

**Newton's Unfinished Business:  
Uncovering the Hidden Powers of Eleven in Pascal's Triangle**

**Robert Arnold, Tom Attenweiler, Christopher Brockman, Bethany Lesko, Christine Martinek, Colleen McCormick, Jessica McQuiston, Jessica Parker, and Amy Rohmiller**  
**Chaminade-Julienne Catholic High School**  
**Dayton, OH 45402**  
**leloe@cjeagles.org**

**Abstract**

Sir Isaac Newton once observed that the first five rows of Pascal's Triangle, when concatenated, yield the corresponding powers of eleven. He claimed without proof that subsequent rows also generate powers of eleven. Was he correct? While not all rows can simply be concatenated, the powers of eleven can still be easily derived from each. We have uncovered an algorithm that supports Newton's claim and will prove its validity for all rows of the Triangle.