## Concurrency of the Angle Bisectors

An *angle bisector* is a line segment with one endpoint on any vertex of a triangle that extends to the opposite side of the triangle and bisects the angle. There are three angle bisectors of a triangle.

The three angle bisectors of a triangle are concurrent in a point equidistant from the sides of a triangle. The point of concurrency of the angle bisectors of a triangle is known as the *incenter* of a triangle.

The *incenter* will always be located **inside** the triangle.

## Properties of the Incenter

The incenter is the center of a circle that is *inscribed* inside a triangle.