

# TEMPLE

# MATH CLUB

**Investigating Lucas Sequences  
Under a Modulus – Tommy Pham**

## **WHEN**

**November 21<sup>th</sup> 2024  
5-6 PM**

## **WHERE**

**Wachman Hall 617**

**In 2018, Alex Dishong and Marc S. Renault obtained an algorithm that computes all moduli that produce a given period for the Fibonacci sequence,  $G_0 = 0$  and  $G_1 = 1$ . In this paper, we aim to generalize their result by replacing the Fibonacci sequence with generalized Fibonacci sequences,  $G_0 = a$  and  $G_1 = b$ . We conclude the paper by providing proofs of the main details of the algorithm and a conjecture.**

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