NAME_____

Module 7 **Ratio, Proportion, and Percent**
Lesson 2 **Finding Percents**

Challenge Problems 7.2

Set 1

1. Write $\frac{5}{6}\%$ as the ratio of two whole numbers.

Set 2

1. Forty percent of the balls in the gym are soccer balls. There are 80 balls altogether. How many are *not* soccer balls?

2. Three hundred percent of a number is 36. How can you use that information to find 600% and 150% of the number?

3. What number or numbers can be placed in the box so that the value of the expression is less than 30? greater than 30? equal to 30?

$\square\%$ of 30

Possible Answers

Set 1

1. $\frac{5}{6}\%$ is $\frac{5}{6}$ per every 100.

$$\frac{\frac{5}{6}}{100} = \frac{\frac{5}{6} \times 6}{100 \times 6} = \frac{5}{600} = \frac{1}{120}$$

Set 2

1. First, find the number of balls that *are* soccer balls. It's 40% of 80, or 32. Then, subtract to find the number of balls that are *not* soccer balls. Forty-eight of the balls are not soccer balls.

2. Six hundred percent is twice as much as 300%. Six hundred percent of the number will be 36 × 2, or 72. One hundred fifty percent is half 300%. One hundred fifty percent of the number will be 36 ÷ 2, or 18.

3. Numbers less than 100 make the expression less than 30. Numbers greater than 100 make the expression greater than 30. Putting 100 in the box makes the expression equal to 30.