

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point on the assignment.

1) (30 points) Draw indifference curves and budget constraint for peanut butter and jelly. Illustrate an increase in the price of peanut butter. Show the income and substitution effects. As drawn, are the substitutes or complements? Explain why the curve(s) moved as drawn, how you got the income and substitution effects, and how you knew whether they were substitutes or complements.

2) (25 points) Draw the budget constraint for bread and cereal. Assume that a box of cereal costs two loaves of bread and that if you buy 1 box of cereal, the second one is half price. Explain why the curve takes that shape. Assume that there is a limit of one box at the reduced rate.

3) (15 points each) For each part, draw the indifference curve for apples and oranges if the utility function is given by the equation given. Show all work and briefly explain how you got that drawing.

A)  $U = 3A + O$ .

B)  $U = A * O$

4) (15 points) Without drawing the diagram, explain why a gift of money may sometimes make somebody better off than a gift in kind. Also, explain why it often will not.