



Student Performance Q&A:

2006 AP[®] Microeconomics Free-Response Questions

The following comments on the 2006 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 tested students' ability to apply a number of microeconomic concepts to a museum facing a downward-sloping demand curve. Part (a) asked students to identify the prices (admission fees) and quantities (attendance) associated with different objectives of the museum. Part (b) asked them to determine the range for the price elasticity of demand given a specific quantity. Part (c) required an understanding of accounting and economic profits. In part (d) students were asked to identify museum attendance and explain the allocative efficiency implications when there is no admission charge to the museum.

How well did students perform on this question?

Student performance was relatively low. The mean score was 4.43, or about 40 percent of the maximum possible score of 11 points.

What were common student errors or omissions?

The most common error was the inability to understand the distinction between accounting and economic profits. Other common errors included the inability to identify the price that maximizes the sum of consumer and producer surplus and to understand allocative efficiency and inefficiency.

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?

It is important for students to understand that the cost curves used in economic analysis represent all opportunity costs so that any profit identified in the analysis is economic profit, which, because of implicit costs, will mean that economic profits are less than accounting profits. Also important is the understanding that allocative efficiency occurs where, in the absence of externalities, marginal cost equals marginal benefit (demand).

Question 2

What was the intent of this question?

The question tested students' ability to understand cost and short- and long-run profit maximization in perfect competition. Based on a given short-run cost function, students were asked in parts (a) and (b) to determine fixed cost and marginal cost. In part (c) they were asked to identify the profit-maximizing output and based on that information determine in part (d) how the number of firms in the industry would change. Part (e) required students to determine the effect of a per-unit tax on output in the long run.

How well did students perform on this question?

Students performed well; the mean score was 4.23, which is better than 60 percent of the maximum possible score of 7 points.

What were common student errors or omissions?

The most common error was the inability to determine that a per-unit tax in the long run would shift average total cost, marginal cost, and price by the same amount, leaving the profit-maximizing quantity unchanged. The next most common error was in understanding the $MC = MR$ rule for profit maximization.

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 have a complete understanding of the use of the MC and MR rule in maximizing profit. If $MC = MR$ cannot be achieved, as in this question, then production should increase as long as $MR > MC$, not that production should occur where MR is closest to MC. Students should also be able to work through the long-run effects of changes in taxes and other costs, as well as changes in demand.

Question 3

What was the intent of this question?

The purpose of the question was to test students' understanding of supply and demand and the effect of an external cost on allocative efficiency (a socially optimal outcome).

How well did students perform on this question?

Student performance was very good. The mean score was 3.90, which is 65 percent of the maximum possible score of 6 points.

What were common student errors or omissions?

A common error was students' inability to explain that in an unregulated market, the presence of an external cost means that $MSC > MSB$, which is not socially optimal. Another common error was in understanding how a change in subsidies to farmers will affect the supply of land for residential development.

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 must be well versed in the conditions necessary for allocative efficiency (a socially optimal outcome) and understand how an unregulated external cost produces allocative inefficiency. This is best explained using the concepts of marginal benefit (MB), marginal private cost (MPC), and marginal social cost (MSC).