TABLE OF THE FOUR POINTS OF CONCURRENCY

	LINES	POINTS OF CONCURRENCY (P.C.)	P.C. is inside which triangle?	P.C. is outside which triangle?	Lines bisect which part of the triangle?	P. C. is Center of what?		**Special properties of P. C.**
1	**Medians** (Passes @vertex)	**Centroid**	All Triangles	None	Sides of triangle	Mass of triangle		1)Divides median into 2:1 Ratio 2)Average of the Vertices 3) Center of Mass
2	**Angle bisectors** (Passes @vertex)	**Incenter**	All Triangles	None	Angles of triangle	Inscribed Circle		1)Equidistant to the sides of the triangle. 2) Center of inscribed circle
3	**Perpendicular bisectors** (Sometimes pass @ Vertex)	**Circumcenter**	Acute Triangles	Obtuse Triangles	Sides of triangle	Circumscribed Circle		1)Equidistant to the Vertices of the triangle 2) Center of Circumscribed circle 3)Midpoint of hypotenuse of a right triangle
4	**Altitudes (Heights)** (Passes @vertex)	**Orthocenter**	Acute Triangles	Obtuse Triangles	None			1) Vertex @ the right angle of a right triangle.

Euler Line ➔ Circumcenter to Centroid to Orthocenter : Ratio of 1:2