

PREVIEW

What's the chapter about?

Chapter 6 is about four-sided figures called **quadrilaterals** and their properties. In Chapter 6, you'll learn

- how to classify special quadrilaterals and how to use their properties.
- how to write proofs about special quadrilaterals.
- how to find areas of triangles and quadrilaterals.

KEY VOCABULARY

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|---|-------------------------|-------------------------------------|
| • polygon, p. 322 | • equiangular, p. 323 | • square, p. 347 |
| • sides and vertices of a polygon, p. 322 | • regular, p. 323 | • trapezoid, p. 356 |
| • convex, p. 323 | • diagonal, p. 324 | • isosceles trapezoid, p. 356 |
| • concave, p. 323 | • parallelogram, p. 330 | • midsegment of a trapezoid, p. 357 |
| • equilateral, p. 323 | • rhombus, p. 347 | • kite, p. 358 |
| | • rectangle, p. 347 | |

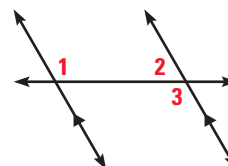
PREPARE

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.

Use the diagram at the right. Write the postulate or theorem that justifies the statement. (Review p. 143)

1. $\angle 1$ and $\angle 2$ are supplementary angles.
2. $\angle 1 \cong \angle 3$



Which postulate or theorem could you use to prove that $\triangle PQR \cong \triangle XYZ$? (Review pp. 212–215, 220–222)

3. $\angle Q \cong \angle Y$, $\angle R \cong \angle Z$, $\overline{PQ} \cong \overline{XY}$
4. $PQ = XY$, $QR = YZ$, $PR = XZ$
5. The endpoints of $\overline{AB}$ are $A(-3, 4)$ and $B(2, -8)$. Find the length and the slope of $\overline{AB}$. Then find the coordinates of the midpoint of $\overline{AB}$. (Review pp. 19, 35, and 165)

STUDENT HELP

Study Tip
“Student Help” boxes throughout the chapter give you study tips and tell you where to look for extra help in this book and on the Internet.

STUDY STRATEGY

Here's a study strategy!

Form a study group

Form a study group with two or three of your friends. Each person should review a few sections of the chapter and prepare a summary of the important concepts and skills. At a group meeting, present and discuss your summaries.