

7.4**Notetaking with Vocabulary**

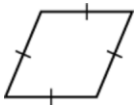
For use after Lesson 7.4

In your own words, write the meaning of each vocabulary term.

rhombus

rectangle

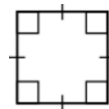
square

Core Concepts**Rhombuses, Rectangles, and Squares**

A **rhombus** is a parallelogram with four congruent sides.



A **rectangle** is a parallelogram with four right angles.

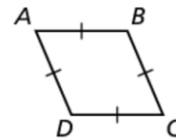


A **square** is a parallelogram with four congruent sides and four right angles.

Notes:**Corollary 7.2 Rhombus Corollary**

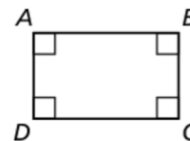
A quadrilateral is a rhombus if and only if it has four congruent sides.

$ABCD$ is a rhombus if and only if $\overline{AB} \cong \overline{BC} \cong \overline{CD} \cong \overline{AD}$.

**Corollary 7.3 Rectangle Corollary**

A quadrilateral is a rectangle if and only if it has four right angles.

$ABCD$ is a rectangle if and only if $\angle A$, $\angle B$, $\angle C$, and $\angle D$ are right angles.

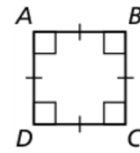


7.4 Notetaking with Vocabulary (continued)

Corollary 7.4 Square Corollary

A quadrilateral is a square if and only if it is a rhombus and a rectangle.

$ABCD$ is a square if and only if $\overline{AB} \cong \overline{BC} \cong \overline{CD} \cong \overline{AD}$ and $\angle A, \angle B, \angle C,$ and $\angle D$ are right angles.

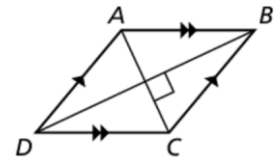


Notes:

Theorem 7.11 Rhombus Diagonals Theorem

A parallelogram is a rhombus if and only if its diagonals are perpendicular.

$\square ABCD$ is a rhombus if and only if $\overline{AC} \perp \overline{BD}$.

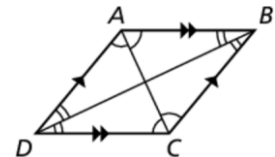


Notes:

Theorem 7.12 Rhombus Opposite Angles Theorem

A parallelogram is a rhombus if and only if each diagonal bisects a pair of opposite angles.

$\square ABCD$ is a rhombus if and only if \overline{AC} bisects $\angle BCD$ and $\angle BAD$, and \overline{BD} bisects $\angle ABC$ and $\angle ADC$.

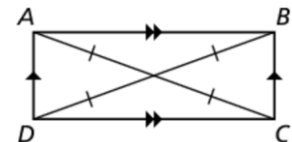


Notes:

Theorem 7.13 Rectangle Diagonals Theorem

A parallelogram is a rectangle if and only if its diagonals are congruent.

$\square ABCD$ is a rectangle if and only if $\overline{AC} \cong \overline{BD}$.



Notes: