Study Guide

What's the chapter about?

Chapter 8 is about **similar polygons**. Two polygons are similar if their corresponding angles are congruent and the lengths of corresponding sides are proportional. In Chapter 8, you'll learn

- four ways to prove triangles are similar given information about their sides and angles.
- how to use similar polygons to solve real-life problems.

KEY VOCABULARY

▶ **Review**
- angle bisector, p. 36
- slope, p. 165
- transformation, p. 396
- image, p. 396
- preimage, p. 396

▶ **New**
- ratio, p. 457
- proportion, p. 459
- means, p. 459
- extremes, p. 459
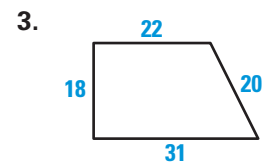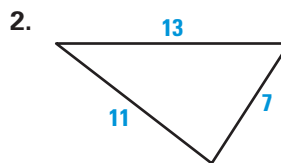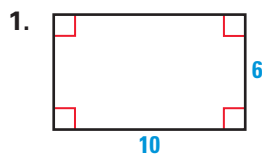- geometric mean, p. 466

- similar polygons, p. 473
- scale factor, p. 474
- dilation, p. 506
- reduction, p. 506
- enlargement, p. 506

Are you ready for the chapter?

SKILL REVIEW Do these exercises to review key skills that you'll apply in this chapter. See the given **reference page** if there is something you don't understand.

Find the perimeter of the figure. (Review pp. 51–54)

1.

6
10

2.

13
11
7

3.

22
18
20
31

Find the slope of the line that passes through the points. (Review Example 2, p. 165)

4. $A(0, 0)$ and $B(4, 2)$
5. $C(-1, 2)$ and $D(6, 5)$
6. $E(0, 3)$ and $F(-4, -8)$

Here's a study strategy!

Connect to the Real World

Make a list of the main topics of the chapter. Give a real-world example for each.