

# Triangles and Quadrilaterals


(pages 382–385)


You can classify polygons by their angles and sides.

<b>Types of Triangles</b>	<b>acute</b> all angles acute <b>obtuse</b> 1 obtuse angle <b>isosceles</b> exactly two congruent sides	<b>right</b> 1 right angle <b>scalene</b> no congruent sides <b>equilateral</b> 3 congruent sides
<b>Types of Quadrilaterals</b>	<b>parallelogram</b> opposite sides parallel and opposite sides congruent <b>rectangle</b> parallelogram with 4 right angles <b>rhombus</b> parallelogram with 4 congruent sides <b>square</b> parallelogram with 4 right angles and 4 congruent sides <b>trapezoid</b> exactly one pair of sides parallel	

## EXAMPLES

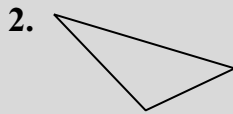
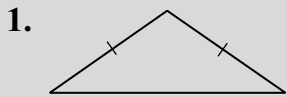
**Classify each polygon by its angles and by its sides.**

**A**  This is a triangle with one right angle, so it is a right triangle. No two sides are congruent, so the triangle is scalene.

**B**  This is a quadrilateral with exactly one pair of sides parallel, so it is a trapezoid.

### Try These Together

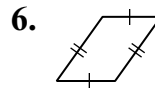
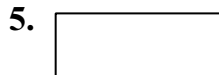
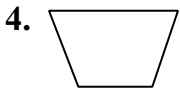
**Classify each triangle by its angles and by its sides.**



*HINT: Refer to the above table to help you classify the triangles.*

## PRACTICE

**Name every quadrilateral that describes each figure. Then underline the name that best describes the figure.**



7. **Advertising** Molly is working on a new advertisement for a shoe company. The shoes come in an odd-shaped box. It is a quadrilateral with exactly one pair of opposite sides that are parallel. What name can she use to best describe the box.



8. **Standardized Test Practice** A triangle has sides that measure 5 cm, 5 cm, and 8 cm. Classify the triangle by its sides.

- A** isosceles      **B** acute      **C** scalene      **D** equilateral

**Answers:** 1. obtuse, isosceles 2. obtuse, scalene 3. acute, equilateral 4. quadrilateral, trapezoid 5. quadrilateral, parallelogram, rectangle 6. quadrilateral, parallelogram, rhombus 7. trapezoid 8. A