1 Park Place
Elmira, NY 14901

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Undergraduate Mathematics Journal
RHIT
Terre Haute

To whom this may concern,

The pool of knowledgeable mathematics undergraduates has been increasing over the years. The positive externality, which we know as education, has caused students in all fields to become ever more competitive. As a result, REUs, in addition to privately sponsored, have become great commodities for graduate school applications. I would find it a great pleasure to publish my research piece, *Unique Properties of the Fibonacci and Lucas Sequences*, in the Rose-Hulman Undergraduate Mathematics Journal.

During the summer of 2006, I worked on a research project in mathematics at Elmira College. Funded by a private research grant, this research position was competitive amongst all mathematics and science students. Supervised by Dr. Charlie Jacobson, who will be writing my sponsor letter, the research position lasted nine weeks. We met together every weekday morning to discuss research progress; for the afternoons.

Unique Properties of the Fibonacci and Lucas Sequences, delves into a matrix representation of recursive sequences of the form $a_n = a_{n-1} + a_{n-2}$. By placing entries from recursive sequences into 2 x 2 matrices of the form, $\begin{bmatrix} a_n & a_{n-1} \\ a_{n-1} & a_{n-2} \end{bmatrix}$, we notice a dynamical pattern between the Fibonacci and Lucas number's matrix representation.

Stephen Parry will graduate with his BA in Mathematics from Elmira College in 2008, after which he will pursue his PhD is Mathematics. *Unique Properties of the Fibonacci and Lucas Sequences* was completed under a privately funded research grant at Elmira College advised by Dr. Charlie Jacobson. Stephen is interested in algebra, topology, sushi, ,LaTeX, and photography.

Thank you for your time.

Yours sincerely,

Stephen Parry