

AP[®] MICROECONOMICS
2008 SCORING GUIDELINES

Question 2

5 points (1 + 2 + 2)

(a) 1 point:

- One point is earned for defining marginal utility as the extra satisfaction received from consuming an additional unit of a good or service.

(b) 2 points:

- One point is earned for concluding that Mandy should purchase more fudge and less coffee.
- One point is earned for explaining that the per dollar MU for fudge is greater than the per dollar MU for coffee.

(c) 2 points:

- One point is earned for stating that the price elasticity of demand for good R is zero.
- One point is earned for stating that none of the tax will be paid by the seller of good R, or that buyers pay all of the tax.

Write in the box the number of the question you are answering on this page as it is designated in the exam.

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- a) Marginal utility is the satisfaction gained from consuming one more unit of a product.
- b) Mandy should purchase more fudge and less coffee in order to maximize her utility. Currently, Mandy's marginal utility per dollar for her last pound of fudge is 6 while her marginal utility per dollar for her last pound of coffee is 5. In order to balance her marginal utility per dollar for her last pounds of fudge and coffee, she must buy more fudge and less coffee.
- c) (i) The numerical value of the price elasticity of demand for good R is 0.
(ii) If the government implements a per-unit tax of \$2 on good R, the seller will not pay any amount of the tax. Instead, the consumer of good R will bear the burden of the tax because of the inelastic demand.

(a) marginal utility is the additional utility obtained with the purchase of one additional unit of a product.

(b) Mandy should purchase more coffee and less Fudge because ~~there is~~ she will receive a higher total utility in doing so.

(c) (i) The numerical value of the price elasticity of demand is 0.

(ii) The seller will not pay any of the tax because the added costs will be spilled over ~~into~~ directly on to the consumers. The consumers are willing to pay any price, so the ~~the~~ sellers will have no trouble raising the price by \$2 per unit.

Write in the box the number of the question you are answering on this page as it is designated in the exam.

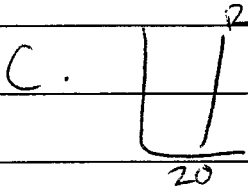
2.

20

2.

a. marginal utility is equal to marginal cost.

b. Mandy should purchase more fudge and less coffee because the marginal utility of the last pound of fudge is eight times less than the marginal utility of the coffee.



(i) The numerical value of the price elasticity of demand for good R is 20.

(ii) The seller will pay \$40 of the tax.

AP[®] MICROECONOMICS
2008 SCORING COMMENTARY

Question 2

Overview

The question tested students' understanding of marginal utility analysis and price elasticity of demand. Part (a) asked students to define marginal utility. Part (b) asked them to identify the change in consumption necessary to maximize utility given numerical values of marginal utilities and prices for two goods. Part (c) asked students to identify the numerical value of the price elasticity of demand and the burden of a per-unit tax given that elasticity.

Sample: 2A

Score: 5

All parts are correctly answered.

Sample: 2B

Score: 3

The student lost 2 points in part (b) for choosing coffee instead of fudge and for providing an incorrect explanation of utility maximization.

Sample: 2C

Score: 1

The student earned 1 point in part (b) for concluding that more fudge and less coffee should be purchased.