Angles

Check this website for more definitions: http://www.mathwords.com/index_geometry.htm

Line: all the points in a never-ending straight path. (when naming a line, use 2 points, with a line and arrows on BOTH ends above the line.) Ex: $\overleftrightarrow{AB}$

Segment: two points and all the points in a straight path between them. (when naming a segment, use 2 endpoints with a segment above the line.) Ex: $\overline{AB}$

Ray: an endpoint and all the points in a straight path in one direction. (when naming a ray, start with the endpoint and pick a point in the direction that the ray is going, and put a ray, pointing to the right, above the points) Ex: $\overrightarrow{AB}$

Angle: two rays/ sides that share a common endpoint. (measure in units called degrees.)

Vertex: the common endpoint of an angle. The point where two sides meet. *(also, a corner point of a geometric figure)*

Acute Angle: an angle that measures less than $90°$

Right Angle: an angle that measures exactly $90°$

Obtuse Angle: an angle that measures more than $90°$, **AND** less than $180°$

Straight Angle: an angle that measures exactly $180°$

Adjacent Angles: two angles that share a common vertex, and one side, but have no common interior points. (two angles that are next to each other)

Vertical Angles: when 2 lines intersect, they form 4 angles (2 pairs of vertical angles). The angles across from each other are called, 'vertical angles.' Vertical angles share a common vertex, but no sides. However, they are congruent to one another.

Complementary Angles: the **sum** of two or more angle measures equals exactly $90°$

Complement of an Angle: the second angle that makes two angles **add** to $90°$

Supplementary Angles: the **sum** of two or more angle measures equals exactly $180°$

Supplement of an Angle: the second angle that makes two angles **add** to $180°$

Triangles

Congruent: having the same size, angle measure, or shape.

Congruent sides or segments have the same length

Congruent angles have the exact same angle measure

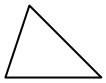
Polygon: a closed plane figure formed by three or more segments that do not cross.

Parallel Lines: two or more lines in a plane that do not and will not intersect.

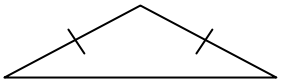
Perpendicular Lines: two lines or sides that meet/intersect to form a right angle.

Triangle: a three sided polygon. (the sum of the 3 angle measures equals 180º)

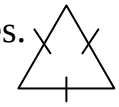
Scalene Triangle: has no congruent sides.



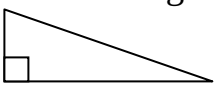
Isosceles Triangle: has 2 congruent sides.



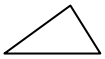
Equilateral Triangle: has 3 congruent sides. Also has 3 congruent angle measures.



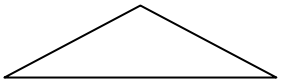
Right Triangle: a triangle with one right angle



Acute Triangle: a triangle formed with 3 acute angles



Obtuse Triangle: a triangle formed with 1 obtuse angle and 2 acute angles



*****ALL triangles have 3 angles that add to exactly*** $180°$ ********

*****ALL triangles can be classified by two names. One by its sides, and one by its angles.*****

Examples:	Acute Equilateral	Obtuse Isosceles	Right Isosceles
	Acute Isosceles	Obtuse Scalene	Right Scalene
	Acute Scalene		

Polygons and Quadrilaterals

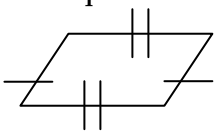
Polygon: a closed plane figure formed by three or more segments that do not cross.

Congruent Polygons: polygons with the same size and shape

Corresponding parts: parts of two polygons that are matching and congruent.

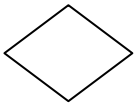
Quadrilateral: a four sided polygon with four angles.

Parallelogram: a quadrilateral with both pairs of opposite sides parallel and congruent.



Trapezoid: a quadrilateral with exactly one pair of parallel sides.

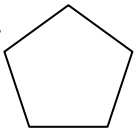
Rhombus: A parallelogram with 4 congruent sides.



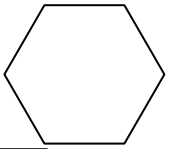
Square: a parallelogram with 4 right angles ***and*** 4 congruent sides.

Rectangle: a parallelogram with 4 right angles.

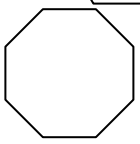
Pentagon: a five sided polygon.



Hexagon: a six sided polygon.



Octagon: an eight sided polygon.



Decagon: a ten sided polygon.

Regular Polygon: a polygon with all sides congruent **and** all angles congruent.

Examples: square
equilateral triangle
etc…

Circles

Circle: a set of points in a plane that are all the same distance from a given point (center)

Radius: a segment from the center of a circle to a point on the circle.

Diameter: a segment that passes through the center of a circle and has both endpoints on the circle

Chord: a segment with both endpoints on the circle, but does not have to pass through the center.

Central Angle: an angle with its vertex at the center of a circle.

Arc: part of a circle (use 2 letters to name an arc)

Semi-circle: half of a circle (use 3 letters to name, the middle letter shows the direction of the semi-circle)

Compass: a geometric tool used to draw circles and arcs.

Inscribed polygon: a polygon whose sides are chords of a circle

Miscellaneous Vocabulary

Heptagon: a 7 sided polygon

Nonagon: a 9 sided polygon

Tessellation: a repetitive pattern formed by polygons that fit together without overlap or holes.

Similar Figures: figures that have the same shape **but not** the same size

Corresponding Sides: sides of similar figures that "match"

Corresponding Angles: angles of similar figures that "match"

"Match": sides or angles that would be in the same position if the shapes were congruent.

Midpoint: the middle point on a line that splits the line segment into two equal parts.

Bisector: a line/ segment that splits an angle into two smaller, yet equal angles.