

Algebra I
Lesson 2.8 - Percents
Mrs. Snow, Instructor

In order to keep your "A" grade, you needed a 90% on your quiz. Did you get a 90%? Your score was given to you as $\frac{36}{40}$? How do you get a percent? When an advertisement says the product is 98% pure, what does that mean? This is where understanding what a percent is and how to calculate it are important.

Vocabulary:

Percent – is a ratio that compares a number to 100. So $90\% = \frac{90}{100}$ (think about the line in the percent sign as the fraction line and the zeros are the zeros in the 100)

OK!! So that means we can our ratio grade of 36 points out of 40, set it equal to a ratio of an unknown out of 100 and calculate our percent grade:

$\frac{36}{40} = \frac{x}{100}$ $5 \cancel{(100)} \frac{36}{40} 2 = \frac{x}{100} \cancel{(100)}$ <p>ans 90 = x (cool you kept you're A!)</p>	<ol style="list-style-type: none"> 1. write your score (fraction) as a proportion where it is equal to the missing value over 100 2. solve for x 3. reduce before you multiply!
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There are a lot of ways we will see problems involving percents. Using proportions is a great way to find the missing value. Don't forget, you can also translate the question into a math equation:

<p>What is 50% of 20?</p> $x = \frac{50}{100} \times 20$ $x = 10$	<ol style="list-style-type: none"> 1. Translate "what" to a variable 2. Translate "is" to = 3. Write the % as a ratio 4. Translate "of" to \times, multiply 5. Solve
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Solve:

Find 20% of 60

What is 210% of 8?

Find 4% of 36

What percent of 35 is 7? } 27 is what percent of 9? } 40% of what number is 14? } 120% of what numbe is 900?

