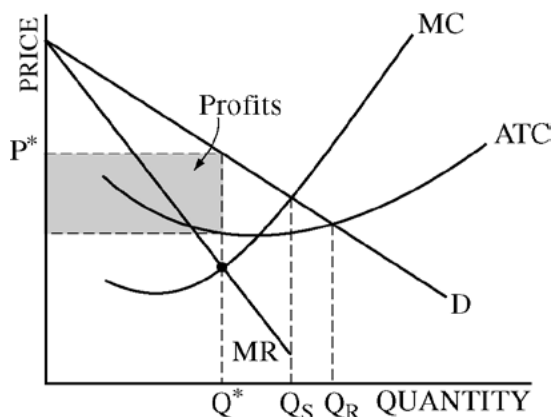# AP® MICROECONOMICS
2009 SCORING GUIDELINES

Question 1

11 points (5 + 2 + 1 + 2 + 1)

(a) 5 points:
- One point is earned for a correctly labeled graph for CableNow, with a downward-sloping demand curve and with the marginal revenue curve below the demand curve.
- One point is earned for identifying the profit-maximizing quantity of cable services, Q*, at MC = MR.
- One point is earned for identifying the profit-maximizing price of cable services, P*, on the demand curve above Q*.
- One point is earned for showing the area of economic profit, completely shaded.
- One point is earned for identifying the socially optimal level of cable services, Q_S, where the MC curve intersects the demand curve.

(b) 2 points:
- One point is earned for stating that the lump-sum subsidy will have no impact on the quantity of services CableNow produces.
- One point is earned for explaining that the lump-sum subsidy will not affect MC.

(c) 1 point:
- One point is earned for identifying the quantity of cable services, Q_R, where the ATC curve intersects the demand curve.

(d) 2 points:
- One point is earned for stating that accounting profit is positive.
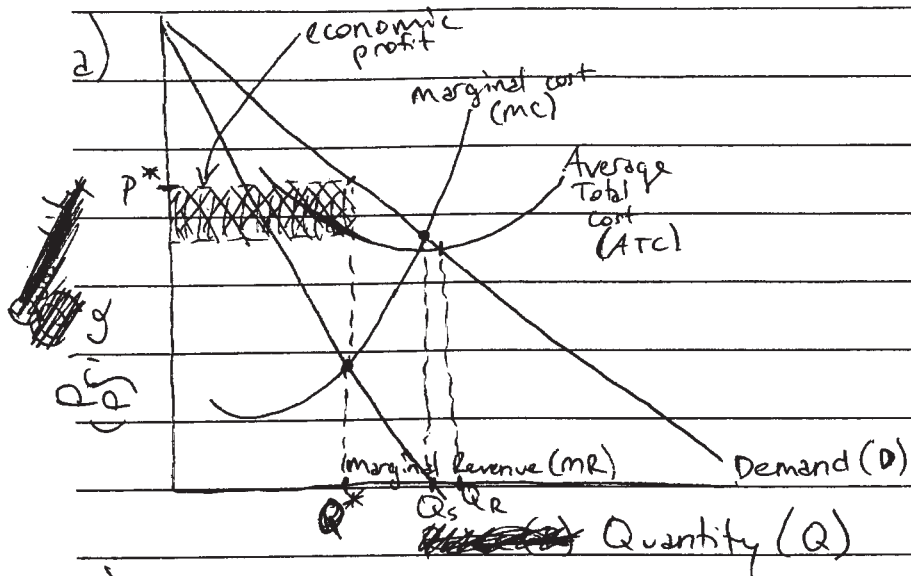- One point is earned for explaining that accounting profit excludes implicit costs.

(e) 1 point:
- One point is earned for stating that the socially optimal quantity will be larger than Q_S.

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

1

1A

a)

b) No. A lump sum subsidy will effect Average Fixed Costs (AFC)
and Average Total Cost (ATC). However, profit-maximization is
the point at which MC = MR, and since neither of these
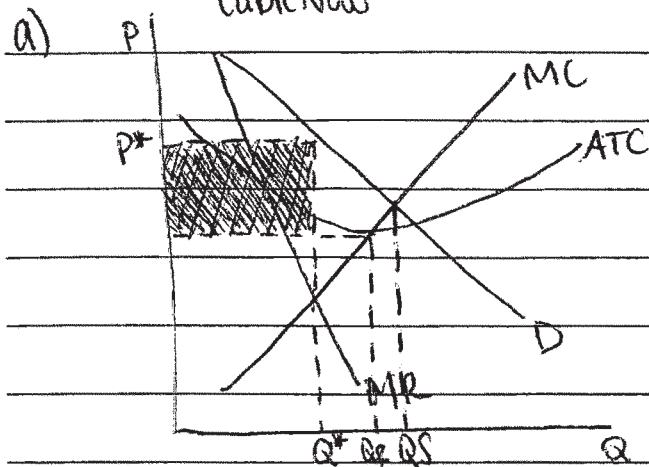curves shifts, there is no change in the profit-maximizing
quantity.

