1023-Z1-303   **Michael Z. Spivey*** (`mspivey@ups.edu`), Department of Math and Computer Science, University of Puget Sound, Tacoma, WA 98416. *An Introduction to Product Calculus.*

A slight change in the definition of the derivative leads to a different kind of calculus, *product calculus*, complete with its own fundamental theorem, applications, and differentiation and integration techniques. For example, the product calculus derivative can be interpreted as an instantaneous growth *factor* rather than an instantaneous growth *rate*, and the product calculus integral can be used to determine geometric means rather than arithmetic means. The results in this talk are known, but they do not seem to be well-known outside of certain areas such as statistics and differential equations. The purpose of the talk is to present some of the basic ideas of product calculus with the hope of making it more known at the undergraduate level, where the similarities and differences with the standard calculus would be of interest to students. (Received September 04, 2006)