. Explain why some worker decide to work less when they have more salary.
5. Show 2 example that the consumer will not choose at where marginal rate of substitution is equal to the price ratio.
6. Show and explain that why Marshallian demand can have positive upward slope while Hicksian demand cannot.
7. Given Utility function :  $\ln((x^{1/2})*(y^{1/2}))$ ,  $P_x = 5$ ,  $P_y = 3$ ,  $m = 200$ 
  - a. Find the Optimal consumption plan
  - b. Suppose that the price of good Y increases to 4 find the new optimal consumption plan
  - c. Construct Marshallian demand and Hicksian demand

#### Intertemporal

For question 1 and 2 assume that there is no investment option.

1. Show that when interest rate decreases lender may switch to be borrower and vice versa.
2. The government announced that there will be an increase in minimum wage in the next period, but the tax level on income will be also increase in this period. Illustrate the new consumption plan.
3. Suppose that the rate of return of investment decreases at every level of investment. Show the new optimal consumption plan. Assuming there is no future income, only present income.
4. Show that a consumer with no endowment in both future and present period can still invest and consume goods by borrowing and investing. (Hint: With the borrowed money the present endowment is negative)