

1046-Z1-1895

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In this talk, we will examine differentiability and continuity of functions of two variables. When moving from one variable functions to two variable functions, the extra dimension complicates student understanding of both continuity and differentiability. Proofs found in textbooks are technically correct but typically do not shed light on the examples in the same way that graphs of one variable functions do. In our presentation, we illustrate how to use cylindrical coordinates to understand why a function fails to be continuous (or differentiable) at a point. The ideas we illustrate help students to understand these concepts and empower them to develop their own examples. (Received September 16, 2008)