Necessary conditions:

1. If all four sides are equal, then the opposite angles are equal
2. If all four sides are equal, then one diagonal cuts it into two congruent triangles
3. If all four sides are equal, then two diagonals bisect each other
4. If a quadrilateral with all four sides equal, then the opposite sides are parallel
5. If a quadrilateral with all four sides equal, then the diagonals are perpendicular
6. The diagonals of a rhombus bisect the angles of a rhombus.
7. If a quadrilateral has four congruent sides, then both the diagonals cut the quadrilateral into four congruent triangles
8. All rhombi are parallelograms, but not all parallelograms are rhombi.
9. All squares are rhombi, but not all rhombi are squares.
10. If there's a parallelogram with fours sides being equal, then the intersection of the diagonals is their midpoint.
11. If rhombus then all four side are equal to one another.
12. If rhombus then the mid-point of any of the side is equal to any other mid-point
13. If a quadrilateral is a rhombus, then the sum of the adjacent interior angles is equal to two right angles.
14. If it is a rhombus, then opposite sides are parallel
15. If all sides are the same length, then the intersection of the diagonals forms a midpoint.

Sufficient Conditions

16. If all the sides are equal in a quadrilateral and the diagonals bisect the angles then it is a rhombus.
17. If it is a quadrilateral with all sides equal, then it is a rhombus.
18. If the two diagonals are perpendicular in a quadrilateral, it is a rhombus.