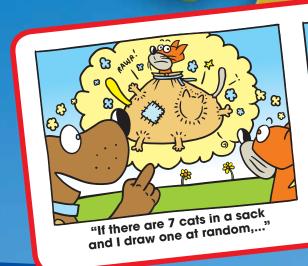
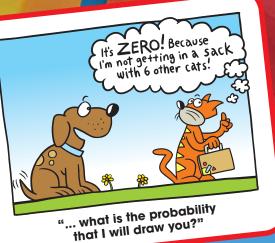
# 9 Probability

- 9.1 Introduction to Probability
- 9.2 Theoretical Probability
- 9.3 Experimental Probability
- 9.4 Independent and Dependent Events







"I'm just about finished making my two number cubes."



"Now, here's how the game works. You toss the two cubes."



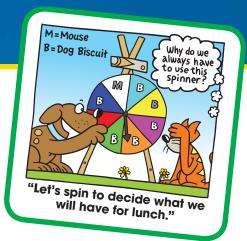
"If the sum is even I win.
If it's odd, you win."

## **What You Learned Before**

## Simplifying Fractions

Example 1 Simplify  $\frac{12}{36}$ .

 $\frac{12 \div 12}{36 \div 12} = \frac{1}{3}$ 



Example 2 Simplify 
$$\frac{33}{60}$$
.

 $\frac{33 \div 3}{60 \div 3} = \frac{11}{20}$ 

#### Example 3

a. Write the ratio of girls to boys in Classroom A.

$$\frac{\text{Girls in Classroom A}}{\text{Boys in Classroom A}} = \frac{11}{14}$$

	Boys	Girls
Classroom A	14	11
Classroom B	12	8

- So, the ratio of girls to boys in Classroom A is  $\frac{11}{14}$
- b. Write the ratio of boys in Classroom B to the total number of students in both classes.

$$\frac{\text{Boys in Classroom B}}{\text{Total number of students}} = \frac{12}{14 + 11 + 12 + 8} = \frac{12}{45} = \frac{4}{15}$$
 Write in simplest form.

So, the ratio of boys in Classroom B to the total students is  $\frac{4}{15}$ .

### Try It Yourself

Write the ratio in simplest form.





- 1. Baseballs to footballs
- 2. Footballs to total pieces of equipment
- **3.** Sneakers to ballet slippers
- 4. Sneakers to total number of shoes