



Student Performance Q&A: 2009 AP[®] Microeconomics Free-Response Questions

The following comments on the 2009 free-response questions for AP[®] Microeconomics were written by the Chief Reader, David A. Anderson of Centre College in Danville, Kentucky. 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?

This question tested students' ability to draw and work with a monopoly graph. Part (a) asked students to use a monopoly graph to determine profit-maximizing price and quantity, profit, and the socially optimal output level. Part (b) tested students' understanding that a lump-sum tax does not affect the profit-maximizing output level. Part (c) asked students to identify the quantity regulators would require in order to allow zero economic profits. Part (d) tested for an understanding of the difference between accounting profit and economic profit. Part (e) asked students about the effect of a positive externality on the socially optimal quantity.

How well did students perform on this question?

The mean score was 5.42, almost half of the maximum possible score of 11 points. Students did relatively well at drawing the graph and finding the profit-maximizing price and quantity. They did not do as well in explaining why a lump-sum tax does not change the profit-maximizing quantity or why accounting profit is positive when economic profit is zero.

What were common student errors or omissions?

Many students labeled axes, curves, or points (P^* and Q^*) incorrectly. Another common error was indicating the socially optimal level of cable services at the wrong quantity.

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 draw detailed graphs neatly over and over until they can do so flawlessly. In the monopoly graph, profits are the hardest element to render correctly. Distinctions between the graphs for monopolies and perfectly competitive firms should also be stressed. Students must be able to explain what shifts each curve on each graph. Knowing what shifts curves will also help students learn what *doesn't* shift them, as in the case of lump-sum taxes not shifting marginal cost.

Question 2

What was the intent of this question?

This question tested students' understanding of tax incidence, price elasticity, and allocative efficiency.

How well did students perform on this question?

The mean score was 2.09, about 35 percent of the maximum possible score of 6 points. Students did relatively well with calculating producer surplus and tax revenue. They did not do as well with determining the after-tax price that sellers keep, elasticity, and the effect of the tax on allocative efficiency.

What were common student errors or omissions?

Many students thought that the demand curve is unit elastic at equilibrium. Students also had difficulty explaining the repercussions of producing less than the allocatively efficient level of output.

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?

Exercises that require students to calculate elasticity levels and perform the total revenue test for elasticity would be helpful. Reminders of the basic formulas for the area of a rectangle and a triangle would also come in handy. And students should know the criteria for key types of efficiency, including allocative efficiency, production efficiency, and social efficiency.

Question 3

What was the intent of this question?

This question tested students' understanding of oligopolistic behavior in the context of game theory.

How well did students perform on this question?

The mean score was 3.67, about 61 percent of the maximum possible score of 6 points. Students did relatively well with reading and modifying the payoff matrix. They did not do as well with determining whether a dominant strategy exists and explaining why or why not.

What were common student errors or omissions?

The most common error was misidentifying a dominant strategy or failing to explain that a dominant strategy does not exist because Red Shop's strategy depends on Blue Mart's move.

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?

Give assignments that have students create their own payoff matrices that do and do not have dominant strategies. They should also be taught quick ways to identify dominant strategies (with the caveat that students who simply apply a trick to find such strategies but don't really understand them will lose points on questions like this, because they won't be able to explain the situation).