

Homework 2

Budgets and Preferences

Econ 101
Professor Guse

1. Consider a two-good world with pizza and beer. Betty has a weekly income of \$60. The price of pizza, p_z , is \$10 per pie. The price of beer, p_b , is \$5 per pint.
 - (a) Draw the budget set.
 - (b) Suppose that the pizza parlor offers Betty a deal in which they will give her a free pizza whenever she buys two at full price. Redraw her budget set.
2. Cookie monster has m to spend each month on milk and cookies. The price of milk is p_m . The price of cookies is p_c .
 - (a) Draw Cookie Monster's budget set.
 - (b) The government want to help Cookie Monster eat better and issues him K dollars worth of "milk stamps". Redraw Cookie Monster's budget set. Assume that milk stamps cannot be spent on cookies nor can they be redeemed or sold for cash.
 - (c) Assume that Cookie Monster is able to sell his milk stamps on Sesame Street's underground market for fifty cents on the dollar. Redraw his budget set.
3. Consider the preferences for bundles of Good 1 and Good 2 depicted below. Assume that preference are monotonic (more is better).

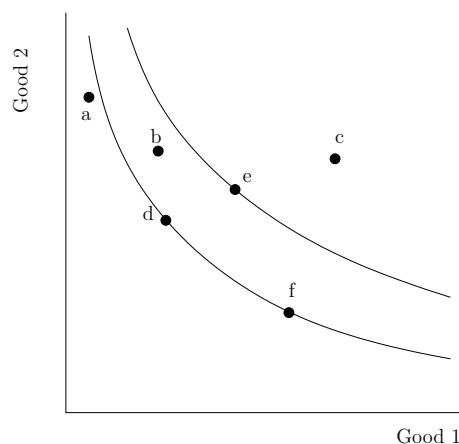


Figure 1.

- (a) Rank the bundles from most preferred to least preferred noting any ties.
- (b) Shade in area representing all bundles which this consumer likes at least as much as bundle f .
4. Consider the bundles of Good 1 and Good 2 depicted below. The two diagrams show the exact same bundles. Assume that both Jaime on the left and Lucy on the right are rational and have convex monotonic preferences.

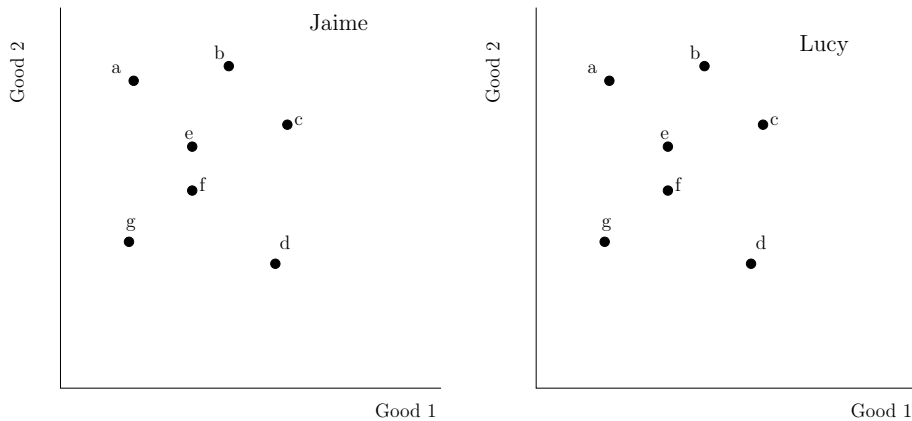


Figure 2.

- (a) Draw Jaime's indifference curves so that they reflect the following preference ordering.

$$b \succ a \sim c \succ e \succ f \succ g \sim d \quad (1)$$

- (b) Draw Lucy's indifference curves so that they reflect the following preference ordering.

$$c \sim b \succ e \succ a \succ f \sim d \succ g \quad (2)$$

By the way, \sim means "is as good as"; \succ means "is strictly preferred to". So $x \succ y$ means that x is strictly preferred to y .

5. The combination of 4 Barbie Dolls and 3 bottles of whiskey would have Jacob spending all of his income. When Jacob has 4 dolls and 3 bottle of whiskey, he is willing to give up dolls for whiskey at a rate of 3 per bottle. The price of whiskey is \$20/bottle and the price of Barbie Dolls is \$10 each. Explain why or why not $(4, 3)$ is an optimal choice for Jacob. Depict this situation in a diagram.