

Concurrent - Three or more lines that intersect at a single point. Two lines always will (except when parallel), but it requires a **point of concurrency** for more lines to meet.

Median - A segment going from the vertex of a triangle to the midpoint of the opposite side.

Median Concurrency Theorem - Given any triangle, the three medians will always be concurrent.

Centroid - The point of concurrency for the three medians of the triangle, usually denoted with a G

Sideline - A line determined by two vertices of a triangle. Basically a 'side' of the triangle.

Altitude - A segment stretching from the vertex of a triangle to the opposite sideline of the triangle. This could be not actually on the side in case of obtuse triangles. The point of intersection is called the **foot**.

Altitude Concurrency Theorem - Given any triangle, the altitudes will always be concurrent.

Orthocenter - The point of concurrency of the altitudes. Usually denoted with an H.

Circumcenter - The point of concurrence for the three perpendicular bisectors of a triangle, usually denoted with an O.

Euler Line Theorem - The orthocenter, circumcenter, and centroid of a triangle will always be collinear. In addition, the centroid is between the other two and is the midpoint. This line of three points is known as the **Euler Line**.