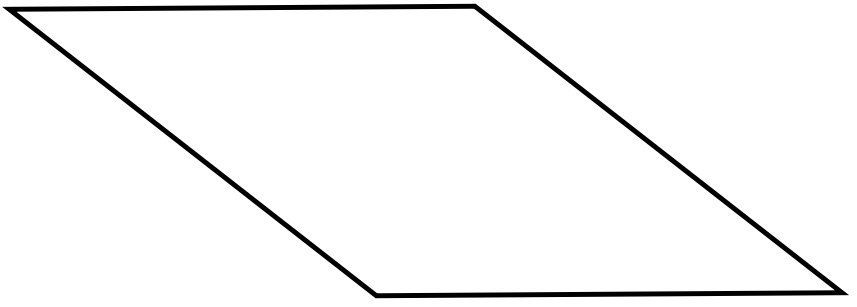
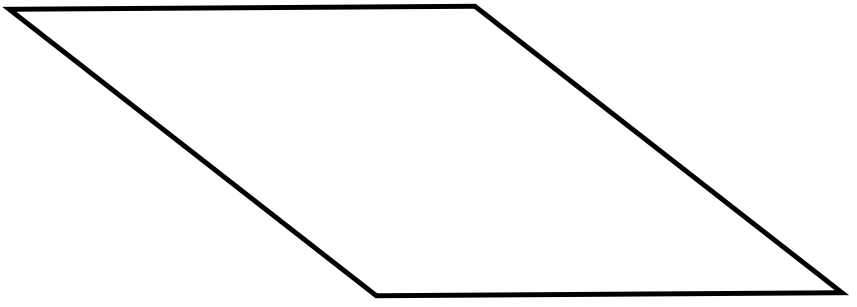
rhombus

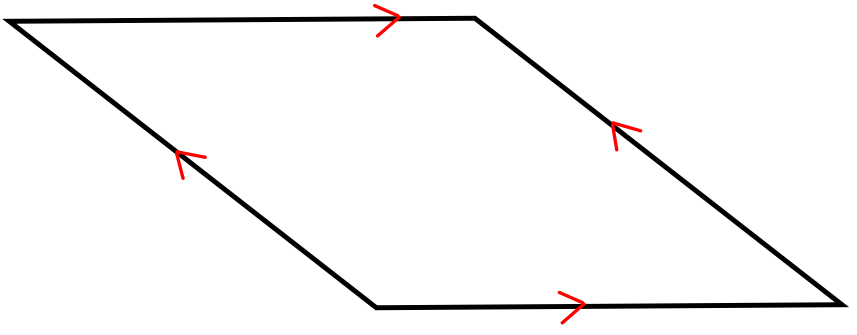


rhombus



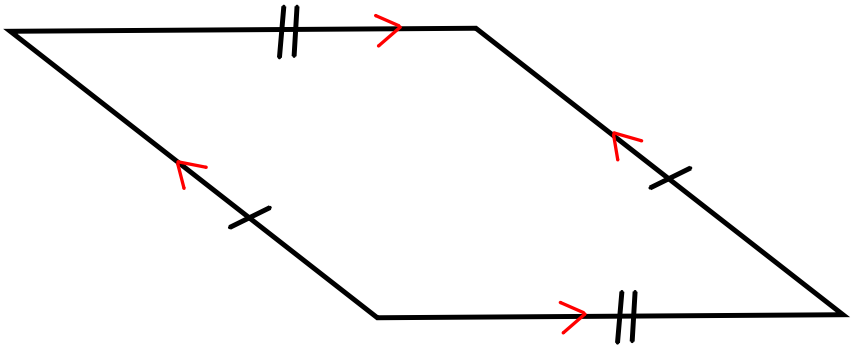
Since a rhombus is a special type of parallelogram, all properties of parallelograms apply to rhombi.

