POPULARIZATION OF THE PROBABILITIES THEORY AND STATISTICS IN SCHOOL THROUGH THE INTELLECTUAL COMPETITONS

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Since 2004, in accordance with the Federal Educational Standards, the probabilities theory and statistics had been included into the teaching practice in Russian schools. The process is long and troublesome, since it faces absence of teaching traditions and teachers' experience, lack of a clear understanding the objectives and content of the course and natural differences between school and university courses on probability by teachers and educational policymakers.

Leaving aside other aspects (teachers' preparation, development of the standards for diagnostic and exams, the introduction of new school programs, etc.), the talk focuses on one form of the work: organization of intellectual competitions on the probabilities theory and statistics for school students. Due to recent changes in education policy in Russia, student Olympiads become an engine for search and encouraging gifted students as well as orienting teachers for improving their teaching curriculum and practice.

Moscow Center for Continuous Mathematical Education conducts the Internet Olympiad for students of $6 - 11$ school years from 2008. Since 2015 the Olympiad is held in two rounds (first round takes place in schools using the 'Statgrad' online platform). In 2016 the Olympiad was firstly held in three rounds: school round, online individual round and final intramural round, which had been held on February 21, 2016.

Of interest is the principle of selection and preparation of problems for the Olympiad. In addition to the traditional problems participants are offered a choice to write an essay on a proposed topic. The report attempts to classify those topics and highlight the most popular ones among the students.

In addition, the talk makes a short overview of the selected problems, which from the organizers' point of view represent promising and perspective trends in the teaching of probability and statistics at school and provide the best response to the main objectives of the modern mathematics education.

The general aim of the talk is the positioning of intellectual competitions as a mean for developing a functional substantive kernel in teaching probabilities theory and statistics in the junior and high school.

References

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