 Diagonal = Line that connects opposite vertices/angles

Parallelogram

**Definition:**

Two pairs of parallel sides

**Properties:**

Opposite sides are congruent

Opposite angles are congruent

Any pair of adjacent (not opposite) angles are supplementary (because they are same-side interior angles)

Rectangle

Definition: Four right angles

Properties: All the properties of a parallelogram apply.

Diagonals are congruent (not true for a regular parallelogram) also true for squares and that’s it

Kite

Definition: Two pairs of adjacent sides

Properties:

Diagonals are perpendicular (meet at right angles) – (not true w/ rect.)

One pair of opposite angles are congruent

Rhombus

Definitions: Four congruent sides

Properties: Diagonals are perpendicular bisectors of each other – although they are not CONGRUENT

Diagonals are NOT necessarily congruent

Square

Definition: Four right angles AND all sides are congruent

Properties: All properties of a rhombus apply to a square:  
Diagonals are perpendicular bisectors – like a rhombus

Diagonals are congruent – like a rectangle

Diagonals ARE congruent

Trapezoid – One pair parallel sides

Isosceles Trapezoid – Two non-parallel sides are congruent

Two base angles are congruent