



Straight line or line segment? Students' concepts and their thought processes

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Abstract. The article focuses on students' understanding of the concept of a straight line. Attention is paid to whether students of various ages work with only part of a straight line shown or if they are aware that it can be extended. The presented results were obtained by a qualitative analysis of tests given to nearly 1,500 Czech students. The paper introduces the statistics of students' solutions, and discusses the students' thought processes. The results show that most of the tested students, even after completing upper secondary school, are not aware that a straight line can be extended. Finally, we present some recommendations for fostering the appropriate concept of a straight line in mathematics teaching.

Key words and phrases: straight line, line segment, students' thoughts, teaching geometry.

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