rhombus



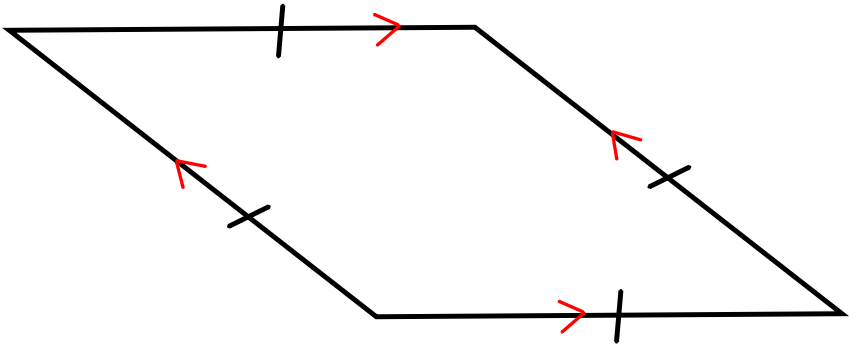
Opposite sides are parallel.

rhombus



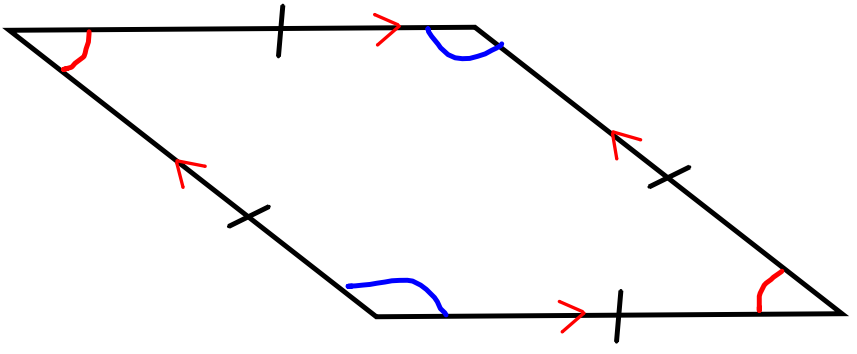
Opposites sides are congruent.

rhombus



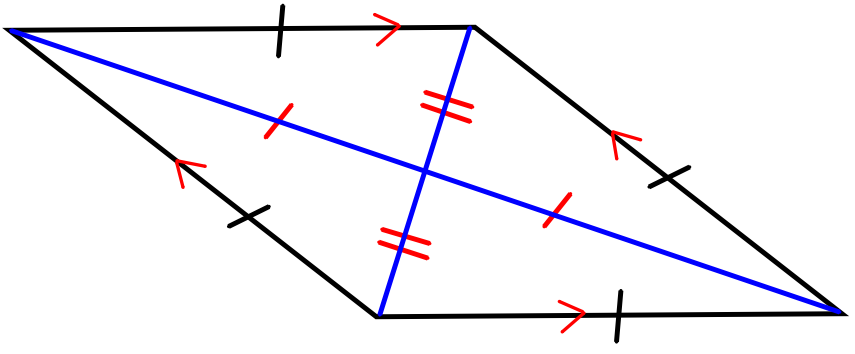
All sides are congruent.

rhombus



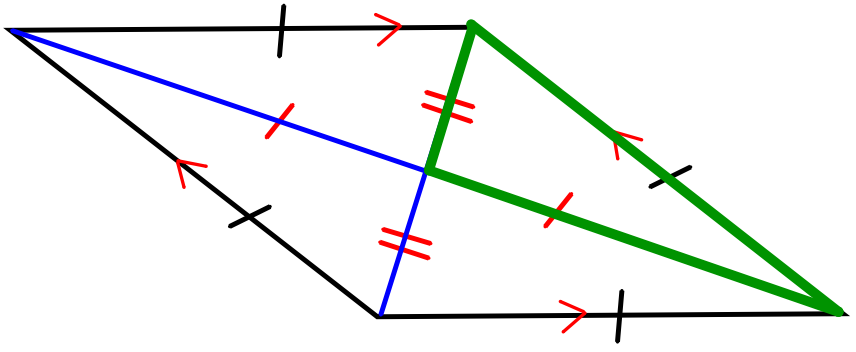
Opposite angles are congruent.
Any pair of consecutive angles are supplementary.

rhombus

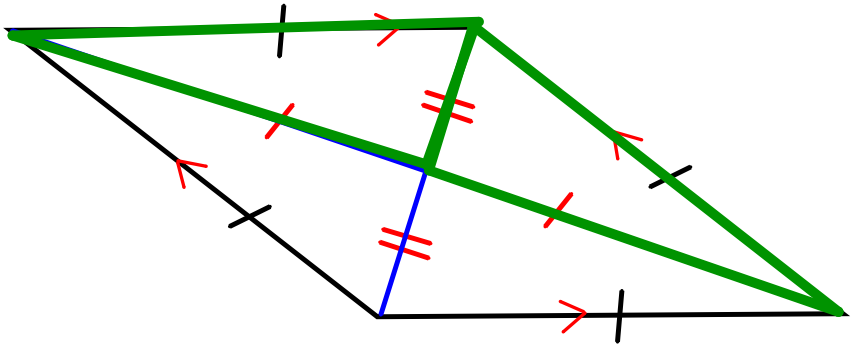


Diagonals bisect each other.

