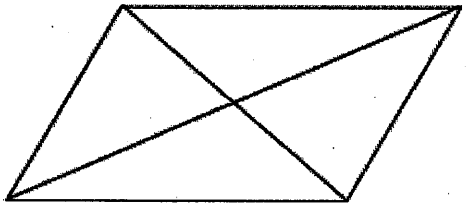
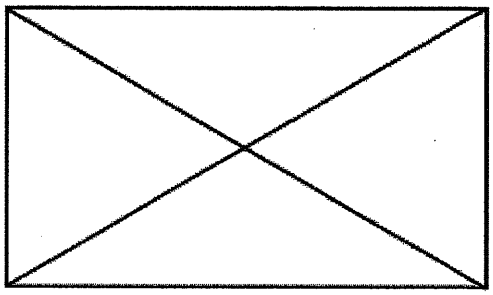
Geometry Classifying Quadrilaterals Summary Review

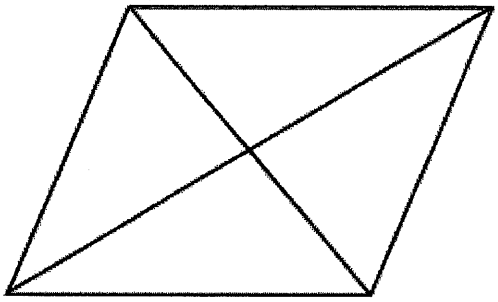
Properties of a parallelogram:
1. Opposite sides are parallel.
2. Opposite sides are congruent.
3. Opposite angles are congruent.
4. Consecutive angles are supplementary.
5. Diagonals bisect each other.



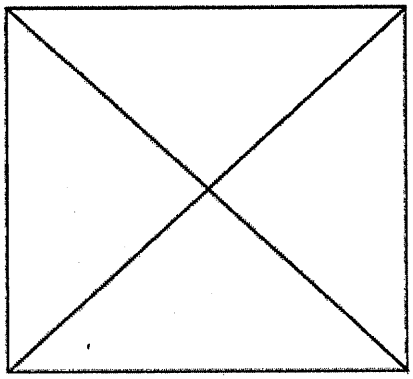
Properties of a rectangle:
1. Opposite sides are parallel.
2. Opposite sides congruent.
3. Opposite angles congruent.
4. Consecutive angles supplementary.
5. Diagonals bisect each other.
6. Four right angles.
7. Diagonals are congruent.



Properties of a rhombus:
1. Opposite sides parallel.
2. Opposite sides congruent.
3. Opposite angles congruent.
4. Consecutive angles supplementary.
5. Diagonals bisect each other.
6. Four congruent sides.
7. Diagonals are perpendicular.
8. Diagonals bisect opposite angles.



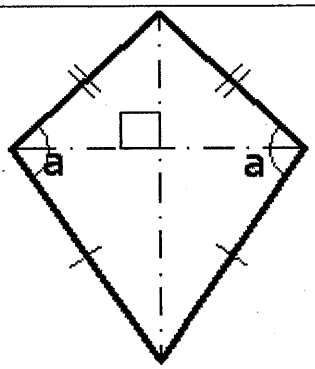
Properties of a square:
1. Opposite sides parallel.
2. Opposite sides congruent.
3. Opposite angles congruent.
4. Consecutive angles supplementary.
5. Diagonals bisect each other.
6. Four right angles.
7. Diagonals congruent.
8. Four congruent sides.
9. Diagonals are perpendicular.
10. Diagonals bisect opposite angles.



Kite:

Properties of a Kite:

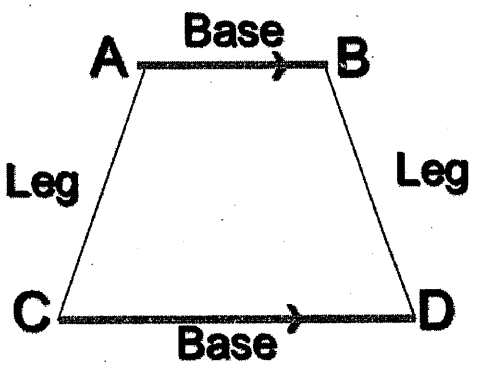
- The diagonals of a kite are **perpendicular**
- angles (***a***)are congruent
- Vertex diagonal bisects the vertex angles
- Vertex diagonal bisects the non-vertex diagonal

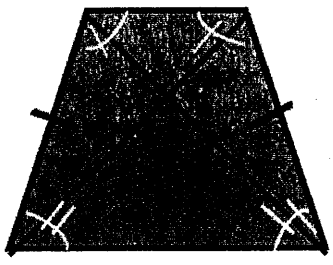


Trapezoids – quadrilateral with exactly one pair of parallel sides

Properties:
*Leg Angles are Supplementary

$m\angle A + m\angle C = 180$
$m\angle B + m\angle D = 180$



Isosceles Trapezoids

Base Angles Are congruent
Diagonals are congruent