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Review of Apex Calculus Chapter concerning Limits

Comprehensiveness: The chapter discusses the concept of a limit as well as the importance of a limit in an informal manner that thoroughly explains what a limit is and what it is not. It includes all of the necessary elements of the topic; one-sided limits, limits involving infinity, and continuity. It is written so that someone new to the subject will be easily understand. The text provides both descriptive and graphical examples for a geometrical perspective thereby enhancing the understanding. It includes the formal definitions formatted in colored boxes to get the reader's attention. However, as indicated in the preface, it omits the proofs. It does however provide examples to show how to apply (prove) the theorems.

The exercise sets at the end of each section includes problems chosen to re-enforce the concepts presented.

Content Accuracy: I found no errors in the accuracy of the content.

Relevance/Longevity: Calculus is timeless. The examples in this chapter are elementary function examples appropriate for the topic. It is unnecessary for examples related to a specific application here.

Clarity: The material is presented in a non-formal manner that is easy to understand. I believe students will easily relate to this type of presentation.

Consistency: The manner in which the material is presented and its discussion is consistent throughout the chapter. It's an informal discussion that presents the theorems in an easy to understand manner.

Modularity: Unlike some formal Calculus texts, this chapter is separated into six sections with a total of 46 pages. The text is organized into sections not typically found in traditional Calculus texts. For example, this text treats applications of the derivative as a separate chapter rather than mixing applications into chapters presenting the theoretical concepts. This allows the user to take logical "chunks" of material in "modules".

Organization/Structure/Flow: I find this text to be organized in a manner similar to a traditional Calculus text with some exceptions. For example, as previously mentioned in the Modularity comments, the applications of a derivative are put into a separate chapter. This volume is not sufficient for a first semester calculus class as it stops at integration using u-substitution; we like to cover up to volumes by revolution.