

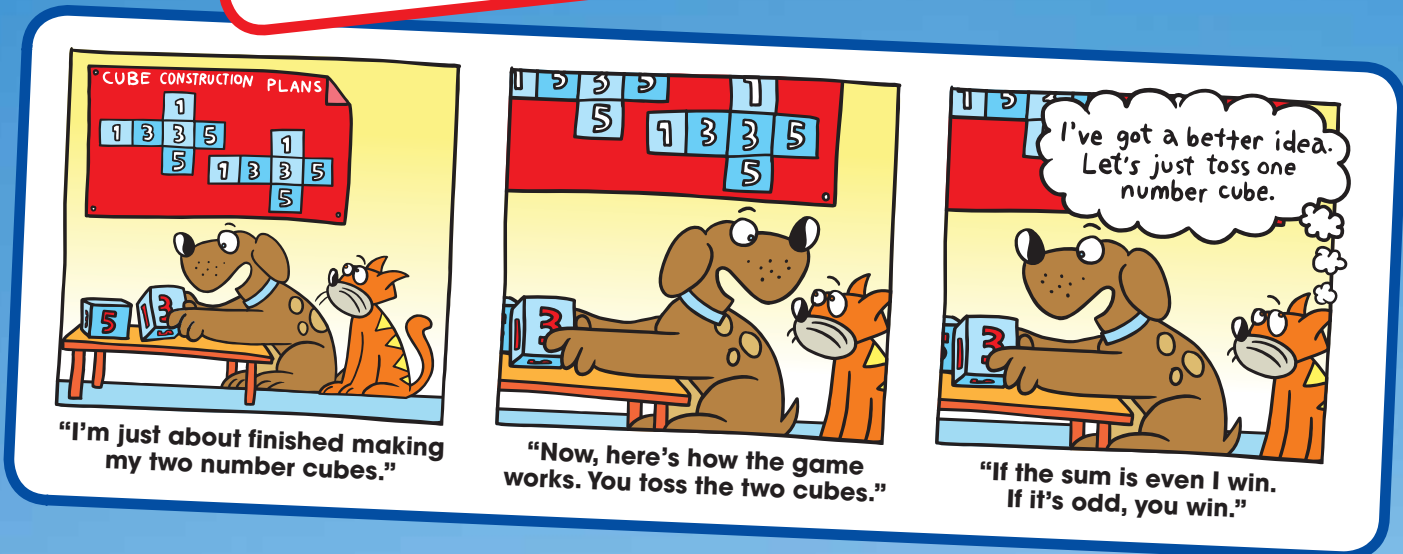
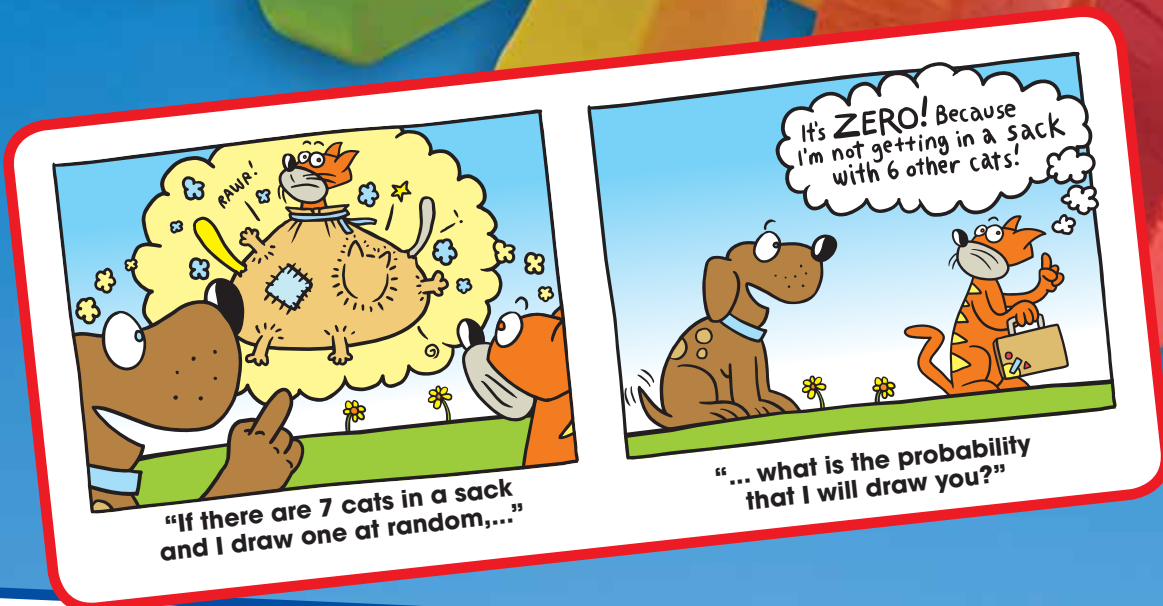
9 Probability

9.1 Introduction to Probability

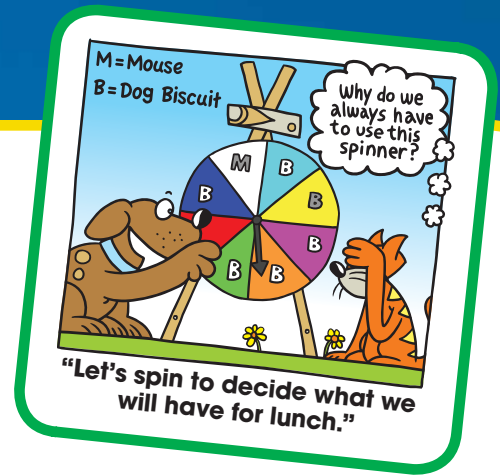
9.2 Theoretical Probability

9.3 Experimental Probability

9.4 Independent and Dependent Events



What You Learned Before



Simplifying Fractions

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

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

Simplify fractions by using the Greatest Common Factor.

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

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

Writing Ratios

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.



- Baseballs to footballs
- Footballs to total pieces of equipment
- Sneakers to ballet slippers
- Sneakers to total number of shoes