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Facing the Challenges of Entry Level Calculus

One of the challenges that we face in an entry level Calculus class is the entirely different background and level of preparation that our students come from. Students arrive from different high schools across Canada, or perhaps entirely different school systems from across the world! It is our job to “get everyone on the same page” before we can even hope to discuss Calculus. So how do we ensure that students have the basics down so that they are capable of studying at this higher level? One way that I have helped students to check their basic knowledge is to give them a “Warm up Test”; a short assessment within the first week of class that exactly tests these basics. As beginners to the University scene, this gives students exposure to University testing as well as giving them information about what topics they need to work on.

Contrary to their high school careers where many admit that memorization played a major role in their success, we are obliged to train students how to study productively while encouraging life long learning. With this idea in mind, we will discuss a few methods for combatting the memorization method in favour of strong problem solving skills, and the ability to apply knowledge outside of in-class problems.