Practice

Form K

Properties of Rhombuses, Rectangles, and Squares

Decide whether the parallelogram is a rhombus, a rectangle, or a square. Explain.









Find the measures of the numbered angles in each rhombus.



To start, a diagonal of a rhombus forms an isosceles triangle with congruent base angles.

So, $m \angle | \mathbf{1} | = 38$.





8. 2 70° To start, the diagonals of a rhombus are perpendicular.

So, $m \angle 2 = 90$.

9.



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_ Class _____ Date

Form K

Practice (continued)

Properties of Rhombuses, Rectangles, and Squares

Algebra QRST is a rectangle. Find the value of x and the length of each diagonal.

11. $QS = x$ and $RT = 6x - 10$	To start, write an equation to show the diagonals are congruent. $\underline{?} = \underline{?}$
12. $QS = 4x - 7$ and $RT = 2x + 11$	13. $QS = 5x + 12$ and $RT = 6x - 2$
14. $QS = 6x - 3$ and $RT = 4x + 19$	15. $QS = x + 45$ and $RT = 4x - 45$

Determine the most precise name for each quadrilateral.



Determine whether each statement is true or false. If it is false, rewrite the sentence to make it true. If it is true, list any other quadrilaterals for which the sentence would be true.

- 20. Rhombuses have four congruent sides.
- **21.** Rectangles have four congruent angles.
- **22.** The diagonals of a rectangle bisect the opposite angles.
- **23.** The diagonals of a rhombus are always congruent.

Algebra Find the values of the variables. Then find the side lengths.



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