## Unit 4 Lesson 10: Tax and Tip

### 1 Notice and Wonder: The Price of Sunglasses (Warm up)

#### Student Task Statement

You are on vacation and want to buy a pair of sunglasses for $10 or less. You find a pair with a price tag of $10. The cashier says the total cost will be $10.45.



What do you notice? What do you wonder?

### 2 Shopping in Two Different Cities

#### Student Task Statement

Different cities have different sales tax rates. Here are the sales tax charges on the same items in two different cities. Complete the tables.

City 1

|  |  |  |  |
| --- | --- | --- | --- |
| item | price(dollars) | sales tax(dollars) | total cost(dollars) |
| paper towels | 8.00 | 0.48 | 8.48 |
| lamp | 25.00 | 1.50 |  |
| pack of gum | 1.00 |  |  |
| laundry soap | 12.00 |  |  |
|  | $x$ |  |  |

City 2

|  |  |  |  |
| --- | --- | --- | --- |
| item | price(dollars) | sales tax(dollars) | total cost(dollars) |
| paper towels | 8.00 | 0.64 | 8.64 |
| lamp | 25.00 | 2.00 |  |
| pack of gum | 1.00 |  |  |
| laundry soap | 12.00 |  |  |
|  | $x$ |  |  |

### 3 Shopping in a Third City (Optional)

#### Student Task Statement

Here is the sales tax on the same items in City 3.

|  |  |  |
| --- | --- | --- |
| item | price(dollars) | sales tax(dollars) |
| paper towels | 8.00 | 0.58 |
| lamp | 25.00 | 1.83 |
| pack of gum | 1.00 | 0.07 |
| laundry soap | 12.00 |  |

1. What is the tax rate in this city?
2. For the sales tax on the laundry soap, Kiran says it should be $0.84. Lin says it should be $0.87. Do you agree with either of them? Explain your reasoning.

### 4 Dining at a Restaurant

#### Student Task Statement

1. Jada has a meal in a restaurant. She adds up the prices listed on the menu for everything they ordered and gets a subtotal of $42.00.
* 
	1. When the check comes, it says they also need to pay $3.99 in sales tax. What percentage of the subtotal is the sales tax?
	2. After tax, the total is $45.99. What percentage of the subtotal is the total?
	3. They actually pay $52.99. The additional $7 is a tip for the server. What percentage of the subtotal is the tip?
1. The tax rate at this restaurant is 9.5%.
* 
* Another person’s subtotal is $24.95. How much will their sales tax be?
* Some other person’s sales tax is $1.61. How much was their subtotal?



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