

2009 AP[®] MICROECONOMICS FREE-RESPONSE QUESTIONS (Form B)

2. Sasha is a utility-maximizing consumer who spends all of her income on peanuts and bananas, both of which are normal goods.
- (a) Assume that the last unit of peanuts consumed increased Sasha's total utility from 40 utils to 48 utils and that the last unit of bananas consumed increased her total utility from 52 utils to 56 utils.
- (i) If the price of a unit of peanuts is \$1 and Sasha is maximizing utility, calculate the price of a unit of bananas.
- (ii) If the price of a unit of peanuts increases and the price of a unit of bananas remains unchanged from the price you determined in part (a)(i), how will Sasha's purchase of peanuts change?
- (b) Assume that the cross-price elasticity of demand between peanuts and bananas is positive. A widespread disease has destroyed the banana crop. What will happen to the equilibrium price and quantity of peanuts in the short run? Explain.
- (c) Assume that the price of bananas increases.
- (i) Will the substitution effect increase, decrease, or have no effect on the quantity of bananas demanded?
- (ii) What happens to Sasha's real income?

AP[®] MICROECONOMICS
2009 SCORING GUIDELINES (Form B)

Question 2

6 points (2 + 2 + 2)

(a) 2 points:

- One point is earned for calculating the price of a unit of bananas, $\$4/8 = \0.50 .
- One point is earned for stating that Sasha will purchase fewer peanuts.

(b) 2 points:

- One point is earned for stating that the equilibrium price and quantity of peanuts will both increase.
- One point is earned for explaining that peanuts and bananas are substitutes, and since the price of bananas increased, it would cause the demand for peanuts to increase.

(c) 2 points:

- One point is earned for stating that the substitution effect causes the quantity of bananas demanded to decrease.
- One point is earned for stating that Sasha's real income will decrease.