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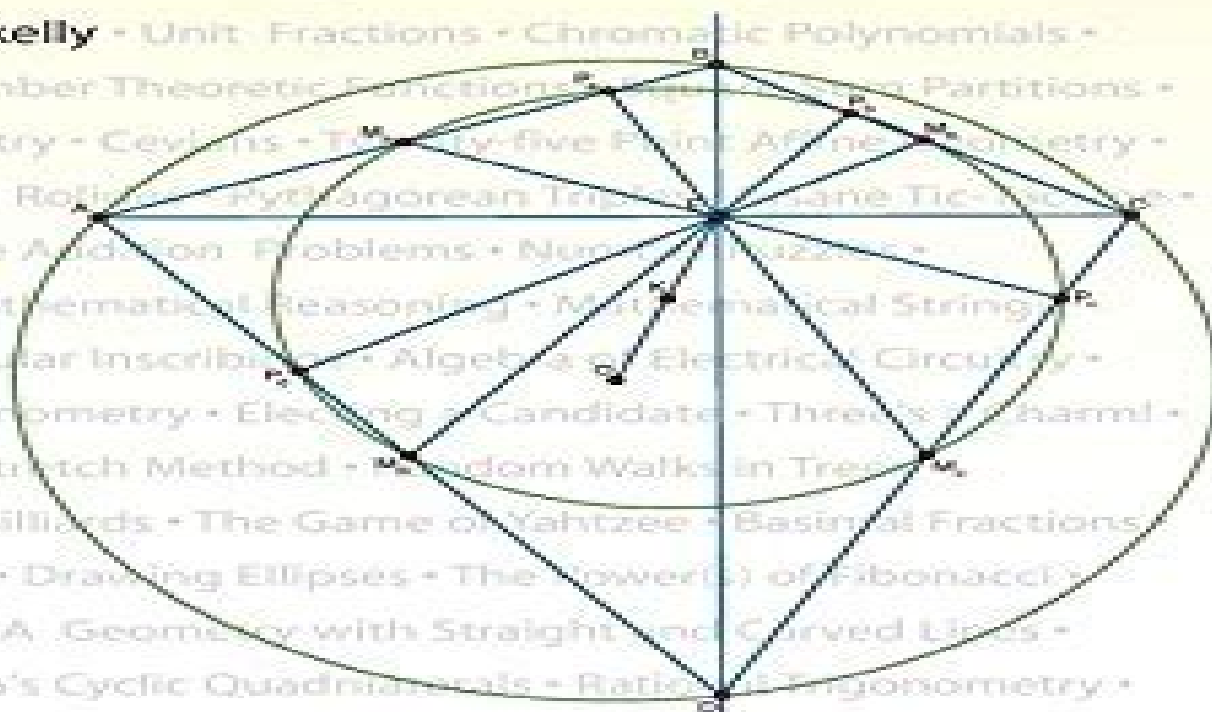
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# The Arml Power Contest Msri Mathematical Circles Library

**Thomas Kilkelly**



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Bicycle or Unicycle?: A Collection of Intriguing Mathematical Puzzles Daniel J. Velleman, Stan Wagon, 2020-08-17 Bicycle or Unicycle is a collection of 105 mathematical puzzles whose defining characteristic is the surprise encountered in their solutions Solvers will be surprised even occasionally shocked at those solutions The problems unfold into levels of depth and generality very unusual in the types of problems seen in contests In contrast to contest problems these are problems meant to be savored many solutions all beautifully explained lead to unanswered research questions At the same time the mathematics necessary to understand the problems and their solutions is all at the undergraduate level The puzzles will nonetheless appeal to professionals as well as to students and in fact to anyone who finds delight in an unexpected discovery These problems were selected from the Macalester College Problem of the Week archive The Macalester tradition of a weekly problem was started by Joseph Konhauser in 1968 In 1993 Stan Wagon assumed problem generating duties A previous book written by Wagon Konhauser and Dan Velleman Which Way Did the Bicycle Go gathered problems from the first twenty five years of the archive The title problem in that collection was

inspired by an error in logic made by Sherlock Holmes who attempted to determine the direction of a bicycle from the tracks of its wheels Here the title problem asks whether a bicycle track can always be distinguished from a unicycle track You ll be surprised by the answer      **NYSML-ARML Contests, 1983-1988** Gilbert Kessler, Lawrence Zimmerman, 1989

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