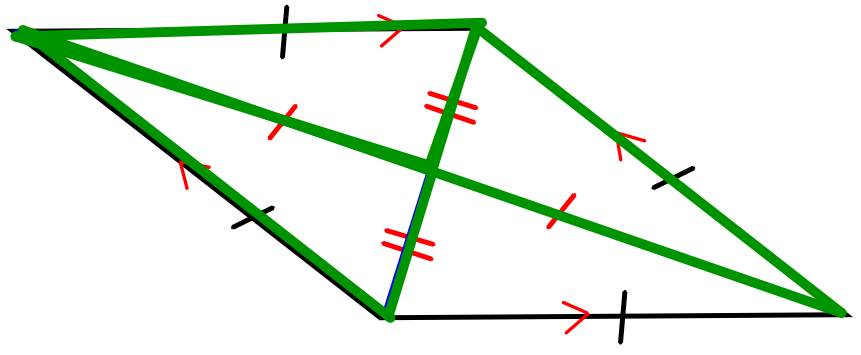
rhombus



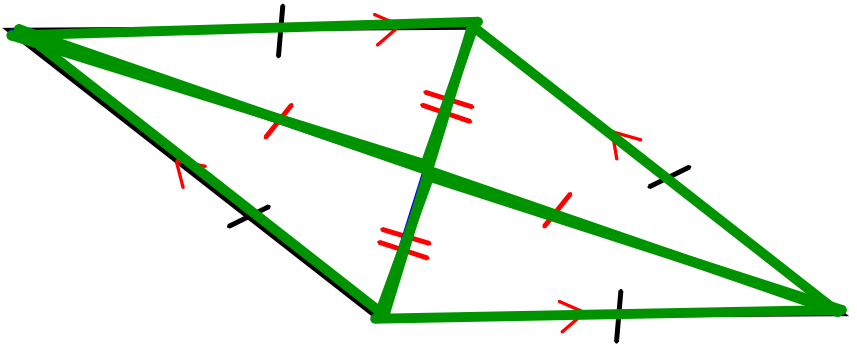
rhombus



rhombus

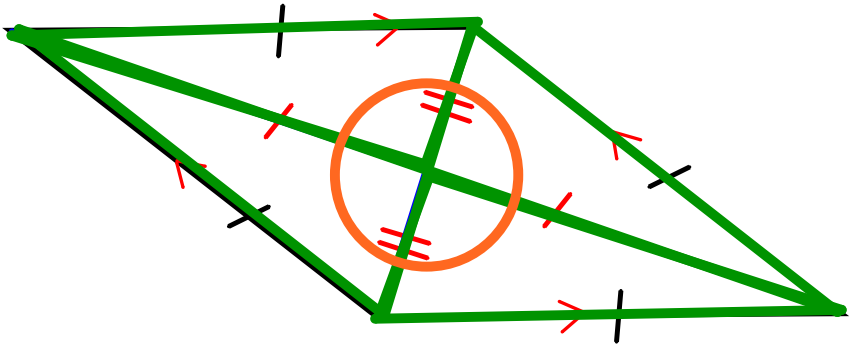


rhombus



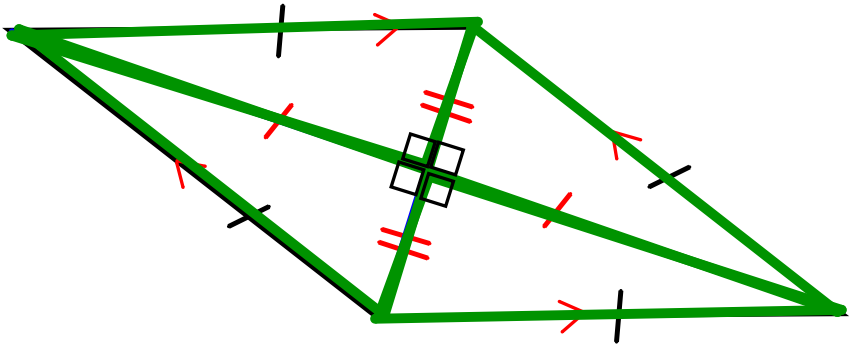
The four green triangles are congruent by SSS.

