

962-G1-486

Agnes Rash* (arash@sju.edu), Dept of Mathematics and Computer Science, St. Joseph's University, 5600 City Ave, Philadelphia, PA 19131, and **Jean Marie McDill** (jmcDill@calpoly.edu), Mathematics Department, California Polytechnic State University, San Luis Obispo, CA 93407. *Dynamic Visualization Tools in Calculus as a Bridge to Economics and Finance*. Preliminary report.

A new package of interactive computer illustrations connects basic concepts in calculus with the principles of economics. This package is nearing completion with the addition of a dynamic supply-demand cobweb model and 3D illustrations that include indifference curves and constraints, partial derivatives with the CobbDouglas production function, and the visualization of linear regression as a 3D optimization in m and b . The tools are immediately accessible and intuitive. Students can use the cursor and sliders to initiate action and change parameters in the linked graphs. The authors and graphics/software designers Hubert Hohn and Richard Willmore have designed these tools to be interactive, dynamic and carefully focused on the concepts. (Received September 14, 2000)