

Objective

Calculating Tips, Commissions, and Simple Interest

Warm-Up



Express each percent as a decimal and as a fraction.

1. 57%

Sample worked out

Percent to decimal

Percent to Fraction



57% → 57%  
 Move the decimal place  
 ONLY 2 places  
 to the left  
 57.  
 0.57

57% →  $\frac{57}{100}$

The % symbol indicated that the denominator is 100

2. .8%

3. 123.5%

4. 0.0105%

5. 3.879%



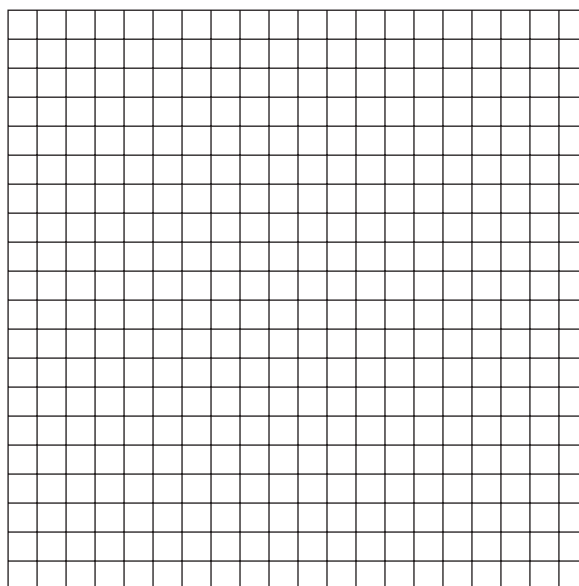
A car salesperson makes a 10% commission on each sale. A salesperson's commission is proportional to the cost of the products sold.

**1. Complete the table to show the relationship between the price of a car and the commission the salesperson receives.**

Price (dollars)	Commission (dollars)
0	
9000	
15,000	
	1000
18,000	
	2000

To help with sales goal-setting, the salesperson wants to create a visual to display in the office.

**2. Graph the relationship between the price of a car and the commission received.**



**3. Explain how the graph illustrates that the relationship between car price and commission is proportional.**

**4. Define the variables and write the equation that represents the relationship between the price of a car and the commission received.**

**5. How much commission will the salesperson earn for selling a \$25,000 car? Determine the commission using your equation.**

**6. If the salesperson earned a \$1250 commission, what was the price of the car? Determine the price of the car using your equation.**

## Show You KNOW

Where's Bob?

Each of the restaurant receipts shown includes a missing meal total of a guest who paid a specific percent of the total bill. The tip amount for each table is also provided. Use the receipts to answer the questions.

### Table 1

Guest 1:  
Guest 2: \$18.00  
Guest 3: \$12.00  
Tip: \$4.96

### Table 2

Guest 1: \$38.45  
Guest 2: \$34.81  
Guest 3:  
Tip: \$14.65

### Table 3

Guest 1: \$18.22  
Guest 2:  
Guest 3: \$41.00  
Tip: \$11.74

### Table 1

Guest 1: \$35.11  
Guest 2: \$35.05  
Guest 3:  
Tip: \$15.90

**1. Bob ate at a restaurant one night with 2 friends. The cost of his meal was 10% of the total food bill but not clearly shown on the receipt. He knows that his group tipped either 15% or 18%, but he's not sure which. At which table did Bob sit and what was the cost of his meal? What percent did his table tip?**

**2. Assume, instead, that the mystery guest at each table paid 20% of the total bill. Determine the total bill and what percent tip each table gave their waitstaff.**



**LESSON 4.2c**  
**Perks of Work**



Objective

**Calculating Tips, Commissions, and Simple Interest**

For each commission situation, define variables for the varying quantities, write a percent equation to represent the relationship, and then answer the question. **SHOW ALL CALCULATIONS**

**1. If a car salesman made \$2450 from a 12% commission on a car sale, what is the cost of the car he sold?**

**2. A real estate agent made \$7500 on a \$150,000 home sale. What was the percent of her commission?**

