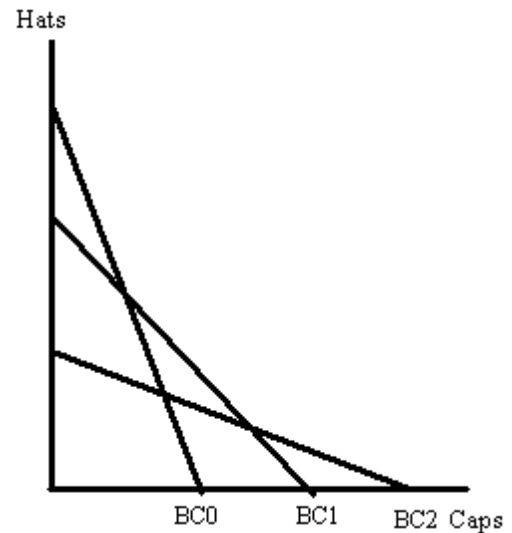


Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (25 points) Draw three indifference curves on an indifference curve/budget constraint diagram for bottles of sprite and cans of sprite assuming they hold the same amount of liquid and are perfect substitutes for each other. Draw the budget constraint for cans costing \$0.75/can and bottles costing \$1.00/bottle if your budget is \$15.00. According to your graph, how many bottles and cans do you buy? Explain your logic. Briefly explain why your lines look as drawn.

2) (15 points) All labeled points on the graph to the right are at the intersection of two budget constraints except for Points A and E. Assume that if the consumer is facing  $BC_0$  that they choose Point A. If they are facing  $BC_1$ , then they choose Point B. If they are facing  $BC_2$ , then they choose Point C. Rank the points for preference of the consumer. Explain how you reached those conclusions.



3) (25 points) Use a budget constraint/indifference curve diagram to show how when a donor to Bethany College restricts the use of the money for a particular purpose like a new computer lab, it could make Bethany worse off than if they had not restricted the money. (Note, it may make no difference to Bethany's well being if the graph was drawn differently, but I did not ask you to do that.)

4) (25 points) Draw an indifference curve/budget constraint diagram which proves the Laspeyres Price index over estimates the cost of inflation. Explain how your diagram proves that.

5) (10 points) What is the equi-marginal principle? Why should it hold?