# How many rationals are there in the Cantor set? 


#### Abstract

Mentor: Erez Nesharim

This project is about the problem of counting the number of rational numbers in the middle-thirds Cantor set, up to an upper bound on the denominator. We will turn our attention to an analogous problem in the field of formal Laurent series with coefficients from a finite field. We will apply a bare hands approach, look for conjectures by using a computer to establish the count for small enough upper bounds, and use available literature to guide our theoretical attempts.


