



Name: Kelly

Date: February 19, 2016

Homeroom:

7<sup>th</sup> Grade Math:  
Unit: Percents

Packet 89:  
Percent Problem  
Solving 1

### Objectives:

- ✓ Scholars will be able to write and solve percent equations from word problems.

### Agenda:

1. Review Do Now
2. Percent Equation Review
3. Commission
4. Guided Practice
5. Independent Practice
6. Exit Ticket
7. Homework Overview

### Homework 89: Percent Problem Solving

### Do Now:

1. A school had 825 students enrolled last year. This year, 870 students are enrolled. Find the percent of change to the nearest tenth.

A. 94.8% increase      ① increase \* (cross out C & D)

B. 5.5% increase      ② o: ~~870~~ 825  
n: 870

~~C. 5.5% decrease~~      ③  $870 - 825 = 45$

~~D. 5.2% decrease~~      ④ ~~870~~  $\frac{45}{825} = 5.5\%$   
increase

2. In 1991, the price of a hot dog at a Texas baseball stadium was \$1.25. In 2001, the price of a hot dog at the stadium was \$2.25. By what percent did the price change from 1991 to 2001?

A. 45%      ① increase

B. 2.2%      ② o: 1.25  
n: 2.25

C. 0.45%      ③  $2.25 - 1.25 = 1$

D. 222.2%      ④  $\frac{1}{1.25} = 80\%$

## Percent Equation Review

$$\text{Part} = \text{Percent} \times \text{Whole}$$

## Commission

Some jobs, like being a teacher, pay a salary which means you earn a fixed amount of money. Some sales jobs pay an amount based on how much you sell. This is called commission.

1. What advantages would a job that pays on commission have?

2. What disadvantages would a job that pays on commission have?

3. Would you rather have a job that pays on commission or pays a salary?

**Guided Practice**

~~★ Ann Pro~~  
might skip

1. Erica is interviewing for a pharmaceutical sales position with a medical company. At the interview, they ask her if she would like a salary based position or a commission based position. She is informed that the salary would be \$80,000 annually and the commission percent is 5% on each sale. How much does Erica have to sell to make a sales commission equal to the salary of \$80,000 a year? Would it be better to take the salary or commission? Why?

$$80,000 = 5\% \times W$$

$$\$ 1,600,000$$

★ salary is probably better



2. A real-estate agent makes a 2.5% commission on the property she sells. To the nearest dollar, how much commission does she make on the sale of a house for \$132,500?

$$132500 \times 2.5\%$$
$$\$ 3312.50$$

3. You earn a weekly salary of \$200 plus a 3% commission on the total value of the sales made in the week. This week, your sales total \$2000. What are your total earnings for the week?

$$2000 \times 3\% = 60$$

$$200 + 60$$

$$\$ 260$$

4. A salesperson receives a 5.4% commission. On one sale, she received \$6.48. What was the amount of the sale?

$$6.48 = 5.4\% \times W$$

$$W = \$ 120$$

## Independent Practice

1. A sports agent makes 15% commission on an athlete's signing bonus. If the bonus is \$26,000, what is the agent's commission?

$$26,000 \times .15$$
$$\$ 3900$$

2. A singer receives a 5% royalty on each CD sale. To the nearest cent, find his royalty for a CD that sells for \$16.99.

$$16.99 \times 5\%$$
$$\$ 17.04$$

3. Julian writes novels and receives 12% of the price for each book sold. To the nearest cent, find the royalty Julian receives for a book price of \$7.99.

$$7.99 \times 12\%$$
$$\$ 0.96$$

4. Chan's team won 70% of the 20 games it played. Latisha's team played 15 games and won 80% of them. Whose team won more games?

$$20 \times 70\%$$

$$14$$

★

$$15 \times 80\%$$

$$12$$

5. In a survey, 952 people, or 68%, preferred smooth peanut butter to chunky. How many people were surveyed?

$$952 = 68\% \times w$$

$$w = 1400 \text{ people}$$

6. A car salesperson earns a 6.5% commission on every car sold. The salesperson sells a car for \$21,800. What is the commission?

$$21,800 \times 6.5\%$$

$$\$ 1417$$

7. A sales person earns a 4% commission on the sale of televisions. If the sales person's television sales total \$7000, what is his commission?

$$7000 \times 4\%$$

$$\$ 280$$

8. You earn a weekly salary of \$2000 plus a 3% commission on the total value of the sales made in the week. This week, your sales total \$2000. What are your total earnings for the week?

$$2000 \times 3\% = \$ 60$$

$$2000 + 60 = \$ 2060$$



9. A sales person earns 3.6% commission on the total value of sales made in the week. The table shows the total value of the sales for each week in a month.

Week	Total value of sales
1	\$2100
2	\$1950
3	\$2250
4	\$2170

\$ 304.92

- a. Find the amount of money the salesperson earned from commission.



- b. If the salesperson also earned a weekly salary of \$210, how much money did she earn this month?

$$210 + 304.92 = \$ 514.92$$

10. There are 20 marbles in a bag, and 35% of them are green. You put 6 more green marbles in the bag. What percent of the marbles in the bag are now green?

~~20~~

$$20 \times .35 = 7$$

$$\frac{13}{26} = 50\%$$

# Practice beyond Perfection-Turn in for Dollars!

## WHAT IS A FALSEHOOD?

TO ANSWER THIS QUESTION, FOLLOW THESE DIRECTIONS:

Fractions appear on two sides of the rectangle below, and their decimal equivalents appear on the other two sides. Draw a STRAIGHT LINE connecting each fraction to its decimal equivalent.

When you finish, you will notice that some areas in the rectangle contain an "S," which stands for "shade." Shade in all of these areas. The answer to the title question will appear!

