Rhombi, Kites, and Trapezoids

RhombiKitesTrapezoids.tns

Name _____

Class _____

Problem 1 – Properties of Rhombi

You will begin this activity by looking at angle properties of rhombi. On page 1.3, you are given rhombus *READ* and the measure of angles *R*, *E*, *A*, and *D*.

1. Move point *E* to four different positions and collect the measures of *R*, *E*, *A*, and *D* and record your measurements in the table below.

Position	*R*	*E*	*A*	*D*
1				
2				
3				
4				

2. Consecutive angles of a rhombus are _____.

3. Opposite angles of a rhombus are _____.

Next, you will look at the properties of the angles created by the diagonals of a rhombi. On page 1.7, you are given rhombus *CARD* and the measure of angles *CSA*, *ASR*, *RSD*, and *DSC*.

4. Move point *C* to four different positions. Angles formed by the intersection of the two diagonals of a rhombus are _____.

On page 1.10, you are given rhombus *RHOM* and the measure of all angles created by the diagonals of the rhombus.

5. Move point *R* to four different positions. The diagonals of a rhombus _____ the angles of the rhombus.

Problem 2 – Properties of Kites

You will begin this problem by looking at angle properties of kites. You are given kite *KING* and the measure of angles *K*, *I*, *N*, and G.

6. Move point *I* to two different positions and point *K* to two different positions and collect the measures of *K*, *I*, *N*, and *G* and record your measurements in the table below.

Position	*K*	*I*	*N*	*G*
1				
2				
3				
4				

7. What do you notice about the opposite angles of a kite?

Next, you will look at the properties of the angles created by the diagonals of a kite. On page 2.5, you are given kite *BLUE* and the measure of angles *BSL*, *LSU*, *USE*, and *ESB*.

8. Move point *L* to four different positions. Angles formed by the intersection of the two diagonals of a kite are _____.

On page 2.8, you are given rhombi *KITE* and the measure of all angles created by the diagonals of the rhombus.

9. Move point *K* to four different positions. What do you notice about the angles created by the diagonals of a kite?

Problem 3 – Properties of Trapezoids

In this problem, you will look at angle properties of trapezoids. You are given trapezoid *TRAP* and the measure of angles *T*, *R*, *A*, and *P*.

10. Move point *R* to four different positions and collect the measures of *T*, *R*, *A*, and *P* onto the table below.

Position	*T*	*R*	*A*	*P*
1				
2				
3				
4				

11. What do you notice about the angles of a trapezoid?