Quiz 5 - July 9th in Tutorial

Quiz 5 will cover Sections 3.1, 3.2, and 3.3 (up to and including page 130).

The format of this quiz is the standard one for this course: A Definition, an Application and a Proof. It will be written in the last 15 minutes of tutorial.

Definitions and Statements of Theorems:

- §3.1: Theorem 3.1(IFT), knowing enough of Theorem 3.9 to be able to quote it for the purpose of applying the theorem.
- §3.2: representations of smooth curve in R2, smooth curve.
- §3.3: representations of smooth surface and smooth curve in $\mathbb{R}^3$, regularity conditions, smooth surface (page 128).

Examples and Applications:

- §3.1: applying Corollary 3.3, examples 1,2,3, exercises 1,3-9.
- §3.2: converting representations to one another, examples 1-7, exercises 1-5.
- §3.3: converting one representation to another, examples 1,2, exercises 1-6.

Proofs:

- §3.1: proof of parts of IFT (Theorem 3.1), proof of Corollary 3.3 (from Theorem 3.1), proof of a linear version of Theorem 3.9, exercise 2.
- §3.2: proof of Theorem 3.11, exercise 6.
- §3.3: proof of Theorem 3.15, exercise 7.