

Abstract

In this paper some problems in the international mathematical olympiad from the year 1994 to 1999 are analyzed in order to improve mathematics learning and teaching in Thailand. These problems are classified into 4 areas as follows : functional equations, number theory and combinatorics, inequalities, and geometry and geometric inequalities. The problems are selected in such a way that at least one problem in each area is chosen and the problems in the same area use different techniques to solve. The report on each problem consists of 2 parts : solution, and analysis. The analysis part is divided in the following categories : basic knowledge needed, main idea that leads to the solution, what to examine, what can be learned from the problem, what is missing in the high school program, and how knowledge is combined.

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