1056-Z1-483 **Sommer L Sprowls*** (sprowlssl@washjeff.edu), 50 S. Lincoln St., Box 1265, Washington, PA 15301, and **Chelsea Cerini** and **Roman Wong**. *The Mystery of the M&m Sequences.*

In a 2005 *CMJ* article, Shultz and Shiflett introduced the idea of M&m sequences. Start with any three numbers x_1, x_2, and x_3. For $n \geq 4$, x_n is defined to be the number such that the mean of $(x_1, x_2, \ldots, x_n)$ is equal to the median of $(x_1, x_2, \ldots, x_{n-1})$. In the article, they proved that any M&m sequence can be transformed into a sequence beginning with 0, x, $x + 1$ where $x \geq 1$. They showed that these sequences always stabilize with length 73 when $x \geq 21.3125$ and they conjectured that every M&m sequence stabilizes. In our research, we extend their result further and find new observations of our own. We also reveal the mystery behind the number 21.3125 and its significance with M&m sequences. (Received September 09, 2009)