1125-VR-2651   **Martha H Byrne*** (`byrnema@sonoma.edu`), Mathematics and Statistics Department, 1801 E Cotati Ave, Rohnert Park, CA 94928. *Cooperative Curve Sketching: An Activity for Classes.*

The 2014 Freeman report calls for mathematics faculty to abandon traditional lecturing in favor of active learning. This paper presents an active learning, cooperative activity for a derivative calculus class. Curve sketching is an important part of any derivative calculus curriculum as it requires students to synthesize many concepts and pieces of information about functions, their graphs, and their derivatives; however, commonly used textbooks present the problems with a procedural framework that allows students to complete the activities without engaging in the deep, critical thinking we hope for. The activity presented is designed to get students talking to each other and working collaboratively to synthesize given information, seek missing information, and sketch the curve of an unspecified function. While engaged in the activity, students need to talk about the relationships between concavity and asymptotes, continuity and differentiability, first and second derivatives, and extrema and roots. The presenter will discuss variations on the activity and provide the audience with a template to take back to their classrooms. (Received September 20, 2016)