Traditional Student success in undergraduate level mathematics, science, and engineering (MSE) courses depends on a firm understanding of pre-calculus material. Instructors at the United States Military Academy have identified a set of fundamental pre-calculus concepts that all students must possess in order to effectively understand the concepts presented in the school’s core academic program. However, every year approximately 5 percent of the freshmen enter under-prepared for success in the school’s MSE sequence. I will discuss a modification of the popular television game show, Survivor, as conducted in an undergraduate first semester developmental mathematics course. The focal point of this classroom application is a group-based competitive drill and practice activity designed to increase conceptual understanding in preparation for a fundamental concepts exam. This application takes advantage of available technology to boost instruction creativity and student interest in the classroom. The results of this activity include: increased understanding of the fundamental concepts, increased confidence for the fundamental concepts exam, and increased preparedness for the mathematics concepts presented in future MSE courses. (Received July 17, 2009)