Name: _____ Date: _____ Period: _____

Exploring Properties of Quadrilaterals

- **Congruent Sides** are sides that are equal in measure (same length.)
- A **Bisector** is a line, ray, or line segment that divides another line, line segment or angle into two equal parts.
- A **Perpendicular Bisector** is a line, ray, or line segment that divides another line segment into two parts and intersects that line segment at a right angle (90 degrees.)
- **Consecutive Sides** are sides that share a common vertex.
- **Opposite Sides** of a quadrilateral are sides that don't share a common vertex.
- A **Diagonal** is a segment that connects non-consecutive vertices.

1. Which of the following quadrilaterals have at least one pair of ***opposite sides*** that are congruent? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

2. Which of the following quadrilaterals have two pairs of ***opposite sides*** that are congruent? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

3. Which of the following quadrilaterals have at least one pair of ***opposite sides*** that are parallel? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

4. Which of the following quadrilaterals have two pairs of ***opposite sides*** that are parallel? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

5. Which of the following quadrilaterals have ***consecutive sides*** that are perpendicular to one another? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

6. Which of the following quadrilaterals have at least one ***diagonal*** that bisects the other diagonal? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

7. Which of the following quadrilaterals have ***diagonals*** that bisect each other (in other words, diagonals that share the same midpoint?) Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

8. Which of the following quadrilaterals have ***diagonals*** that are congruent? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

9. Which of the following quadrilaterals have ***diagonals*** that are perpendicular to one another? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

10. Which quadrilaterals have a pair of **opposite sides** that are both congruent and parallel? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

11. Which quadrilaterals have **diagonals** that are congruent and perpendicular to one another? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

12. Which quadrilaterals have four congruent sides? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

13. Which quadrilaterals have **diagonals** that are perpendicular and equal in length? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

14. Which quadrilaterals are parallelograms? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

15. Which quadrilaterals are rectangles? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus

16. Which quadrilaterals are rhombi? Select all that apply.

◯ Kite ◯ Parallelogram ◯ Square
◯ Trapezoid ◯ Rectangle
◯ Isosceles Trapezoid ◯ Rhombus