

Assignment

Write

Define each term in your own words. Use the words *diagonal*, *interior angle*, and *midsegment* in your definitions.

1. kite
2. isosceles trapezoid
3. cyclic quadrilateral

Remember

The diagonals of a parallelogram bisect each other and the diagonals of a rectangle are congruent. A square, rhombus, and kite have perpendicular diagonals.

The opposite angles of parallelograms are congruent and the opposite angles of cyclic quadrilaterals are supplementary.

Practice

1. Determine which quadrilateral each letter in the diagram represents using the list shown.

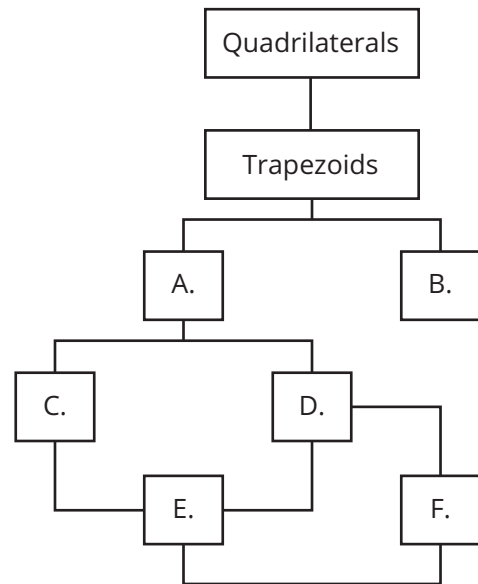
Kites	Squares
Rectangles	Parallelograms
Rhombi	Isosceles Trapezoids

2. State as many properties as you can about each quadrilateral.

a. Rectangle	b. Isosceles trapezoid
c. Kite	d. Parallelogram
e. Rhombus	f. Square

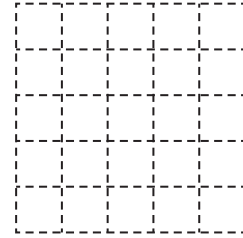
3. Describe how to construct each quadrilateral using the given diagonal.

- a. Square $WXYZ$ given diagonal WY
- b. Parallelogram $RSTU$ that is non-rectangular given diagonal RT



Stretch

Create a Zukei puzzle for an isosceles trapezoid in which the bases do not lie on the grid lines. Use a minimum of 10 dots. Make sure that your puzzle has only one correct answer.



Review

1. Write a conjecture about alternate interior angles. Draw an example to test your conjecture.
2. Draw examples of inscribed angles that intercept the same arc of a circle. What conjecture can you make about the measures of the inscribed angles?
3. Determine whether the triangles are congruent. If so, write a statement of triangle congruence.

