# 4 Percents

- 4.1 The Percent Equation
- 4.2 Percents of Increase and Decrease
- 4.3 Discounts and Markups
- 4.4 Simple Interest



"Here's my sales strategy. I buy each dog bone for \$0.05."



"Then I mark each one up to \$1. Then, I have a 75% off sale. Cool, huh?"



"Dear Vet: I have this strange feeling that I am wagging my tail 15% fewer times than I used to wag it."



"Oh look. He already answered me."



"Dear Newton, I only practice general vet work. I need to refer you to a dog tail specialist."

# **What You Learned Before**

## Writing Percents Using Models

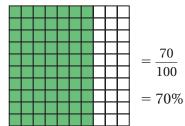
The fact that these two percents do not total 100 is a sad commentary on humans."

what else is there?

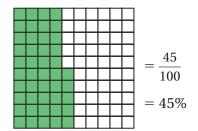
Favorite Pets

What percent of the model is shaded?

**Example 1** 

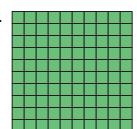


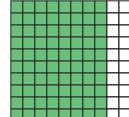
**Example 2** 



#### Try It Yourself

What percent of the model is shaded?





### Writing Decimals, Percents, and Fractions

Example 3 Write  $\frac{3}{5}$  as a decimal. Example 4 Write  $\frac{3}{5}$  as a percent.

$$\frac{3}{5} = \frac{3 \cdot 2}{5 \cdot 2} = \frac{6}{10} = 0.6$$

$$\frac{3}{5} = \frac{3 \cdot 20}{5 \cdot 20} = \frac{60}{100} = 60\%$$

Multiply to make the denominator 100.

#### Try It Yourself

Copy and complete the table.

|    | Percent | Decimal | Fraction        |
|----|---------|---------|-----------------|
| 4. | 35%     |         |                 |
| 5. |         | 0.6     |                 |
| 6. |         |         | $\frac{13}{25}$ |

7.

8.

9.

| Percent | Decimal | Fraction      |
|---------|---------|---------------|
| 10%     |         |               |
|         | 0.85    |               |
|         |         | $\frac{1}{5}$ |