Intuitive Explanations Of Mathematical Ideas

Abstract

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We are going to discuss advantages of intuitive explanations as supplementary didactic tools in mathematical education. A few examples of such explanations, related to linguistic factors, perception, physical models and common knowledge are taken into account. We consider also cross-domain explanations, inside mathematics itself. Intuitive explanations are among the most important components of the context of transmission of mathematical ideas. The text is based on our experiences in teaching mathematics to the students of cognitive science. The work on this text has been sponsored by the National Scientific Center research grant 2015/17/B/HS1/02232 *Extremal axioms: logical, mathematical and cognitive aspects*.