

1096-14-1422

Taylor C. Brysiewicz* (tbrysiewicz@yahoo.com), 1422 Saddleridge PL, Bartlett, IL 60103,
and **Leah Balay-Wilson**. *Families of Plane Cubic Curves with Nine-Pointic Contact at a Point*.

For any point on a plane cubic curve, it may or may not be possible to construct another cubic curve that will intersect it at that point with multiplicity nine. In this talk we provide a necessary and sufficient geometric condition for smooth points on a plane cubic curve to have this property. At such a point, we show that one can construct an infinite family of these cubics and in particular, this family is parametrized by the osculating conic at that point. (Received September 15, 2013)