

Name _____

Date _____

LESSON 8.6

Practice C

For use with pages 552–557

Draw the sides or diagonals of $ABCD$ as described. What special type of quadrilateral is $ABCD$?

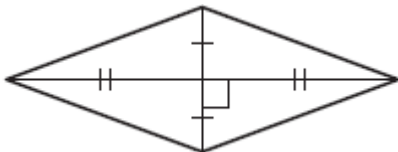
1. $\overline{AC} \cong \overline{BD}$, \overline{AC} and \overline{BD} bisect one another, but \overline{AC} is not perpendicular to \overline{BD} .
2. $\overline{AB} \cong \overline{BC}$ and $\overline{CD} \cong \overline{DA}$ but $\overline{BC} \parallel \overline{CD}$.
3. $\overline{AB} \parallel \overline{BC}$ and $\overline{BC} \cong \overline{DA}$.
4. $\overline{AC} \perp \overline{BD}$, \overline{AC} and \overline{BD} bisect one another, but $\overline{AC} \parallel \overline{BD}$.
5. $\overline{AC} \perp \overline{BD}$, \overline{AC} and \overline{BD} bisect one another, but $\overline{AC} \cong \overline{BD}$.

Determine whether the statement is *always*, *sometimes*, or *never* true.

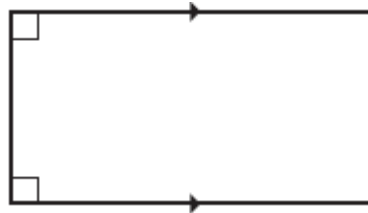
6. A square is a rectangle.
7. A square is not a rhombus.
8. All angles of a parallelogram are congruent.
9. Opposite angles of an isosceles trapezoid are congruent.
10. The diagonals of a parallelogram are perpendicular.

Tell whether enough information is given in the diagram to classify the quadrilateral by the indicated name. *Explain*.

11. Rhombus

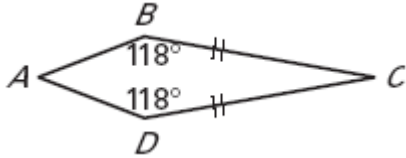


12. Rectangle

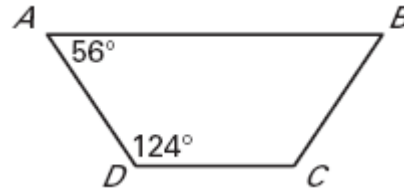


Which pairs of segments or angles must be congruent so that you can prove that $ABCD$ is the indicated quadrilateral? *Explain*. There may be more than one right answer.

13. Kite



14. Isosceles Trapezoid



15. Let $ABCD$ be a quadrilateral with $\overline{AB} \cong \overline{BC}$, $\overline{CD} \cong \overline{DA}$, and $\overline{AB} \parallel \overline{CD}$. What type of quadrilateral is $ABCD$? *Verify* your answer by completing the proof.

Statements	Reasons
1. Draw \overline{AC} .	1. _____
2. $\overline{AB} \cong \overline{BC}, \overline{CD} \cong \overline{DA}$	2. _____
3. _____	3. Base Angles Theorem
4. _____	4. Given
5. $\angle CAB \cong \angle ACD$	5. _____
6. _____	6. Transitive Prop. of Congruence
7. $\overline{AC} \cong \overline{AC}$	7. _____
8. _____	8. ASA Congruence Postulate
9. $\overline{AB} \cong \overline{CD}$	9. _____
10. _____	10. Transitive Prop. of Congruence
11. _____	11. _____