

1056-BD-1115 **Philip B Yasskin*** (yasskin@math.tamu.edu), Department of Mathematics, Texas A&M University, 3368 TAMU, College Station, TX 77843-3368, and **Douglas B Meade** (meade@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208. *Electronic Study Guide – Maplelets for Calculus.*

Students often purchase paper study guides to help them study precalculus, single and multivariable calculus and other math courses. The most well known are the Schaum's Outlines. Others hire expensive tutors. In between are the many online homework systems and the newer electronic study guides pioneered by the Maplelets for Calculus (M4C). A problem with paper study guides is the small number of examples and students only get to read a full solution; there is no help in identifying the students' errors. Online homework systems are designed to produce grades and emphasize final answers. Correct solutions are displayed only after a grade is determined and there is no hint of their mistakes. Further there is very little variation between versions of a problem.

The M4C (See <http://m4c.math.tamu.edu>) are a collection of over 110 Maple applets emphasizing topics in precalculus and calculus. Each maplet is designed to ask a question and to provide step-by-step guidance through the solution, requiring correct answers to intermediate steps. Hints are available and when errors are detected, instructive feedback is provided. There are essentially an infinite number of problems on each topic. All of this enables students to use M4C as "a tutor without the tutor." (Received September 21, 2009)