Name_____ Date _____

7.4 Practice A

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

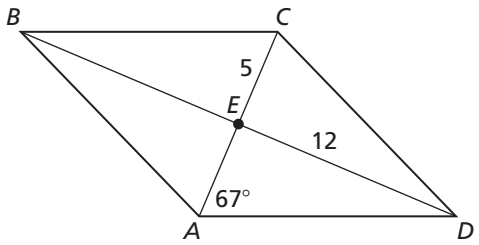
1. $m\angle AED$

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*.

6. $JL = 3x + 4$
$KM = 4x - 1$

7. $JL = 2x - 6$
$KM = \frac{3}{2}x + 1$

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.

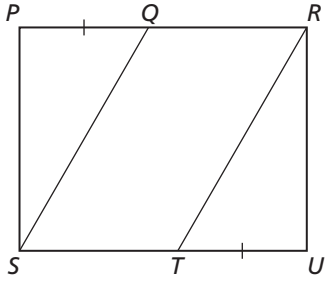
8. $W(3, 1), X(3, -2), Y(-5, -2), Z(-5, 1)$

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 $m\angle EAD$.