

1077-O5-2498 **Barbara Margolius*** (b.margolius@csuohio.edu), Math Department, RT15th, 2121 Euclid Ave, Cleveland, OH 44115-2214, and **Daniel Gries, L Felipe Martins** and **Yuping Wu**. *A new kind of online homework: Flash enabled WeBWorK homework problems.*

Under our NSF-CCLI grant, DUE-0941388 we have developed a library of Flash applets embedded in WeBWorK homework assignments for entry level university mathematics courses including calculus, pre-calculus and differential equations. Applets are self-contained programs that play within the user's web browser. These applets are designed to interact with the WeBWorK online homework system to facilitate the creation of a richer array of assessment and enhancement of student learning than has been offered by most online homework resources or by standalone applets. Many of these problems are now available through the WeBWorK National Problem Library. We are continuing to add to the library as we develop new applets.

Flash applet enhanced homework problems presently in available require students to sketch the derivative or antiderivative of a given function; allow students to manipulate a solid of revolution; allow students to sketch on and overlay graphs that they are asked to identify as function, first and second derivative; allow drag and drop matching, or provide step by step solutions to problems. (Received September 22, 2011)