Section 6.4 *Properties of Diagonals*	Name: ___Notes___
	Date: _____ Period: _____

Essential Question
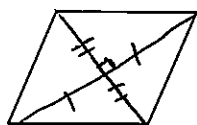
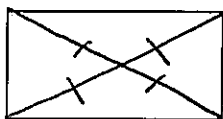What is special about the diagonals of a rhombus, rectangle, square, isosceles trapezoid and kite?
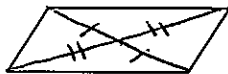
The diagonals of a parallelogram __Bisect__ each other.
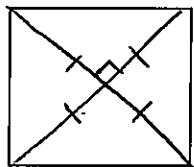
The diagonals of a rhombus __Bisect__ each other.
Diagonals are perpendicular __⊥__
http://www.mathopenref.com/rhombusdiagonals.html

The diagonals of a rectangle are __Congruent__.
The diagonals of a rectangle __bisect__ each other.
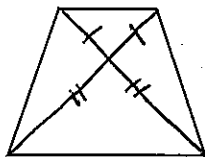
http://www.mathopenref.com/rectanglediagonals.html

The diagonals of a square are __Congruent__.
The diagonals of a square are __perpendicular__.
The diagonals of a square __bisect__ each other.

http://www.mathopenref.com/squarediagonals.html

The diagonals of an isosceles trapezoid are __Congruent__.

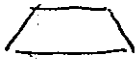The diagonals of a kite are __perpendicular__.
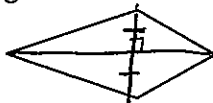
On the back draw and label all parts to the following:
(include diagonals and right angles)
① rectangle
② square

Under the letters "a" through "g" in the following table, answer "yes" or "no" to the following questions for each of the given quadrilaterals:

	a	b	c	d	e	f	g
Trapezoid	NO	NO	NO	NO	NO	NO	NO
Square	yes	yes	yes	yes	yes	yes	yes
Rhombus	yes	yes	NO	yes	yes	NO	
Rectangle							
Parallelogram							

a. Are opposite sides congruent and parallel?
b. Are opposite angles congruent?
c. Are the diagonals always congruent?
d. Do the diagonals bisect each other?
e. Are the diagonals always perpendicular to each other?
f. Are all angles congruent?
g. Are any two consecutive sides always congruent