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Skye Binegar* (binegars@reed.edu), **Randy Dominick**, **Meagan Kenney**, **Jeremy Rouse**
and **Alex M. Walsh**. *An Elliptic Curve Analogue to the Fermat Numbers*.

The classic Fermat numbers, which take the form $2^{2^n} + 1$, have several notable properties, including order universality, coprimality and definition by a recurrence relation. For an arbitrary elliptic curve and rational point of infinite order, we define a sequence analogous to the classic Fermat numbers, which we call an *elliptic Fermat sequence*. We demonstrate that these sequences have many of the same properties as the classic Fermat numbers, and we identify significant patterns within the sequence generated by a specific elliptic curve and point. (Received August 07, 2017)