Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CFS for top quality work**

* + Problem is annotated for **quantity**, **whole**, and **percent change**
  + DNL is drawn to represent the problem
  + Percent equation is **written** and values are **substituted** to solve for the **unknown**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

UNIT 6 LESSON 10

**AIM**: SWBAT solve problems with tax, tip, and commission

**THINK ABOUT IT!**

Mary and Ty go out to lunch. When they get their check, they see that their total bill with tax is $50.25. Mary and Ty had good service and decided to leave the wait staff a 20% tip on the total cost of the meal. What was the total amount of money that Mary and Ty spent on lunch?

Key Point:

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| \_\_\_\_\_\_\_\_\_\_\_\_\_ determines whether to find a “percent change” or a “percent of” in real-world problems. |

**Interaction with New Material:**

Ex. 1) A car dealership pays its salespeople on commission. For every car that they sell, they earn 2.5% of the cost of the car before tax. Personal property tax for vehicles is 4.25%. If a salesperson sells a Honda CRV for $28,700, how much will the car be with tax and how much will the salesperson make on commission?

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**PARTNER PRACTICE**

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| *Bachelor Level* |

1. Mr. Cameron took a cab from school to JFK airport. The total cab fare was $52. Mr. Cameron gave the cab driver a 25% tip. How much was his total bill?

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1. Yesterday Elijah went to the store and bought a pack of note cards for $3.80. If the tax was 7%, how much did he pay for the note cards?

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| *Master Level* |

1. You work as a car salesman and make 20% commission on all sales. On Monday, you sell three cars for $25,500 each. How much commission do you make?

1. At H&M there is a 6% sales tax on all purchases. Amanda bought a jacket for $30.50 and a scarf for $4.50. How much tax did she pay?

**INDEPENDENT PRACTICE**

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| *Bachelor Level* |

1. Last weekend, Mrs. Raymond went out to dinner with her husband. Their bill came to $73. They had good service, so they wanted to leave an 18% tip. How much should they leave altogether?

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1. If Ms. Dukes sold $150,000 worth of cars last June, how much money would she take home if she made 9% commission?

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| *Master Level* |

1. You work at a department store and make $9 per hour plus 12% commission on all sales. On Friday, you work 6 hours and sell $700. Which statements below are true? Select all that apply.

a) You make $54 before sales

b) You make $784 in commission

c) You make $84 in commission

c) You make $84 in total

d) You make $138 in total

1. Mr. Woodruff went to dinner with some of his friends. The bill came to $143. Then the restaurant added 8.5% tax. When Mr. Woodruff got the bill (after the tax had been added), he decided to give the waiter a 20% tip. How much did Mr. Woodruff spend altogether?
2. Mr. Chalfin went on a shopping spree the other day. He bought a hat at Lids that was $32 with a sales tax of 5%. After buying his hat, he went to Champs and bought a pair of sneakers for $85 with a sales tax of 8%. How much did Mr. Chalfin spend all together?
3. Mr. Roble earns commission for selling cars. He has the option to make $3,500 plus 2% commission or $1,200 plus 11% commission. If sells about $35,000 worth of cars each week, which option should he choose?

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| *PhD Level* |

1. Rebecca was at dinner and was trying to figure out how much money to leave the waitress. The bill, before tax, was $87. The tax was 5%, and then Rebecca left an 18% tip. To do this, Rebecca added 5% and 18%, which was 23%. She knew that she had to add 23% of the total to the bill so she multiplied 87 by 1.23 and got $107.01 as the total. Do you agree with Rebecca? Explain.

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1. In general, if you are finding the percent of a percent (the tip on a bill that already has had tax added, for example) can you simply add the percents together to find the multiplier? Explain.

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**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXIT TICKET**

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| Self-assessment | I mastered the learning objective today. | I am almost there. | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there. | You need more practice and feedback. |

1. Luci and her friends go out to lunch and receive a bill for their meals that reads $56.80. How much would the entire lunch cost if they added a 19% tip to their bill rounded to the nearest cent? How much money would the server make?

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1. Yenni works for an electronics store where she receives an 8% commission for every sale that she makes. In the morning she sells one $450 tv. In the afternoon, she sells 2 iPhones for $550 each. Reach each statement below and determine whether it is “true” or “false.”

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| --- | --- | --- |
| Statement | True | False |
| She sells a total of $1550 of electronics |  |  |
| She makes a total of $1550 in commission |  |  |
| She makes $1240 in commission |  |  |
| She makes $124 in commission |  |  |