

On rational distances between points on a quadratic curve in the Euclidean plane.

Steven D. LePire, George Mason University, Fairfax VA – 22030

Abstract

It is an open problem on how many points on the curve $y = x^2$ have pairwise rational distances. It was previously known that there exist five such points. – Here we show that (i) there actually are infinitely many sets of such five points, and (ii) there exists at least one such set containing six points.

Keywords: Euclidean distance, rational numbers.