Laura DiMillo Barnes* (laura_d_barnes@uri.edu). Class Assignments as an Enhancement to Online Homework.

At the University of Rhode Island, Pre-Calculus is a coordinated course. The course is organized so that all sections cover the same curriculum, take common pre-tests and exams, and work homework through an online system. However, each instructor has approximately 10% of the course grade left to their discretion. Most instructors use that component for quizzes or worksheets that are similar to the online homework, text exercises or test questions. I choose to create Class Assignments that challenge students. One of my goals as a teacher is to produce critical thinkers (even at this level) and I don’t think the standard online or text problems provide that opportunity. My Class Assignments are usually applications of the concepts and often combine concepts. Further, the course does not allow the use of calculators, so these application problems require students to think of alternate ways to get an answer. As an example, here is a right triangle application problem: A person stands 12 feet from a statue. The angle of elevation from eye level to the top of the statue is 30 degrees and the angle of depression to the base of the statue is 15 degrees. How tall is the statue? (Hint: use trig identities to determine values and approximate your answer if necessary). (Received September 18, 2016)