

## **ABSTRACT**

The submitted bachelor's thesis deals with the relationship between the mathematical focus of tasks, success rate, popularity and point evaluation of tasks from the Pangea mathematical competition.

The analysis refers to tasks for the 9th grade of the Pangea competition from the final round in the 2019/2020 school year, which took place a year later, in the 2020/2021 school year, due to the coronavirus pandemic. Determining the relationships between the investigated variables is based on quantitative research on problem solvers.

Task success rate data was provided by Pangea competition management. The level of popularity of the tasks was determined based on data from the questionnaire, which is filled out annually by the solvers of the tasks immediately after submitting the solution. The characteristics and main focus of the tasks were described by the author of this work. The point evaluation of the tasks is determined by the authors of the tasks.

The analysis of the tasks refers to their assignment, the expected solution procedure, the expected difficulties in the solution and comments on the answer menu.

The thesis defines the terms gifted student, mathematical competition and word problem, and defines the specifics and mission of the Pangea competition.

The results of the work can be used when creating and setting the difficulty of tasks for mathematical competitions, for regular teaching and testing of pupils.

## **KEYWORDS**

mathematical competition; mathematical problem; solution methods; popularity of tasks; popularity parameters