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**Mathematical beauty and its characteristics – A study on the students' points of view.**

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Summary: Based on the statement, that the experience of mathematical beauty has a positive influence on students' motivations and attitudes towards mathematics and its study, the focus of this paper is the aesthetic component of mathematics. First, the role of aesthetics for perception and education is addressed. The appreciation of the beauty of mathematics is one of the wellsprings of this subject, not only in research but also in school education. This should have implications for the teaching of mathematics. However the beauty making elements have not been very well analysed. In particular, it is not clear to what extent the criteria for aesthetics found in literature are in agreement with emotions of students. A study on this topic is presented below. It involves students out of grades 5 to 12, as well as university mathematics teacher students, and reveals similarities and differences between the views of students of different educational levels.

*Classification:* E43 E44 C23 C24

*Keywords:* aesthetics; affect; attitudes; beliefs; emotions; mathematical beauty; educational research