

Quiz 2- June 4th in Tutorial

Quiz 2 will cover Sections 1.8 (all) and 2.1 (page 43 to end of Theorem 2.8 on page 47, then the part on vector valued functions starting on the bottom of page 50 until end of section).

The format of this quiz will adopt what will now be standard for the rest of the course: A Definition, an Application and a Proof. It will be written in the last 20 minutes of tutorial.

Definitions: Uniform Continuity, Holder continuity, Differentiability for $\mathbb{R} \rightarrow \mathbb{R}$ and $\mathbb{R} \rightarrow \mathbb{R}^m$, Rolle's Theorem, Mean Value Theorem Statements.

Applications: Show functions are or are not uniformly continuous, Example of a function differentiable at a given point and computing the derivative, exercises 2-4 in 2.1

Proofs: Theorem 1.33, Exercises 1,3,4,5 of 1.7. Equivalence of old and new definition of differentiability, proofs of 2.5,2.6, 2.7, 2.8a,b,c, last paragraph on page 51, Exercises 1,8,9,10 for 2.1, product and quotient rule using new definition of differentiability.