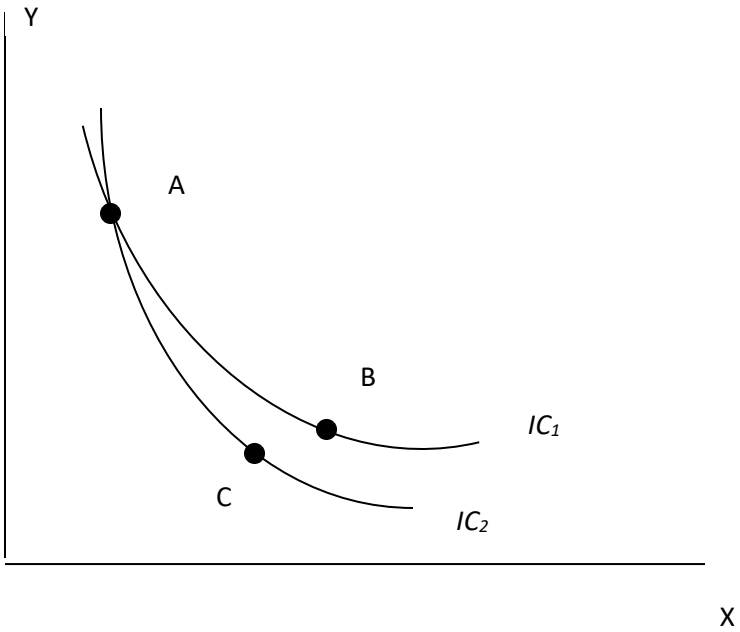
Problem Set #3 (answers)
ECNS 204
Snowmester 2020

1.) Given the diagram below, provide a logical explanation for why indifference curves cannot cross.

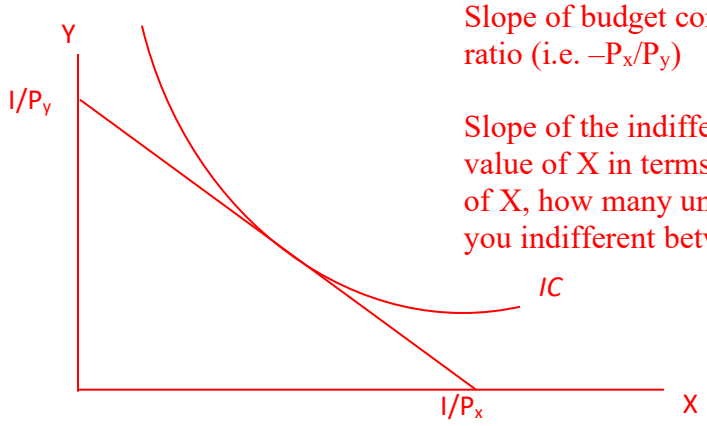


A is equally preferred to C.
A is equally preferred to B.
Therefore, B should be equally preferred to C. However, as the diagram clearly shows, B is preferred to C.

2.) Suppose a consumer spends all of his income, I, on goods x and y. The price of x is P_x and the price of y is P_y.

a.) Write an equation describing the consumer's budget constraint.
$P_xx + P_yy = I$

b.) Graph the consumer's budget line. **Make sure to label your graph (including the vertical and horizontal axis intercepts).** Show the consumer's optimal consumption decision with an indifference curve. What does the slope of the budget line represent? What does the slope of the indifference curve represent?



Slope of budget constraint represents relative price ratio (i.e. $-P_x/P_y$)

Slope of the indifference curve represents marginal value of X in terms of Y (i.e. if you give up one unit of X, how many units of Y are you required to leave you indifferent between the two bundles