Preservice Teachers’ Conceptions of Mathematical Proof

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February 2006

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Research Apprenticeship Report Abstract

This paper reports on preservice high school mathematics teachers’ conceptions surrounding the purposes of mathematical proof in the discipline of mathematics and in mathematics education. Ten preservice teachers were interviewed over the purposes of proof and asked to respond to a series of researcher-generated proofs. The results of this qualitative study suggest that preservice teachers are both sensitive to the role of the intended audience and to the struggle in the trade-offs between rigor and explanation in proof writing.