REWARDING REAL-WORLD LEARNING

Choice

ECONOMICS MATERIALS FOR SUCCESS

Worksheet – Consumer and producer surplus

Related video: Pretty woman (1990) – Negotiation scene

***WARNING*: This movie/video is appropriate for college students, but may not be appropriate for high school students.**

Summary: This short worksheet could be used for in-class or homework practice. Students will be asked to watch the negotiation scene from the romantic comedy "Pretty woman" (1990) (2:29 min). Then, they will have to estimate the consumer, producer, and total surplus that the deal between Vivian and Edward generates. Answers are provided at the end of this document.

Learning objectives:

At the end of this worksheet, students will be able to:

- Estimate the consumer surplus (CS) given the actual price and consumer's maximum willingness to pay;
- Estimate the producer surplus (PS) given the actual price and the minimum price the producer is willing to accept;
- Calculate total surplus;
- Analyze when CS and PS could equal zero.

Economics concepts: Consumer surplus, Producer surplus, Total surplus, Willingness to pay

Questions

1. Vivian agrees to spend a week with Edward for $3,000. She says: “I would have stayed for 2,000.” How much producer surplus does the deal generate for Vivian?

   a. $5,000
   b. $3,000
   c. $2,000
   d. $1,000

2. Vivian agrees to spend a week with Edward for $3,000. He says: “I would have paid 4 [thousand dollars].” How much consumer surplus does the deal generate for Edward?

   a. $500
   b. $1,000
   c. $3,000
   d. $4,000

3. How much total surplus does the deal generate for Vivian and Edward?

   a. $1,500
   b. $2,000
   c. $4,000
   d. $6,000

4. What price would generate a producer surplus of $0 for Vivian?

   a. $1,000
   b. $2,000
   c. $3,000
   d. $4,000

5. What price would generate a consumer surplus of $0 for Edward?

   a. $1,000
   b. $2,000
   c. $3,000
   d. $4,000

6. Given that Vivian “would have stayed for 2,000 [dollars],” and Edward “would have paid 4 [thousand dollars],” which of the following ranges of prices is most likely to lead to a deal?

a. $500 to $1,000
b. $1,000 to $4,000
c. $2,000 to $4,000
d. $1,000 to $5,000

Answer Key

1. Vivian agrees to spend a week with Edward for $3,000. She says: “I would have stayed for 2,000.” How much producer surplus does the deal generate for Vivian?
   a. $5,000
   b. $3,000
   c. $2,000
   d. $1,000

Answer: D. Producer surplus (PS) is the amount Vivian receives minus the minimum price she is willing to accept, or (3,000 – 2,000), i.e., $1,000.

2. Vivian agrees to spend a week with Edward for $3,000. He says: “I would have paid 4 [thousand dollars].” How much consumer surplus does the deal generate for Edward?
   a. $500
   b. $1,000
   c. $3,000
   d. $4,000

Answer: B. Consumer surplus (CS) is the price paid minus the maximum Edward is willing to pay, or (4,000 – 3,000), i.e., $1,000.

3. How much total surplus does the deal generate for Vivian and Edward?
   a. $1,500
   b. $2,000
   c. $4,000
   d. $6,000

Answer: B. Total surplus is (CS + PS), i.e., $1,000 + $1,000 = $2,000.

4. What price would generate a producer surplus of $0 for Vivian?
   a. $1,000
   b. $2,000
   c. $3,000
   d. $4,000

Answer: B. Vivian says that she would accept $2,000. If the minimum price she is willing to accept equals the price she is paid, her CS would be $0.

5. What price would generate a consumer surplus of $0 for Edward?
   a. $1,000
   b. $2,000
   c. $3,000
   d. $4,000

Answer: D. Edward says that he would have paid $4,000. If the maximum price he is willing to pay equals the price he actually pays, then his PS would be $0.

6. Given that Vivian "would have stayed for 2,000 [dollars]," and Edward "would have paid 4 [thousand dollars]," which of the following ranges of prices is most likely to lead to a deal?
   a. $500 to $1,000
   b. $1,000 to $4,000
   c. $2,000 to $4,000
   d. $1,000 to $5,000

Answer: C. Vivian is willing to accept $2,000 or more, and Edward is willing to pay $4,000 or less. Therefore, in order for them to reach an agreement, the price has to be in the range from $2,000 to $4,000.