

DISCUSSION QUESTION

Name:

Instructor:

Course:

Why do sales or excise taxes reduce market efficiency?

PEER GROUP PROBLEM SOLVING

Name:

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Two consumers, John and Grayson, like to download songs to their phones. The table represents their willingness to pay for each downloaded song. If an individual song can be downloaded at a price of \$1, what is the total consumer surplus received by these consumers? Explain your answer.

Number of Song Downloads	John's Willingness to Pay	Grayson's Willingness to Pay
1	\$3.50	\$2
2	\$3.00	\$1.50
3	\$2.50	\$1.00
4	\$2.00	\$0.50
5	\$0.75	\$0.25

- a) \$15.50
- b) \$7.00
- c) \$7.50
- d) \$1.00

IN-CLASS EXPERIMENT / ACTIVE EXERCISE

Conduct an in-class auction to illustrate consumer surplus and producer surplus. Assign several students to be sellers/producers. They can be selling anything but some suggestions are tablets, smart phones, designer clothes, etc. Ask each seller to have a floor price, a price in which they will not sell their product any lower (WTS). Ask them to write this price down and not tell anyone. Then have the other students bid against each other (like an in-person eBay auction). Allow each student consumer to begin the auction with a fixed amount of money (budget). Set a time limit for the auction proceedings (will depend on class size).

SOLUTIONS AND INSTRUCTOR NOTES

Discussion Question

Why do sales or excise taxes reduce market efficiency?

As the firm's cost of doing business increases, the quantity supplied will decrease (producer surplus shrinks). As a result, the price of the product increases and quantity demanded decreases (consumer surplus shrinks). Thus, sales and excise taxes are allocative inefficient because they result in deadweight loss and reduction of consumer and producer surplus.

Peer Group Problem Solving

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Answer should be c, \$7.50. Neither consumer will purchase at a price above their willingness to pay so John will not purchase after the 4th song and Grayson will not purchase after the 3^d song. John's surplus is \$7.00 and Grayson's surplus is \$0.50 for a total surplus of \$7.50.

In-Class Experiment / Active Exercise

Conduct an in-class auction to illustrate consumer surplus and producer surplus. Assign several students to be sellers/producers. They can be selling anything but some suggestions are tablets, smart phones, designer clothes, etc. Ask each seller to have a floor price, a price in which they will not sell their product any lower (WTS). Ask them to write this price down and not tell anyone. Then have the other students bid against each other (like an in-person eBay auction). Allow each student consumer to begin the auction with a fixed amount of money (budget). Set a time limit for the auction proceedings (will depend on class size).

Once the auction ends, it will be easy to determine if there is any consumer or producer surplus. Discuss willingness-to-pay (WTP), willingness-to-sell (WTS), and total surplus. Highlight the necessary condition that for trade to take place, the consumer's WTP must exceed the

producer's WTS and that total surplus must be greater than zero for both producers and consumers.

For more in-class experiment and active learning ideas, visit www.econedactive.com.