

**University of Toronto at Scarborough  
Department of Computer and Mathematical Sciences**

**MAT A31**

**Fall 2019**

**Assignment # 3**

You are expected to **work on this assignment** prior to your first tutorial in the week of **September 23<sup>rd</sup>, 2019**. You may ask questions about this assignment in this tutorial.

At the beginning of your tutorial in the **week of September 30<sup>th</sup>, 2019** you will be asked to **hand in** the assignment. NO ASSIGNMENTS will be accepted at the end of the tutorial or after the tutorial. Assignments MUST BE submitted ONLY in the tutorial you are registered for.

**Midterm Test will take place on Friday, October 11<sup>th</sup>, 2019 from 3pm to 5pm in BV260, HL170, HLB 101.**

**The room assignment will be posted in the week of October 7<sup>th</sup>.**

**A. Readings:**

1. Laura Taalman, Peter Kohn 'Calculus, Single variable'  
Chapter 1: Limits Sections 1.1-1.2

**B. Problems:**

Focus of Assignment - precise (geometric) definition of Limit.

1. Ch 1.1: ## 2, 4, 7, 8, 30, 36, 54, 60, 64, **78, 80**.
2. page 97: Logical quantifiers (5 questions) rewrite using math symbols  $\forall, \exists, |, \Rightarrow, \Leftrightarrow, \in, \notin, \cup, \cap$
4. Ch 1.2: ## 1(b,d,f,g), 6, 8, 10, 12, 14, **16**, 20, 22, 30, 32, 34, **44**, 48, 56, 58, 60, **70**.