1145-VO-2354 **Yun Myung Oh** and **Devin German Garcia*** (gdevin@andrews.edu), 4260 Administration Dr, Berrien Springs, MI 49104. *A Curve Satisfying $\frac{\tau}{\kappa}=\frac{1}{s}$ With Constant $\kappa > 0$.*

According to the Fundamental Theorem of Curves, any regular curve with a smooth positive curvature and smooth torsion can be completely determined up to its position. Helices have the property that the ratio of torsion to curvature is a constant. For rectifying curves, the ratio of torsion to curvature is a linear function. In this paper, we study a space curve whose ratio of torsion to curvature is given by $\frac{1}{s}$, where $s$ is an arc length. For this problem, we consider the curvature is constant. After reparametrization, we use a series solution to solve a third-order differential equation and obtain the general equation of the curve. (Received September 25, 2018)