The hierarchy of quadrilaterals :

Quadrilateral

A quadrilateral is a polygon with 4 sides, 4 angles, and 4 vertices (corners). The sum of the angles of a quadrilateral add up to 360°. There are classifications for quadrilateral just like there are for triangles. As you move down the hierarchy, the classification becomes more specific. The best way to classify a quadrilateral is by using the most specific classification. The diagram below shows the quadrilateral hierarchy.



Kite

A kite is a quadrilateral with two distinct pairs of congruent adjacent sides.

Trapezoid

A trapezoid is a quadrilateral with exactly one pair of parallel sides.

Parallelogram

A parallelogram is a quadrilateral with two pairs of parallel sides. A parallelogram also has opposite sides that are congruent.

Rectangle

A rectangle is a parallelogram with 4 right angles. Opposite sides of a rectangle are also congruent. So, it has two pairs of congruent sides.

Rhombus

A rhombus is a parallelogram with 4 congruent sides. A rhombus may or may not have right angles.

Square

Notice that when a rhombus has 4 right angles it is also called a square. A rectangle with 4 congruent sides is also a square. So, a square is a quadrilateral that has angles of 90° and all four sides are congruent.

Nets and three-dimensional models :

Nets

A net is a two-dimensional representation of a three-dimensional figure that shows all the faces of the figure.

Solids

Three-dimensional figures are also called solids. They have length, width, and height. A solid formed by polygons is called a polyhedron. The net solid shows what a solid looks like if it were unfolded and laid flat on a surface. The following table shows some common solids and their nets.

