## CONNOR RIDDLESDEN STUDENT, MATHEMATICS



## GENERALISED FIBONACCI SEQUENCES UNDER MODULAR ARITHMETIC

In this research, we will look for patterns and count the number of distinct generalised Fibonacci sequences under Modular Arithmetic. We will start with the repetition of the normal Fibonacci sequence under Modular Arithmetic and how it is dependent on the prime factorisation. We will then extend the complexity of the problem into Generalised Fibonacci sequences with different starting values. Finally we will present some interesting results that are still open and yet to be proved.

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