

ZMATH 2015e.00715

Helfgott, Michel

Improved teaching of the calculus through the use of historical materials.

Swetz, Frank (ed.) et al., Learn from the masters. Proceedings of the international conference/workshop on the history of mathematics, held in Kristiansand, Norway, August of 1988. Providence, RI: Mathematical Association of America (ISBN 0-88385-703-0/pbk). Classr. Resour. Mater., 135-144 (1995).

Summary: Michel Helfgott has actually designed a calculus teaching sequence based on historical considerations. He relates his experiences in providing a cultural background for calculus.

Classification: I15 A30 D35 D45

Keywords: history of mathematics; university teaching; courses; genetic method; differential calculus; integral calculus; experience reports; sequences; limits; continuity; derivatives; mean value theorem; extreme value problems; curve sketching; Taylor's theorem; area; fundamental theorem of calculus; exponential functions; Taylor polynomials; integration methods; numerical integration; curves; polar coordinates