

Lesson 8 Practice Problems

1. A car dealership pays \$8,350 for a car. They mark up the price by 17.4% to get the retail price. What is the retail price of the car at this dealership?

2. A store has a 20% off sale on pants. With this discount, the price of one pair of pants before tax is \$15.20. What was the original price of the pants?
 - A. \$3.04
 - B. \$12.16
 - C. \$18.24
 - D. \$19.00

3. A music store marks up the instruments it sells by 30%.
 - a. If the store bought a guitar for \$45, what will be its store price?

 - b. If the price tag on a trumpet says \$104, how much did the store pay for it?

 - c. If the store paid \$75 for a clarinet and sold it for \$100, did the store mark up the price by 30%?

4. A family eats at a restaurant. The bill is \$42. The family leaves a tip and spends \$49.77.

a. How much was the tip in dollars?

b. How much was the tip as a percentage of the bill?

5. The price of gold is often reported per ounce. At the end of 2005, this price was \$513. At the end of 2015, it was \$1060. By what percentage did the price per ounce of gold increase?

6. A phone keeps track of the number of steps taken and the distance traveled. Based on the information in the table, is there a proportional relationship between the two quantities? Explain your reasoning.

number of steps	distance in kilometers
950	1
2,852	3
4,845	5.1

(From Unit 5, Lesson 4.)

7. A college student takes out a \$7,500 loan from a bank. What will the balance of the loan be after one year (assuming the student has not made any payments yet):

a. if the bank charges 3.8% interest each year?

b. if the bank charges 5.3% interest each year?

(From Unit 6, Lesson 6.)

8. Match the situations with the equations.

a. Mai slept for x hours, and Kiran slept for $\frac{1}{10}$ less than that.

$$y = 2.33x$$

$$y = 1.375x$$

b. Kiran practiced the piano for x hours, and Mai practiced for $\frac{2}{5}$ less than that.

$$y = 0.6x$$

$$y = 0.9x$$

c. Mai drank x oz of juice and Kiran drank $\frac{4}{3}$ more than that.

$$y = 0.75x$$

$$y = 1.6x$$

d. Kiran spent x dollars and Mai spent $\frac{1}{4}$ less than that.

$$y = 0.7x$$

$$y = 2.5x$$

e. Mai ate x grams of almonds and Kiran ate 1.5 times more than that.

f. Kiran collected x pounds of recycling and Mai collected $\frac{3}{10}$ less than that.

g. Mai walked x kilometers and Kiran walked $\frac{3}{8}$ more than that.

h. Kiran completed x puzzles and Mai completed $\frac{3}{5}$ more than that.

(From Unit 6, Lesson 2.)