

How long can a curve capture a sequence?

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In this talk we consider a number-theoretic question that interrelates two group structures. An arithmetic progression sequence on rational numbers carries a pattern that can be imitated in the universe of algebraic planar curves. We start with introducing algebraic curves, with due attention to elliptic curves, then we discuss some of the aspects of the arithmetic on these curves. We define what we mean by an arithmetic progression sequence within the globe of algebraic planar curves. We then display some of the old and recent developments in the theory. Specifically, we discuss the possibilities for the length of these progression sequences. Finally, we present some open questions that currently intrigue researchers.