

## PROBLEM SET #6: Individual Demand - The Indifference Curve Interpretation

1. Slobodon spends all his income on meat or on potatoes. Draw his budget constraint in each of the following cases.
  - a. His income is \$100. Meat costs \$2 per pound, potatoes cost \$1 per pound.
  - b. His income is \$100. Meat costs \$4 per pound, potatoes cost \$1 per pound.
  - c. His income is \$200. Meat costs \$4 per pound, potatoes cost \$1 per pound.
  - d. His income is \$200. Meat costs \$8 per pound, potatoes cost \$2 per pound.
  
2. Use indifference curves to illustrate your preferences between the following goods.
  - a. Left and right shoes. What do we call such goods?
  - b. Quarters and nickels. What do we call such goods?
  
3. Suppose that the Borgia family has \$100 to spend on food per day. Suppose also that they always use 1 lb. of salt per 999 lbs of food they consume.
  - a. What kind of goods are salt and food for the Borgias.
  - b. If the price of food is  $p_f$  and the price of salt  $p_s$ , show the budget constraint for the Borgia's.
  - c. Suppose that initially a lb. of salt costs \$1, and a lb. of food \$1. How many pounds of salt and how many pounds of food are consumed? (Hint:  $Q_f = 999Q_s$ ).
  - d. Suppose the price of salt falls to \$0.50 per pound. What is the new budget constraint? How much food and how much salt are consumed?
  - e. What is the price elasticity of demand for salt?
  - f. Suppose instead the price of food falls to \$0.50 per lb. and the price of salt is still \$1. What is the consumption of food and salt now?
  - g. What is the price elasticity of demand for food? Why is the answer here so different?