PROSPECTUS: "WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION: PROBLEMS, SOLUTIONS, AND COMMENTARY: 1985–2000"

KIRAN KEDLAYA, BJORN POONEN, AND RAVI VAKIL

The Mathematical Association of America has published two books about the William Lowell Putnam Competition, *William Lowell Putnam Mathematical Competition Problems and Solutions: 1938–1964* (by A.M Gleason, R.E. Greenwood, and L.M. Kelly) and *William Lowell Putnam Mathematical Competition, 1965–1984* (by G.L. Alexanderson, L.F. Klosinski, and L.C. Larson). Both the competitions and books are different in flavor. Recent Putnam competitions (and the second Putnam book) have favored solutions that are short and beautiful, and the first Putnam book has detailed discussion.

We propose to write *William Lowell Putnam Mathematical Competition: Problems, Solutions, and Commentary: 1985–2000*. (The title is tentative.) The bulk of the book would be the problems and solutions to those years of the Putnam competition. We would give a variety of solutions to many of the problems, to show how a different perspectives can yield different insights. (For example, undergraduates often don't understand how it is sometimes problematic to speak of "the best answer".)

We will also show the connections between the solutions and the undergraduate curriculum, as well as links to other problems. Our goal is to impart a broader perspective (for example, how the solution to a problem is typical of how mathematicians in a certain field think about a general idea).

We also expect to have a section of short bios of winners of this period, showing where they are now. Finally, we will include a summary of results.

It would be reasonable to have the book go to press in the spring of 2001. (The bulk would be ready by early fall 2000, and the sections relating to the 2000 competition would be added early in 2001.) The U.S. is hosting the International

Date: September 19, 1999.

Mathematical Olympiad in summer 2001, and it would be good to have a recent book of the premier post-secondary competition for the world to see.

DEPT. OF MATHEMATICS, MIT, CAMBRIDGE MA 02139
E-mail address: kedlaya@math.mit.edu

DEPT. OF MATHEMATICS, UNIVERSITY OF CALIFORNIA AT BERKELEY, 970 EVANS HALL, BERKELEY CA 94720–3840
E-mail address: poonen@math.berkeley.edu

DEPT. OF MATHEMATICS, MIT, CAMBRIDGE MA 02139
E-mail address: vakil@math.mit.edu