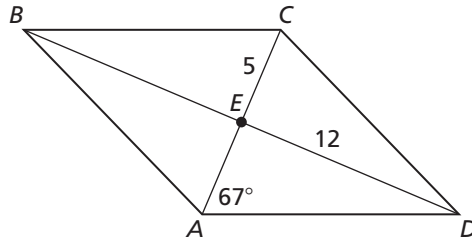


7.4

Practice A

In Exercises 1–5, the diagonals of rhombus $ABCD$ intersect at E . Given that $m\angle EAD = 67^\circ$, $CE = 5$, and $DE = 12$, find the indicated measure.

1. $m\angle AED$
2. $m\angle ADE$
3. $m\angle BAE$
4. AE
5. BE



In Exercises 6 and 7, find the lengths of the diagonals of rectangle $JKLM$.

- | | |
|---|---|
| <p>6. $JL = 3x + 4$
$KM = 4x - 1$</p> | <p>7. $JL = 2x - 6$
$KM = \frac{3}{2}x + 1$</p> |
|---|---|

In Exercises 8 and 9, decide whether quadrilateral $WXYZ$ is a rectangle, a rhombus, or a square. Give all names that apply. Explain your reasoning.

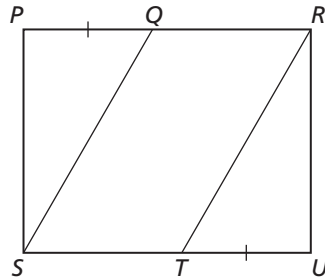
8. $W(3, 1), X(3, -2), Y(-5, -2), Z(-5, 1)$ 9. $W(4, 1), X(1, 4), Y(-2, 1), Z(1, -2)$

10. Use the figure to write a two-column proof.

Given $PSUR$ is a rectangle.

$$\overline{PQ} \cong \overline{TU}$$

Prove $\overline{QS} \cong \overline{RT}$



11. In the figure, all sides are congruent and all angles are right angles.

- a. Determine whether the quadrilateral is a rectangle. Explain your reasoning.
- b. Determine whether the quadrilateral is a rhombus. Explain your reasoning.
- c. Determine whether the quadrilateral is a square. Explain your reasoning.
- d. Find $m\angle AEB$.
- e. Find $m\angle EAD$.

