Quadrilateral Properties **Name** = ____________________

Enter True (T) or False (F) for each of the possible cases:

Then it is also a…	If quadrilateral ABCD is a … Trapezoid	Parallelogram	Rhombus	Rectangle	Square
Trapezoid					
Parallelogram					
Rhombus					
Rectangle					
Square					

Enter True (T) or False (F) for each of the possible statements and for the converse of the statement:

Then its …	If quadrilateral ABCD is a … Trapezoid		Parallelogram		Rhombus		Rectangle		Square	
	Original	Converse	Original	Converse	Original	Converse	Original	Converse	Stat.	Converse
Opposite sides are =										
Opposite sides are ||										
Opposite angles are =										
Diagonals are										
Diagonals are										
Diagonals bisect each other										
Diagonals bisect the angles of ABCD										

Prove at least one each of the above claims and converses that you marked true. Provide counterexamples for those that you marked false.

Quadrilateral Definitions

Trapezoid - A quadrilateral with at least one pair of opposite parallel sides.
Parallelogram - A quadrilateral with two pairs of opposite parallel sides.
Rhombus - A quadrilateral with all four sides congruent (equilateral).
Rectangle - A quadrilateral with all four angles congruent (equiangular).
Square - A quadrilateral with all four sides and all four angles congruent (equilateral and equiangular).

Note: These versions are chosen so as to be as general as possible. More restrictive definitions (e.g., a trapezoid has one and only one pair of opposite parallel sides) make for inefficient proofs that are not as applicable to as wide a variety of shapes as they might otherwise be.