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In an age where technology has fully emerged in college classrooms across the country and intertwined itself with undergraduate calculus curricula, there looms a threat of diminished ability among students to take derivatives and anti-derivatives by hand. To counteract this effect we developed the Daily Derivatives competition for our undergraduate Calculus 1 class at West Point. The scoring and conduct of the competition is loosely based off of the concept of adaptive testing found on standardized tests such as the GRE as well as the scoring algorithms found in many Nintendo Wii games. Incorporating the competition into classroom instruction was left entirely up to the individual instructors; as such we had half our 24 instructors choose to take advantage of this resource. In addition to providing a full description of the resources we developed for the Daily Derivatives, to include the scoring algorithm and implementation, this presentation covers the statistical analysis on its effectiveness. Initial findings based on student performance and feedback show favorable results for the Daily Derivatives competition. (Received September 21, 2009)