MATH
Where Math Gets Real™

Name: _____

★ CENTER II ★
Finding Percents With Fractions

In "How Google Doodles" on page 4, you learned that a percent is a ratio that compares a number to 100. You can also write these ratios as fractions. When the denominator of the fraction in lowest terms is a factor of 100, you can scale the fraction to find the equivalent percent.

EXAMPLE:

Aidan is at school for 6 hours every day. For what percent of the day is Aidan at school?

STEP 1: Write a ratio in fraction form, where the part is the numerator and the whole is the denominator. Here, the part is the amount of time Aidan is at school, and the whole is the total number of hours in a day.

$\dfrac{\text{6 hours}}{\text{24 hours}}$ ◄—— part of the day
◄—— length of a whole day

STEP 2: Rewrite the fraction in lowest terms.

$$\frac{6 \div 6}{24 \div 6} = \frac{1}{4}$$

STEP 3: Rewrite the fraction as an equivalent fraction with a denominator of 100. The numerator of the resulting fraction will be the equivalent percent.

$$\frac{1 \times 25}{4 \times 25} = \frac{25}{100}$$

So Aidan is at school for 25% of the day.

YOUR TURN ✎

1. There are 25 students in Ms. Miller's class. 15 of the students are boys. What percent of the class is boys?
A. Write the ratio in fraction form.

B. Is the denominator of the fraction a factor of 100? If not, rewrite it as an equivalent fraction in lowest terms.

C. Find the percent.

2. The Rangers, a middle school basketball team, played 30 games this season. They won 9 of those games. What percent of their games did the Rangers win?
A. Write the ratio in fraction form.

B. Is the denominator of the fraction a factor of 100? If not, rewrite it as an equivalent fraction in lowest terms.

C. Find the percent.

3. Robert buys a sweater for $50. Six dollars of this total cost is tax on the item. What is the tax rate for the purchase?

4A. Gina makes trail mix for her camping trip this weekend. She mixes 3 cups of peanuts, 1 cup of almonds, 2 cups of pretzels, and 2 cups of chocolate chips. What percent of Gina's trail mix is chocolate chips?

B. Challenge: What percent of the trail mix is almonds?