

Econ 101
 Fall 2001
 Practice Questions 4

Question 1

Darcie buys two goods: happy-face magnets and cheeseburgers. The price of a magnet is \$1, and the price of a cheeseburgers is \$2. Each month, Darcie spends all of her income and buys 30 magnets and 5 cheeseburgers. Next month, the price of magnet will fall to \$0.50 and the price of a cheeseburger will rise to \$5. Assume that Darcie's preferences are similar to that in Figure A.3. on page 150 of the textbook.

- Will Darcie be able to buy 30 magnets and 5 cheeseburgers next month?
- Will Darcie want to buy 30 magnets and 5 cheeseburgers at these new prices?
- When the prices change next month, will there be an income effect and a substitution effect at work or just one of them?
- If at the original prices, Darcie's marginal utility of another magnet is 40, and the marginal utility of another cheeseburger is 80, is she maximizing her utility? If not, how can she adjust her bundle so that she does maximize her utility?

Question 2

Kim is your typical economics graduate student and consumes 2 goods: economics textbooks and coffee. Kim also earns a typical grad student income, \$40 a month. He can either spend it all on books and get 5, or he can spend it all on coffee and get 20 cups.

- Given this information, construct the equation for Kim's budget line (put books on the x-axis and coffee on the y-axis).
- The following are the bundles that Kim can afford with his income:

Books	Coffee
1	
	0
	8
2	

Fill in the blanks with the quantities that will exhaust Kim's income.

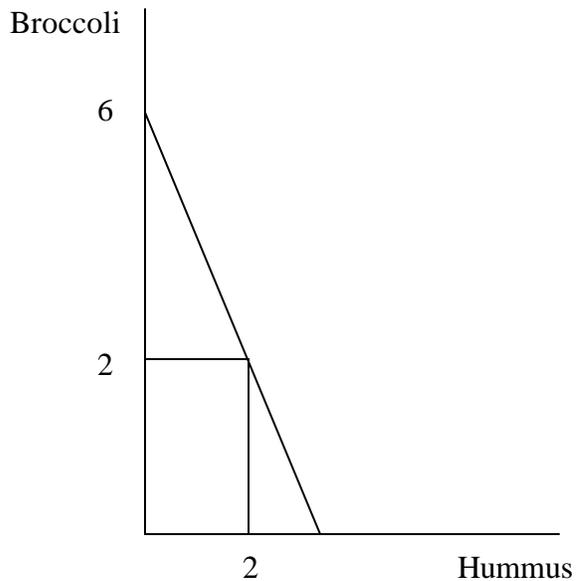
- Kim gets a research grant and his income increases to \$80 a month. What is the new equation of his budget line? What if income stays constant at \$40, and the price of a book increases to \$10?
- Assume that prices are the same as used in part a. If the marginal utility of a book is 20, what is the marginal utility of coffee if he is maximizing his utility?

- e) Now assume that textbooks and coffee are complements for Kim. For him to consume one textbook, he needs 1 cup of coffee. How many textbooks does he consume given his income of \$40, and the prices used in part a? What if economics is so boring that Kim needs 2 coffees for every book that he consumes?

Multiple choice

- (1) At prices of \$6 for a CD and \$4 for a cigar, Mike can afford to buy 6 CDs and 8 cigars with income I . If Mike is maximizing his utility at this bundle, what is his income?
- a) $I = 54$
 - b) $I = 72$
 - c) $I = 68$
 - d) $I = 100$
 - e) $I = 40$
- (2) Christina consumes hot pants and blue eyeshadow. At prices of \$2 for a pair of hot pants and \$2 for blue eyeshadow, her marginal utility of consuming another unit of blue eyeshadow is 4, and her marginal utility of another pair of hot pants is 2. Which of the following statements is true (hint: picture hot pants on the y-axis and blue eyeshadow on the x-axis):
- a) Christina could be on a higher indifference curve if she purchased more eyeshadow and less hot pants.
 - b) Christina could be on a higher indifference curve if she purchased more hot pants and less eyeshadow.
 - c) Christina has purchased her optimal bundle.
 - d) Christina could be on a higher indifference curve if she bought less of both.
 - e) None of the above.
- (3) Laura consumes 5 pies and 7 burritos. At this bundle, Laura's marginal utility of consuming one more pie is 10, while her marginal utility of consuming one more burrito is 5. Which of the following statements is true:
- a) If Laura consumes 6 pies and 6 burritos, she will be on a lower indifference curve.
 - b) If Laura consumes 6 pies and 8 burritos, she will be on the same indifference curve.
 - c) If Laura consumes 6 pies and 8 burritos, she will be on a lower indifference curve.
 - d) If Laura consumes 4 pies and 8 burritos, she will be on a lower indifference curve.
 - e) If Laura consumes 4 pies and 8 burritos, she will be on the same indifference curve.

(4) The following figure is Harvey's budget line for broccoli and hummus:



Which of the following statements is consistent with the above graph?

- a) The price of hummus is \$4 and the price of broccoli is \$4.
- b) The price of hummus is \$4 and the price of broccoli is \$8.
- c) The price of hummus is \$8 and the price of broccoli is \$4.
- d) The price of hummus is \$4 and the price of broccoli is \$6.
- e) The price of hummus is \$6 and the price of broccoli is \$4.

(5) We want to calculate the rate of inflation for two years, 1999 and 2000. We choose 1999 as our base year and so the CPI for this year is 100. We find that the rate of inflation from 1999 to 2000 was 100%. Given this, what must the CPI for 2000 have been?

- a) 101
- b) 110
- c) 150
- d) 200
- e) 1000

(6) Suppose that individuals consume only two goods: licorice and jujubes. We have the following information on prices and quantities:

Good	Price per unit in 1999	Quantity in 1999	Price per unit in 2000
licorice	\$0.25	2	\$0.60
jujubes	\$0.50	1	\$0.80

Assuming that the consumption bundle in 2000 was the same as the consumption bundle in 1999, what was the rate of inflation from 1999 to 2000?

- a) 20%
- b) 40%
- c) 50%
- d) 60%
- e) 100%

(7) An individual consumes two goods:

Good	Price per unit in 1998	Quantity in 1999	Price per unit in 1999
popcorn	\$0.50	2	?
cola	\$0.50	2	\$0.80

If the rate of inflation from 1998 to 1999 is 50% and the consumer's consumption of popcorn and cola does not change, what is the price of popcorn in 1999?

- a) \$0.10
- b) \$0.60
- c) \$0.70
- d) \$0.75
- e) \$1.00