Taxes IV: The Price Isn't Right | Worksheet

Matching

Match the definition in Column A with the term in Column B.

Column A	Column B
__________ Lost value when trades don't happen.	a. Price Destortion
__________ Where supply and demand are equal.	b. Equilibrium
__________ Price changes that hide the true market cost.	c. Sales Tax
__________ Extra cost added to a purchase.	d. Deadweight Loss
__________ Yearly tax based on home or land value.	e. Property Tax

Multiple Choice

1. **When a new sales tax is added to a product, what usually happens in the market?**
   a. Demand and supply both rise.
   b. Demand falls, and supply rises.
   c. Demand and supply both fall.
   d. Demand rises, but supply falls.
2. **Why do economists see deadweight loss as harmful?**
   a. It means the government collects less tax.
   b. It represents trades that no longer happen.
   c. It occurs only when taxes are very high.
   d. It creates more government spending.
3. **If buyers are very sensitive to price changes, who pays more of a tax?**
   a. The seller.
   b. The buyer.
   c. Both equally.
   d. The government.
4. **What effect can high property taxes have over time?**
   a. More people buy homes.
   b. Home prices stay the same.
   c. Fewer homes are bought or sold.
   d. Property values rise faster.

Application

A 20 fl. oz. bottle of soda costs $3.99 before tax. In your city, the sales tax is 9.75%, and a new 10% "sugary drink tax" is added on top of that.

1. Calculate the total price a customer would pay for the soda after both taxes are applied.
2. Explain how this higher price might affect:
   - Consumers (their buying choices or habits)
   - Businesses (sales, revenue, or pricing decisions)
   - Overall market activity (supply, demand, or efficiency)

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Taxes IV: The Price Isn't Right | Answer Key

Matching

Match the definition in Column A with the term in Column B.

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b. Where supply and demand are equal.	b. Equilibrium
a. Price changes that hide the true market cost.	c. Sales Tax
c. Extra cost added to a purchase.	d. Deadweight Loss
e. Yearly tax based on home or land value.	e. Property Tax

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Sample Answer Key

Economic reasoning:

- *Consumers may buy fewer sodas or switch to untaxed alternatives (water, diet drinks, etc.).*
- *Businesses could lose sales or raise prices on other items to offset revenue loss.*
- *The soda market experiences **deadweight loss** as fewer transactions occur, resulting in a loss of potential value for both buyers and sellers.*

Guidance for Grading

- [ ] **Mathematical Accuracy**: The student correctly calculates both taxes and the final price:
    - [ ] Sales tax = 9.75% of $3.99 = **$0.39**
    - [ ] Sugary drink tax = 10% of $3.99 = **$0.40**
    - [ ] Total tax = **$0.79**
    - [ ] Final price = **$4.78**
- [ ] **Economic Reasoning**: The student accurately explains the **consumer response**, noting that higher prices lead to reduced demand or substitution toward untaxed goods (like water or diet drinks). The student identifies the **business impact**, such as lower sales volume, decreased revenue, or potential price adjustments on other products. The student connects these effects to **market outcomes**, explaining that fewer transactions occur, resulting in **deadweight loss**—a loss of total economic value.
- [ ] **Clarity and Depth:** The response uses correct economic terminology (e.g., *price distortion, demand, deadweight loss*). The explanation is logical, clear, and complete, demonstrating an understanding of both the numerical and conceptual aspects of the question.