rhombus



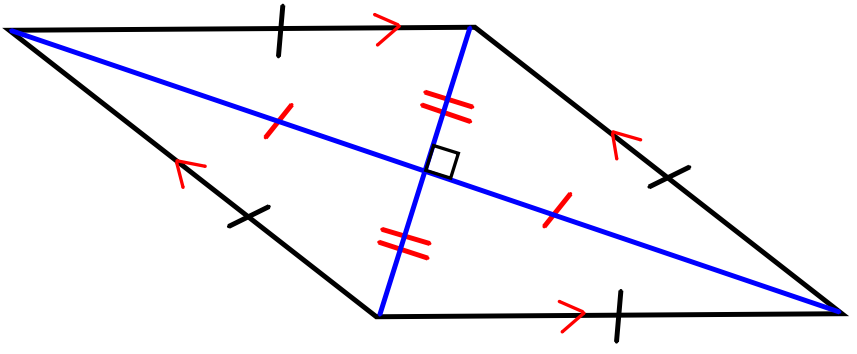
The four angles created by the intersection of the diagonals are congruent by CPCTC.

rhombus



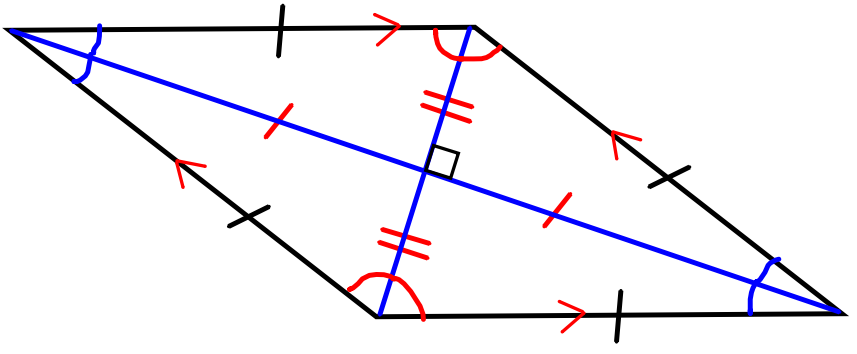
The four angles are right angles because any pair form a linear pair of congruent angles.

rhombus



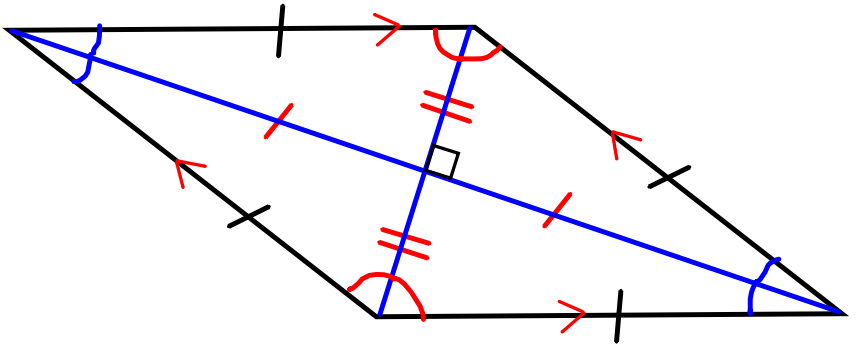
The diagonals of a rhombus are perpendicular bisectors of each other.

rhombus



The angles marked in red are congruent by CPCTC, as are the angles marked in blue.

rhombus



The diagonals, then, bisect the angles by definition of angle bisector.

Properties of rhombi (rhombuses)

1. All properties of parallelograms apply to rhombi.
2. All sides are congruent.
3. Diagonals are perpendicular bisectors of each other.
4. Diagonals bisect the angles.
5. Diagonals divide a rhombus into four congruent, right triangles.