

Traces of Modern Mathematics or New Math in the International Mathematical Olympiad

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After the Second World War and during the 1950s, a sense of renewal swept through society.

Faith and confidence in science grew, as did the importance of education. Several stakeholders argued for a change in mathematics education: Both the content and the teaching methods needed to be modernised. This process took place in many different countries around the world, see e.g. De Bock (2023), and led to revised mathematics curricula called Modern Mathematics or New Math.

Modern Mathematics was based on algebraic structures such as groups, and mathematical knowledge was built up from set theory. New subjects entered the mathematics curriculum, including logic, statistics and analysis. Topics such as equivalence relations, binary or other non-decimal number systems, functions, ... were introduced. Less attention was paid to computational techniques and Euclidean geometry.

The heyday of modern mathematics was in the late 1960s and early 1970s. From the mid-1970s onwards, Modern Mathematics lost ground and was abandoned in many countries. Since the first two decades of the International Mathematical Olympiad (IMO) coincided with the rise and fall of Modern Mathematics, the aim of this paper is to explore the traces of this educational movement in the IMO.