Michigan Math Club

Thursday at 4pm in the Commons
Free Pizza and Pop

Farey Sequences and the Riemann Hypothesis

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Abstract for 8 April 2010

The Riemann hypothesis (RH) is one of the most important unsolved conjectures in mathematics.   However, the statement of the problem and the ideas involved in it may seem a bit complicated.   Conveniently, in the 1920's Franel and Landau proved that RH is equivalent to a natural question about rational fractions.   The n-th Farey sequence is the ordered sequence of (completely reduced) fractions between 0 and 1 having denominator less than or equal to n.   In this talk we will study the properties of Farey sequences and explain how their distribution on the interval [0,1] is connected to RH.