



Black Boxes and Teaching Mathematics

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Abstract:

One of the most important points of the common self understanding of mathematics teachers is the rule that everyone should understand the taught mathematics. The use of black boxes is not allowed. In every day life of school teachers resign sometimes: They hope that everyone has understood everything and go on to the next step. If students use a powerful tool like a CAS they use a black box. There is no hope that each student learns everything that happens inside a CAS. But many teachers hope that the use of a CAS improves the quality of teaching mathematics. How should we handle this contradiction? I will present some background informations about black boxes in our technological society and some ideas to work with black boxes in the classroom.
