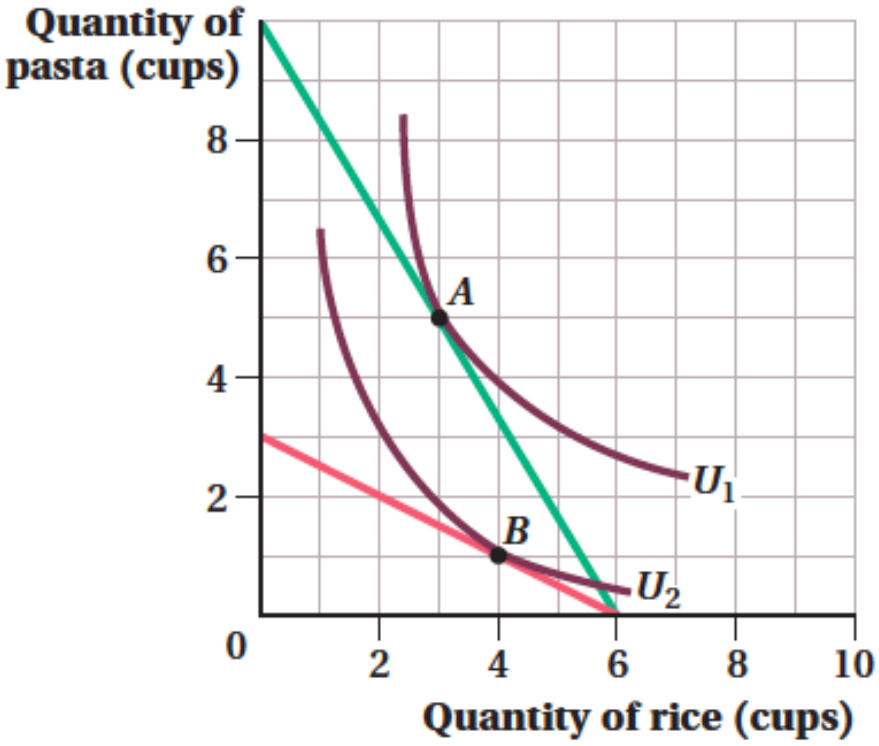
Homework 2: Consumer Theory **Economics 304**

1) Describe, in your own words, what happens at the optimum consumption point. Why is it the optimum? What does the equality of the slope of the indifference curve and the slope of the budget constraint *mean*, in English?

2) Define the substitution effect. How does it relate to income effect?

3) Suppose that Sonya faces an increase in the price of pasta, as depicted below, moving from and optimum bundle of rice and pasta at A to an optimal bundle at B.



a. Graphically depict the substitution and income effects.

b. Which effect is the strongest? How can you tell?

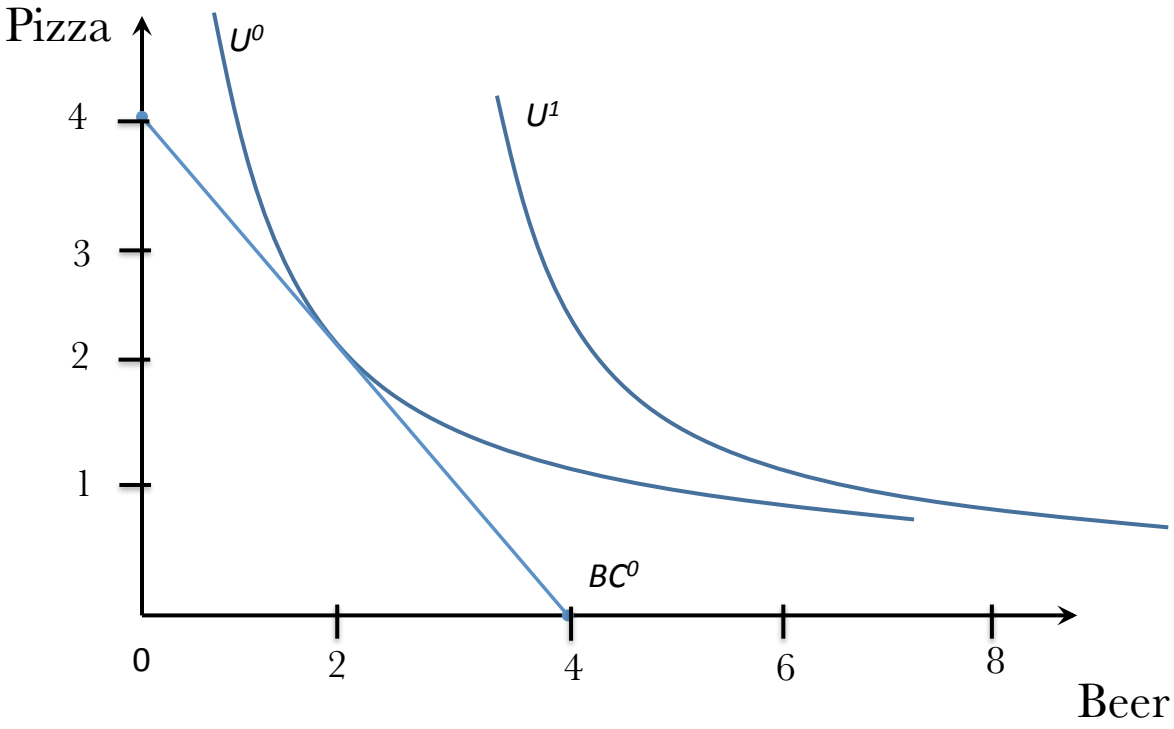
4) Consider the indifference curves and budget constraint for consuming beer and pizza on the graph provided. Initially, the consumer income is $16 and a slice of pizza is $4 and a pint of beer is $4.

a. Given budget constraint BC^0 show on the graph provided the optimal consumption decision of beer and pizza and in the space below explain the rationale why this is the optimal decision.

b. Suppose that the price of beer falls to $2. On the graph draw the new budget line and find the new optimal bundle of beer and pizza. In the space below, explain how you would trace out the demand curve for beer. Draw the demand graph for beer.

c. Determine the income and substitution effect for the price change in part B (the price of beer falling by $2). Show each effect on the graph provided.

d. Is beer a normal or inferior good? Explain how you know.



5) Consider the labor-leisure model.

A) On the graph below draw the constraint with wages at $10 per hour

B) Now draw the constraint on the graph provided when the worker starts to make overtime, a wage of $20 per hour, for <u>any labor hours above 9 in a day</u>.

C) Draw your preferences (indifference curve) for this new wage rate that includes the possibility of overtime.

D) Explain any differences in the outcomes (# of hours working and income) with and without overtime.