

# *Arithmetic Progressions of Integers that are Relatively Prime to their Digital Sums*

Sarah Lohrey '25

A positive integer  $b \geq 2$  is called  $b$ -anti-Niven if it is relatively prime to the sum of the digits in its base- $b$  representation. We explore the maximum lengths of sequences of consecutive  $b$ -anti-Niven numbers and arithmetic progressions of  $b$ -anti-Niven numbers. This research was done in Summer 2023 as part of the Moravian University Math and Computer Science REU Program.

*Wednesday, November 8, 2023*

*at 7 p.m. in Park 245 or via Zoom*

<https://brynmawr-edu.zoom.us/j/95807982212?pwd=aXBBMnFZMUUyWDQ1S1d3TGozc0t5Zz09>

*Meeting ID: 958 0798 2212*

*Passcode: 792030*