Medians of a triangle

A median of a triangle is a line segment joining a vertex to the midpoint of the opposite side, thus bisecting that side.
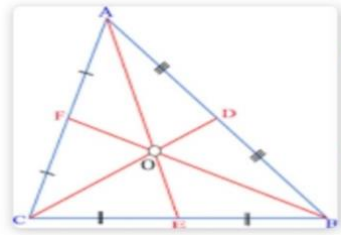
Every triangle has exactly three medians, one from each vertex, and they all intersect each other at the triangle

Centroid: The intersection point of all medians in a triangle is called centroid of the triangle.

❖ Centroid divides the median in the ratio of 2 : 1

Altitude of a triangle: An altitude of a triangle is a line segment through a vertex and perpendicular to a line containing the base.
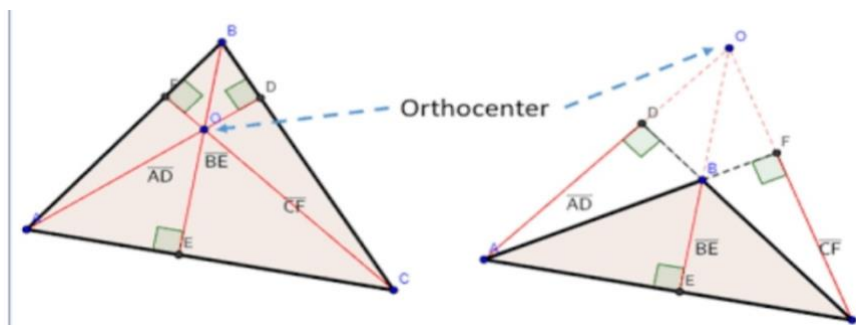
Orthocentre: intersection point of all altitudes in a triangle is called orthocentre.

Angle bisectors of a triangle:The angle bisector of a triangle is a line segment that bisects one of the vertex angles of a triangle.
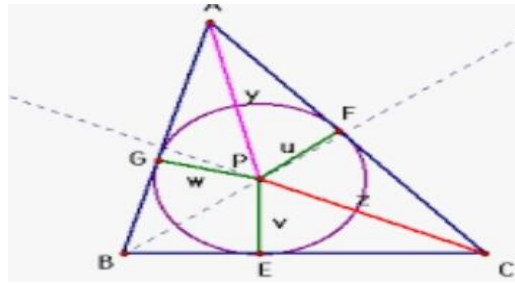
Incentre : The intersection point of all angle bisectors of a triangle is called in centre of the triangle

Incircle: the incircle or inscribed circle of a triangle is the largest circle contained in the triangle; it touches the three sides.

The center of the incircle is a triangle center called the triangle's incenter.

Perpendicular bisectors of a triangle: The perpendicular bisector of a side of a triangle is a line perpendicular to the side and passing through its midpoint.
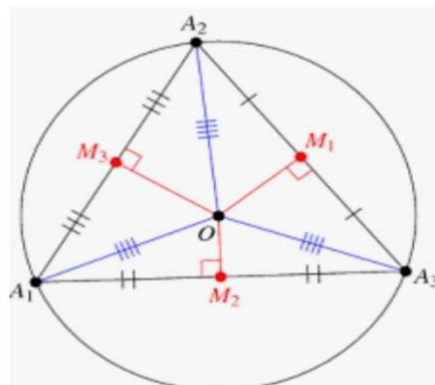
Circumcenter: The three perpendicular bisectors of the sides of a triangle meet in a single point, called the circumcente.

Circumcircle: The circumscribed circle or circumcircle of a triangle is a circle that passes through all the vertices of the triangle.

The center of this circle is called the circumcenter and its radius is called the circumradius.