

MATHEMATICAL ASSOCIATION OF AMERICA, INC.
ABSTRACT OF PAPER

Title of Paper: PAPER DISCUSSION

Intuitive vs. rigorous approach
to teaching Calculus.

Time..... minutes.

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ABSTRACT

The abstract should be in the form of a brief and concise statement of the main results or points of view of the paper, without demonstrations and with a minimum of formulae. It should not exceed 100 words and should be compressed if possible into a single paragraph. It should be written in the third person. The abstract should be typewritten and in a form suitable for immediate publication in the MONTHLY.

Panel Discussion: Intuitive vs. Rigoristic Approach to Teaching Calculus

The panel discussed the trends of the last 15 years or so leading to a more rigorous approach in teaching the beginning calculus courses as compared to the older, intuitive and computational introduction to the subject. Some of the problems encountered are: frustration of both student and teacher in adding the more precise mathematical development as well as continuing to cover some applications and acquire some ability to carry out the mathematical manipulations; protests from colleagues in other disciplines that calculus is taught so abstractly that their students are not prepared to handle applications in such areas. However, the panel expressed the opinion that the trend toward more rigor has been healthy, if not overdone, and discussed instances where it is almost essential in developing a proper understanding. The major problem is how to make the calculus relevant to meet the needs of all. This may be an impossible task but teachers of mathematics should strive to do so.