d) At Q_R, the firm's accounting profit is positive, because accounting
profits only ~~do~~ account for explicit costs, not implicit costs such as
opportunity costs, which are included in ATC. Since economic

e) Socially optimal level will now be larger. } profits are found using
the ATC, when economic
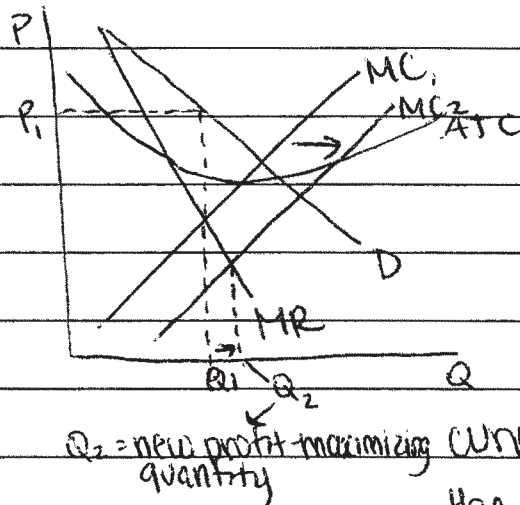profits are equal to 0, a firm will still earn accounting profits.

PAGE 1 OF 2

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

1   1B

a)

Cable Now

[Graph: P on vertical axis, Q on horizontal axis. Curves labeled MC, ATC, D, MR. P* marked with shaded rectangle. Q* or QR marked on horizontal axis.]

b) A lump-sum subsidy from the government of $1 million would increase Cable Now's profit maximizing quantity:

[Graph: P on vertical axis, Q on horizontal axis. Curves labeled MC₁, MC₂, ATC, D, MR. P₁ marked. Q₁, Q₂ marked on horizontal axis. Q₂ = new profit maximizing quantity]

because Cable Now's marginal cost curve is also their supply curve, and a government subsidy would shift supply to the right, the marginal cost curve shifts to the right, increasing the quantity supplied.

c) See graph on part (a)

d) At QR, the firm's accounting profit is positive because while the firm is earning zero economic profit, this takes into consideration the explicit (accounting) costs as well as implicit (economic) costs. Accounting profit, however, only takes explicit costs into consideration, making it greater than economic profit, and therefore greater than zero.

1

e) If it is found that there are external benefits associated with watching t.v., the socially optimum quantity will be larger than the quantity found in part (a)(iv). If external benefits are found, there will be an increase in demand for watching t.v. This will shift the demand curve for cable now to the right, increasing the socially optimal quantity where the firm's marginal cost or supply curve intersects with the demand curve.

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

| 1 |

1C

a.

Price   MC ATC

P*

FC

Q_R   Q* Q_S   Quantity
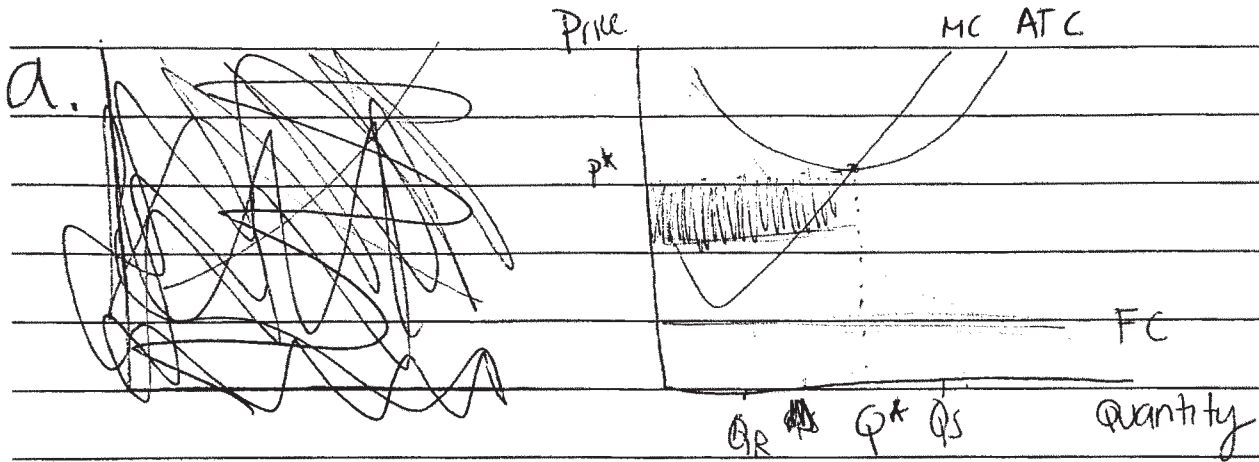
b. If the government grants CableNow a
lump-sum subsidy of $1 million,
the profit maximizing quantity
would stay the same because the
firm would still be producing at the
same place.

c. See graph

d. At Q_R, the firm's accounting profit is
positive. Although not making
economic profit, they still have
enough money to pay their workers,
etc.

e. Larger

AP® MICROECONOMICS
2009 SCORING COMMENTARY

Question 1

Overview

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.

Sample: 1A
Score: 11

The student earned all 11 points for this question.

Sample: 1B
Score: 7

The student earned 4 of the 5 part (a) points but lost 1 point in part (a)(iii) for improperly shading the economic profit by using the minimum point on the ATC. The student earned both points in part (d) for correctly explaining positive accounting profits. The student earned 1 point in part (e) for stating that the socially optimal output would be larger than Q_s.

Sample: 1C
Score: 3

The student earned 1 point in part (b) for stating that there is no impact on the profit-maximizing quantity resulting from the lump-sum subsidy. The student earned 1 point in part (d) for saying that accounting profits would be positive. The student earned 1 point in part (e) for stating the socially optimal output would be larger than Q_s.