

# Student Performance Q&A: 2008 AP® Microeconomics Free-Response Questions

The following comments on the 2008 free-response questions for AP® Microeconomics were written by the Chief Reader, Arthur Raymond of Muhlenberg College in Allentown, Pennsylvania. They give an overview of each free-response question and of how students performed on the question, including typical student errors. General comments regarding the skills and content that students frequently have the most problems with are included. Some suggestions for improving student performance in these areas are also provided. Teachers are encouraged to attend a College Board workshop to learn strategies for improving student performance in specific areas.

## Question 1

## What was the intent of this question?

The question asked students to draw diagrams of a perfectly competitive firm and a market in long-run equilibrium and to determine the effect of a lump-sum subsidy in the short run and in the long run.

## How well did students perform on this question?

The mean score was 5.59 points, almost 47 percent of the maximum possible score of 12 points.

#### What were common student errors or omissions?

Students generally did not know that a lump-sum subsidy will have no effect on output in the short run because marginal cost (or marginal revenue) is not affected. Students also generally failed to recognize that the number of firms cannot change in the short run.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

Students should understand that marginal cost does not change as a result of lump-sum subsidies (or lump-sum taxes) and that, by definition, the number of firms in an industry is fixed in the short run.

#### Question 2

## What was the intent of this question?

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.

## How well did students perform on this question?

The mean score was 2.25, 45 percent of the maximum possible score of 5 points.

## What were common student errors or omissions?

The most common error was the inability to compare marginal utility relative to price (MU/P) in order to determine how consumption should be rearranged to maximize utility.

## Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

Emphasize that marginal utility per dollar spent (MU/P), not just marginal utility (MU), determines which good should be purchased.

### **Question 3**

## What was the intent of this question?

The question assessed the ability of students to understand pricing and output decisions under various conditions for a perfectly competitive market and for a natural monopoly. Part (a) asked students to draw a binding price ceiling in a competitive market and identify the quantity sold and the socially efficient output. Part (b) asked students to identify from a provided graph of a natural monopoly the profit-maximizing output and the socially efficient output and to identify profit or loss at the latter.

## How well did students perform on this question?

Students performed well on this question—the mean score was 4.08, 58.3 percent of the maximum possible score of 7 points.

## What were common student errors or omissions?

Scores were generally good for all parts of this question, but there was relative weakness in the identification of socially efficient output in part (a) and in the use of labeling from a provided graph to identify a loss in part (b)(ii).

Based on your experience of student responses at the AP Reading, what message
would you like to send to teachers that might help them to improve the performance of
their students on the exam?

Reinforce understanding of graphs of firms by requiring students to identify relevant areas, such as loss, profit, revenues, costs, and so forth.