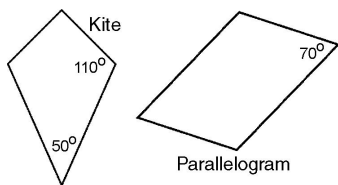# Problems: Quadrilateral Properties – Version C
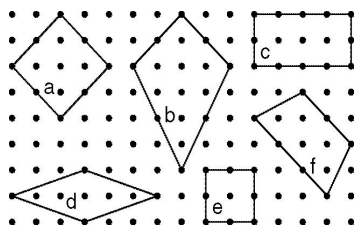
Name:_____

1. Write in the values of all of the angles of these two quadrilaterals.
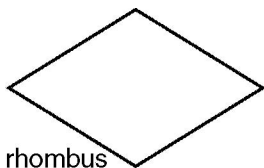

2. Circle each of the quadrilaterals which satisfy the statement.

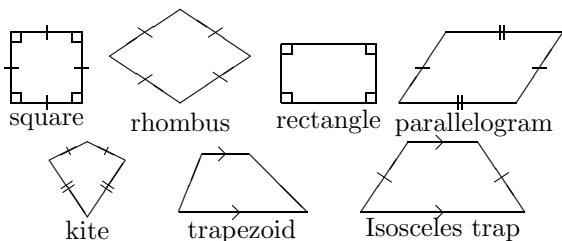   **Statement:** The diagonals bisect each other.

3. In the space below write out four different properties that are true for rhombuses. Then mark these properties on the rhombus given.

   Four Properties:

4. The seven types of quadrilaterals we have been working with are drawn here.

   For each of the following descriptions, write down <u>all</u> of the names of the quadrilaterals which satisfy the description. *Note: Multiple answers are possible.*

   (a) A quadrilateral in which the diagonals are perpendicular bisectors of each other.

   (b) A quadrilateral in which the diagonals are perpendicular to each other.

   (c) A quadrilateral in which only two sides are parallel.

   (d) A quadrilateral in which there are two sides that are parallel and the other two sides not parallel but they are equal.

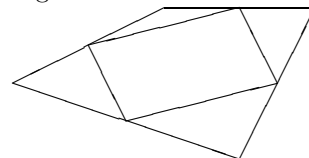5. **True or Not?** For the following statements
   • if **True** simply write *true*, or
   • if **False** write *false* <u>and</u> draw an example showing the statement is false.

   (a) **True or Not?** Opposite angles are equal in trapezoids.

   (b) **True or Not?** A square is a kite.

   (c) **True or Not?** The angles of a parallelogram add to 360°.

6. We have seen that inscribed quadrilaterals are always parallelograms.

   Sometimes the inscribed quadrilateral is more than a parallelogram, perhaps a rhombus or a rectangle.

   (a) i. Name the types of quadrilaterals that have inscribed rhombuses, and

       ii. draw a picture to illustrate each of these quadrilaterals.

   (b) i. Name the types of quadrilaterals that have inscribed rectangles, and

       ii. draw a picture to illustrate each of these quadrilaterals.