

NAME _____

CLASS PERIOD _____

PERCENTS – Notes and Homework: DUE ON EXAM

Percentage problems require limited, but important knowledge. When given a percent, you must convert it to a decimal or fraction before you can do any math calculations.

Percent to Decimal:

Move the decimal 2 places to the left – divide the percent number by 100.

Decimal to Percent:

Move the decimal 2 places to the right – multiply the percent by 100.

Fraction to Percent:

Change to a decimal and move the decimal point 2 places to the right – divide and multiply by 100.

Let's look at 1 dollar.

- 50% of a dollar is _____ (cents). Yes, move the decimal 2 places to the left.
- 50 cents or .50 is _____ percent of a dollar. Yes, move the decimal 2 places to the right.
- $\frac{1}{2}$ of a dollar is _____ (cents), yes, we divided, now move the decimal 2 to the left and we get _____ %.

Percent problems come in basically one type of problem. You will need to fill in the information and solve.

- A number is a percent of another number.
 - # = % \times #
 - _____ = _____ \times _____
- example:** Joe sells cars. He gets paid a percent (commission) of the price of the cars he sells. Joe gets paid 3% and sells \$50,000.

$$\begin{aligned} \text{pay} &= \% \times \text{price} \\ x &= .03 \cdot 50,000 \rightarrow x = 1500 \end{aligned}$$

Joe makes 4% and made \$2000

$$\begin{aligned} \text{pay} &= \% \times \text{price} \\ 2000 &= .04 \times x \rightarrow \frac{2000}{.04} = 50,000 \end{aligned}$$

Joe made \$3600 and sold \$45,000

$$\begin{aligned} \text{pay} &= \% \times \text{price} \\ 3600 &= \% \times 45000 \rightarrow \frac{3600}{45000} = .08 = 8\% \end{aligned}$$

just fill in the blanks and solve!

PERCENT HOMEWORK

NAME _____

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A number is a percent of a number.

$$\# = \% \times \#$$

This formula works for all percents. Just fill in the blanks and solve.

Write each percent as a decimal and as a fraction.

1. 17%

2. 22%

3. 68%

4. 2.5%

5. 140%

6. $\frac{1}{2}$ %

Write each decimal or fraction as a percent.

7. 0.28

8. $\frac{13}{50}$

9. $\frac{19}{10}$

Find each value. Round to the nearest tenth if necessary.

10. 3% of 100

11. 100% of 3

12. 80% of 20

13. 115% of 6

14. What percent of 128 is 32?

15. 3 is what percent of 36?

16. 23.7 is 30% of what number

17. $7\frac{1}{2}$ % of what number is 12?

And our real live TAKS problems:

18. According to the US Census, Virginia had about 7.1 million residents in 2000. Of those, 24.6% were under the age of 18. To the nearest tenth of a million, how many Virginia residents were under the age of 18 in 2000?

Answer_____

19. A CD-ROM has 700 megabytes of storage space. What percent of the space is used by a file that takes up 154 megabytes?

Answer_____