

Looking Ahead to Chapter 7

7

Focus

In Chapter 7, you will learn how to identify and find unknown measures in similar polygons and solids, prove that two triangles are similar, and use indirect measurement to solve problems.

Chapter Warmup

Answer these questions to help you review skills that you will need in Chapter 7.

Write each fraction in simplest form.

1. $\frac{18}{12}$

2. $\frac{15}{65}$

3. $\frac{56}{68}$

Multiply. Write your answer in simplest form.

4. $\frac{1}{4} \times \frac{5}{6}$

5. $\frac{9}{2} \times \frac{8}{27}$

6. $\frac{5}{2} \times \frac{7}{25}$

Solve each proportion.

7. $\frac{x}{8} = \frac{21}{24}$

8. $\frac{8}{20} = \frac{6}{x}$

9. $\frac{4}{50} = \frac{x}{200}$

Read the problem scenario below.

You look up into the sky and see an airplane flying toward the airport. The airplane is 22,176 feet directly above you. You are 55 miles from the airport.

- How far, in miles, are you from the airplane?
- About how far, in miles, is the airplane from the airport?

Key Terms

ratio ■ p. 284

proportion ■ p. 287

means ■ p. 287

extremes ■ p. 287

similar ■ p. 290

congruent ■ p. 290

scale model ■ p. 295

scale ■ p. 295

paragraph proof ■ p. 304

indirect measurement ■ p. 305

similar solids ■ p. 312

scale factor ■ p. 312