

Name _____

Pre-Algebra Notes
Week 7: Lessons 7.1 and 7.2

Percent and Fractions (7.1)

Math Vocab.

1. percent- a _____ whose denominator is _____
% - "per hundred"

$$\frac{85}{100} =$$

$$\frac{46}{100} =$$

Example

1. Writing Percents as Fractions, Fractions as Percents

Write 29% and 45% as fractions in simplest form

a. 29% =

b. 45% =

Write $\frac{7}{10}$ and $\frac{3}{5}$ as percents

a. $\frac{7}{10}$

b. $\frac{3}{5}$

Extra Practice

Common Percents

$10\% = \frac{1}{10}$	$20\% = \frac{1}{5}$	$25\% = \frac{1}{4}$	$30\% = \frac{3}{10}$	$40\% = \frac{2}{5}$	$50\% = \frac{1}{2}$
$60\% = \frac{3}{5}$	$70\% = \frac{7}{10}$	$75\% = \frac{3}{4}$	$80\% = \frac{4}{5}$	$90\% = \frac{9}{10}$	$100\% = 1$

Probabilities can be written as percents between 0% (for an impossible event) and 100% (for an event that is certain to occur)

2. Writing Probability as a Percent

A radio station randomly selects 1 of 5 finalists for a prize.. You are one of the finalists. What is the probability that you will win? Write your answer as a percent

P (you win) =

3. Finding Percent of a Number

A desert tortoise can go a year or more without drinking water. When it does drink, its body weight can increase by 40%. Suppose a desert tortoise weighs 15 pounds after a long period without water. How many pounds can the tortoise gain when it drinks?

Extra Practice

Percents and Proportions (7.2)

$$\frac{\textit{part}}{\textit{base}} \qquad \frac{a}{b} = \frac{p}{100} \qquad \text{“ } a \text{ is } p \text{ percent of } b \text{”}$$

Example

1. Finding a Percent

What percent of 7 is 4?

$$\frac{a}{b} = \frac{p}{100}$$

Extra Practice

- What percent of 72 is 54?

- What percent of 35 is 7?

2. Finding a Part of a Base

What number is 24% of 200?

$$\frac{a}{b} = \frac{p}{100}$$

3. Finding a Base

In a heptathlon, an athlete earns points in seven track-and- field events. Suppose an athlete earns 836 points in the 100 meter hurdles. This score makes up 16% of the total score. What is the total score?

$$\frac{a}{b} = \frac{p}{100}$$

Extra Practice

- What number is 18% of 50?
- 105 is 84% of what number?

3 Types of Percent Problems

Percent Problem	Example	Proportion
Find a percent	What percent of 48 is 12?	$\frac{12}{48} = \frac{p}{100}$
Find a part of a base	What number is 15% of 80?	$\frac{a}{80} = \frac{15}{100}$
Find a base	20 is 30% of what number?	$\frac{20}{b} = \frac{30}{100}$

