



## Problem-solving strategies

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Engel, Arthur

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Electronic books

Monografía

Problem-Solving Strategies is a unique collection of competition problems from over twenty major national and international mathematical competitions for high school students. The discussion of problem solving strategies is extensive. It is written for trainers and participants of contests of all levels up to the highest level: IMO, Tournament of the Towns, and the noncalculus parts of the Putnam Competition. It will appeal to high school teachers conducting a mathematics club who need a range of simple to complex problems and to those instructors wishing to pose a "problem of the week", "problem of the month", and "research problem of the year" to their students, thus bringing a creative atmosphere into their classrooms with continuous discussions of mathematical problems. This volume is a must-have for instructors wishing to enrich their teaching with some interesting non-routine problems and for individuals who are just interested in solving difficult and challenging problems. Each chapter starts with typical examples illustrating the central concepts and is followed by a number of carefully selected problems and their solutions. Most of the solutions are complete, but some merely point to the road leading to the final solution. Very few problems have no solutions. Readers interested in increasing the effectiveness of the book can do so by working on the examples in addition to the problems thereby increasing the number of problems to over 1300. In addition to being a valuable resource of mathematical problems and solution strategies, this volume is the most complete training book on the market

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