

On the Visualization of the Calculus concepts

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Lecture Proposal for the ACDC strand

ABSTRACT

We analyzed the role of computers in teaching and learning calculus, in particular at determining derivatives of functions. In this talk we will present and analyze the students work on the visualization of the definition of the first derivative of function, by using mathematical packages Scientific WorkPlace, and GeoGebra, as a contribution to active learning. In fact the visualizations of a limit process will be presented. The students, working on their tasks, pointed out quite a few good and bad effects of computer-aided learning process caused by using the mentioned packages.

Keywords

CAS, visualization, teaching-learning process, calculus, computers, limit process, functions.