

<p>A polygon is a plane figure that meets the following conditions?</p>	<ol style="list-style-type: none"> 1. It is formed by three or more segments, called sides, such that no two sides with a common endpoint are collinear. 2. Each side intersects exactly two other sides, one at each endpoint.
<p>Convex</p>	<p>A polygon is convex if no line that contains a side of the polygon contains a point in the interior of the polygon.</p>
<p>Concave</p>	<p>A polygon that is not convex is called nonconvex or concave.</p>
<p>A polygon is equilateral if...?</p>	<p>A polygon is equilateral if all of its sides are congruent.</p>
<p>A polygon is equiangular if...?</p>	<p>A polygon is equiangular if all of its interior angles are congruent.</p>
<p>A polygon is regular if...?</p>	<p>A polygon is regular if it is equilateral and equiangular.</p>

<p>A diagonal of a polygon is...?</p>	<p>A diagonal of a polygon is a segment that joins two nonconsecutive vertices.</p>
<p>Interior Angles of a Quadrilateral</p>	<p>The sum of the measures of the interior angles of a quadrilateral is 360°.</p>
<p>Parallelogram</p>	<p>A parallelogram is a quadrilateral with both pairs of opposite sides parallel.</p>
<p>Theorems About Parallelograms</p>	<p>If a quadrilateral is a parallelogram, then:</p> <ul style="list-style-type: none"> *its opposite sides are congruent. *its opposite angles are congruent. *its consecutive angles are supplementary. *its diagonals bisect each other.
<p>If both pairs of opposite sides of a quadrilateral are congruent, then...?</p>	<p>If both pairs of opposite sides of a quadrilateral are congruent, then the quadrilateral is a parallelogram.</p>
<p>If both pairs of opposite angles of a quadrilateral are congruent, then...?</p>	<p>If both pairs of opposite angles of a quadrilateral are congruent, then the quadrilateral is a parallelogram.</p>

<p>If an angle of a quadrilateral is supplementary to both of its consecutive angles, then...?</p>	<p>If an angle of a quadrilateral is supplementary to both of its consecutive angles, then the quadrilateral is a parallelogram.</p>
<p>If the diagonals of a quadrilateral bisect each other, then...?</p>	<p>If the diagonals of a quadrilateral bisect each other, then the quadrilateral is a parallelogram.</p>
<p>If one pair of opposite sides of a quadrilateral are congruent and parallel, then...?</p>	<p>If one pair of opposite sides of a quadrilateral are congruent and parallel, then the quadrilateral is a parallelogram.</p>
<p>Rhombus</p>	<p>A rhombus is a parallelogram with four congruent sides.</p>
<p>Rectangle</p>	<p>A rectangle is a parallelogram with four right angles.</p>
<p>Square</p>	<p>A square is a parallelogram with four congruent sides and four right angles.</p>

<p>A quadrilateral is a rhombus if and only if...?</p>	<p>A quadrilateral is a rhombus if and only if it has four congruent sides.</p>
<p>A quadrilateral is a rectangle if and only if...?</p>	<p>A quadrilateral is a rectangle if and only if it has four right angles.</p>
<p>A quadrilateral is a square if and only if...?</p>	<p>A quadrilateral is a square if and only if it is a rhombus and a rectangle</p>
<p>A parallelogram is a rhombus if and only if...</p>	<p>A parallelogram is a rhombus if and only if</p> <ul style="list-style-type: none"> *its diagonals are perpendicular. *diagonal bisects a pair of opposite angles.
<p>A parallelogram is a rectangle if and only if...?</p>	<p>A parallelogram is a rectangle if and only if its diagonals are congruent.</p>
<p>Trapezoid</p>	<p>A trapezoid is a quadrilateral with exactly one pair of parallel sides. The parallel sides are the bases.</p>

