

1077-D5-700

Hillary Einziger* (einziger@math.psu.edu). *An iPad-based activity for learning to sketch the graph of the derivative of a given graph.*

This lesson plan uses graphs created in GeoGebra as the basis for an activity in which students use an iPad and stylus to practice sketching derivative graphs. Students are presented with the graph of a function, shown on a screen through a projector, and then one student at a time volunteers to try to sketch the derivative graph. Other students can offer suggestions and comments, and then they compare the sketch with the actual graph of the derivative. This lesson provides students with instant feedback as to whether they understand the concepts, it encourages students to discuss and experiment with their ideas, and it allows all the students in the class to see several different perspectives on how to solve similar problems. The lesson as planned requires only one iPad and a projector, as well as the presentation app Explain Everything. In a classroom equipped with multiple iPads or other tablets, this could easily be modified into a small group activity, where each group would consider the graphs and discuss how to draw the derivatives. Creating the graphs in GeoGebra and then saving them as PDF files allows the use of the iPads, so that students can draw directly on the given graphs. (Received September 10, 2011)