

**AP<sup>®</sup> MICROECONOMICS  
2007 SCORING GUIDELINES**

**Question 3**

**6 points** (1 + 1 + 1 + 2 + 1)

(a) 1 point:

- One point is earned for identifying the market as an oligopoly, since there are only two firms and their actions are mutually interdependent.

(b) 1 point:

- One point is earned for stating that Rankin Wheels will choose early departure.

(c) 1 point:

- One point is earned for stating that Roadway's dominant strategy is early departure.

(d) 2 points:

- One point is earned for stating that early departure is not a dominant strategy for Rankin Wheels.
- One point is earned for reasoning that if Roadway chooses a late departure, Rankin Wheels is better off choosing a late departure.

(e) 1 point:

- One point is earned for identifying \$900 as Rankin Wheels' daily profit.

- A.) These firms operate within an oligopoly, in which there are few firms, barriers to entry, and heavy interdependence on the actions of other firms.
- B.) ~~In~~ In this scenario, an early departure is better for Rankin wheels.
- C.) Roadway's dominant strategy is to depart early in either scenario, as it will inevitably maximize profit for the situation.
- D.) No, it is not. An early strategy will not maximize profits in both scenarios. Leaving late will be better if Roadway leaves late. Due to this, Rankin Wheels has no dominant strategy.
- E.) Roadway will leave early, and thus Rankin wheels will also leave early. Hence Rankin wheels will make a daily profit of \$900.

3a) The companies are operating in a perfectly competitive market structure because there are multiple companies offering the same product.

3b) If Roadway is departing early, Rankin's Wheels should also depart early to make the most profit.

3c) Roadway's dominant strategy is to depart early because they make more profit regardless of Rankin's Wheels' decision.

3d) ~~A~~ No, because Rankin's Wheels has the opportunity to make more profit than Roadway if it departs late.

3e) Rankin's Wheels daily profit will be \$900.

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) They operate in the second market structure where roadway is at \$950.00 and Rankin at \$850.00. This is because they are paid the most at this level.

b) The late one making \$850.00.

c) Roadway's dominant strategy is to take the early route.

d) No ~~rather~~ choosing an early departure for Rankin is not a dominant strategy because their profits will decrease. They make less at an early departure ~~are~~ compared to a late departure.

e) ~~Then~~ Rankin's daily profit would be \$650.00.

**AP<sup>®</sup> MICROECONOMICS**  
**2007 SCORING COMMENTARY**

**Question 3**

**Overview**

The purpose of the question was to determine students' understanding of basic game-theory concepts.

**Sample: 3A**

**Score: 6**

The student earned all points in this question.

**Sample: 3B**

**Score: 4**

The student lost 1 point in part (a) for incorrectly identifying the market structure. The student lost 1 point in part (d) for an inadequate explanation of why leaving early is not Rankin Wheels' dominant strategy.

**Sample: 3C**

**Score: 2**

The student earned 1 point in part (c) for stating correctly Roadway's dominant strategy and 1 point in part (d) for concluding correctly that leaving early is not Rankin Wheels' dominant strategy.