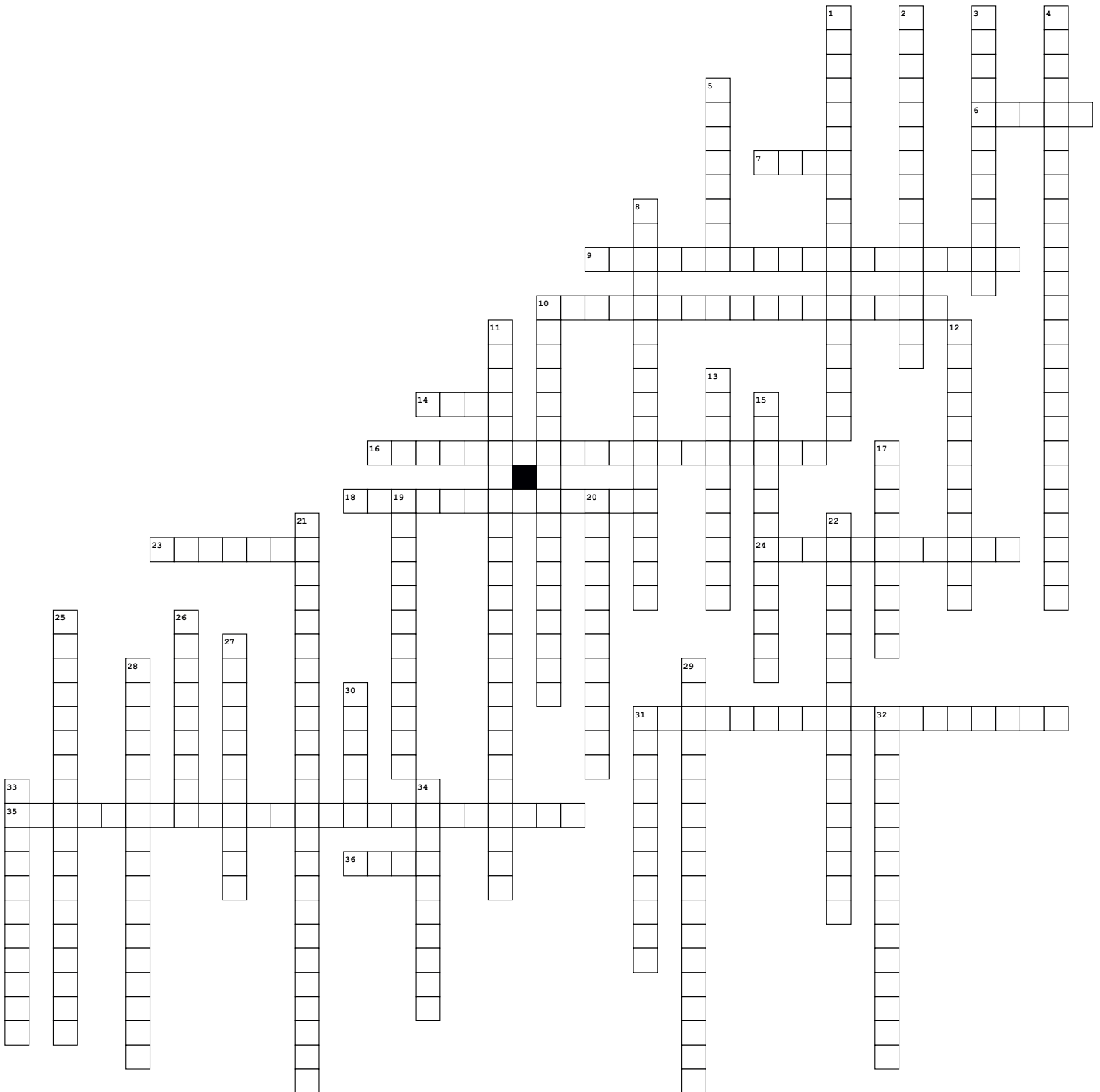


Quadrilaterals and their Properties



Across

6. the parallel sides of a trapezoid
7. is a quadrilateral with exactly two pairs of consecutive congruent sides, unlike a

Down

1. if the diagonals of a quadrilateral bisect each other, then the quadrilateral is a parallelogram.
2. of the diagonals of a parallelogram are congruent, then the parallelogram is a rectangle.

parallelogram The opposite sides of a kite are not congruent or parallel.

9. if one pair of opposite sides of a quadrilateral is both congruent and parallel, then the quadrilateral is a parallelogram.
10. if a quadrilateral is a parallelogram, then its consecutive angles are supplementary.
14. the non parallel side of a trapezoid
16. when the legs of the trapezoid are congruent.
18. is a quadrilateral with both pairs of opposite sides parallel.
23. is a parallelogram with all four sides congruent, A rhombus has all the properties of a parallelogram.
24. if a quadrilateral is both a rectangle and a rhombus, then it is a square.
31. if a quadrilateral is a parallelogram, then its opposite sides are congruent.
35. if a trapezoid is isosceles, then each pair of base angles is congruent.
36. are formed by the base and one of the legs of a trapezoid.

3. if one pair of consecutive sides of a parallelogram are congruent, the parallelogram is a rhombus.
4. the mid segment of a trapezoid is parallel to each base and its measure is one half the sum of the lengths of the bases.
5. a segment that connects any two nonconsecutive vertices.
8. if a quadrilateral is a parallelogram, then each diagonal separates the parallelogram into two congruent triangles.
10. if both pairs of opposite sides of a quadrilateral are congruent, then the quadrilateral is a parallelogram.
11. a trapezoid is isosceles if and only if its diagonals are congruent.
12. if a parallelogram is a rhombus, then its diagonals are perpendicular.
13. if a quadrilateral is a kite, then its diagonals are perpendicular.
15. if one diagonal of a parallelogram bisects a pair of opposite angles, then the parallelogram is a rhombus.
17. is a quadrilateral with exactly one pair of parallel sides.
19. if a parallelogram is a rhombus, then each diagonal bisects a pair of opposite angles.
20. if the diagonals of a parallelogram are perpendicular, then the parallelogram is a rhombus.
21. if a trapezoid has one pair of congruent base angles, then it is an isosceles trapezoid.
22. if a parallelogram has one right angle then it has for right angles.
25. if a quadrilateral is a parallelogram, then its opposite angles are congruent.
26. is a parallelogram with four right angles by definitions, a rectangle has the following properties: all four are right angles, opposite sides are parallel and congruent, opposite angles are congruent, consecutive angles are supplementary, diagonals bisect each other.
27. the sum of the interior angle measures of an n-sided convex polygon is $(n-2)*180$.
28. if a quadrilateral is a parallelogram, then its diagonals bisect each other.
29. if both pairs of opposite angles of a quadrilateral are congruent, then the quadrilateral is a parallelogram.
30. is a parallelogram with four congruent sides and four right angles.

- 31.** the sum of the exterior angle measures of a convex polygon, one angle at each vertex is 360.
- 32.** if a parallelogram is a rectangle, then it's diagonals are congruent.
- 33.** is the segment that connects the midpoints of the legs of the trapezoid.
- 34.** if a quadrilateral is a kite, then exactly one pair of opposite angles is congruent.