

Assignment 1 – MA 123F

Due at the beginning of class: Thursday, Sept. 16, 2010

Exercises are taken from the textbook (Stewart's *Calculus : Concepts & Contexts*, Fourth Edition).

To be handed in

Section 2.2: 4, 6, 8, 14, 16

Section 2.3: 10, 12, 14, 16, 18, 24, 30, 36

Extra credit question: As mentioned in class, the definition of limit in the book (definition 1 of section 2.2) is a lie. Explain how that definition is different from the one given in class; you may use an example to illustrate the difference. For ease of reference, the definition given in class is the following:

Definition. We write

$$\lim_{x \rightarrow a} f(x) = L$$

if x being close (but not equal) to a forces $f(x)$ to be close to L .

Remark. Just to be clear, the formal definition in appendix D of the book is correct (and is the standard formal definition).

Practice problems (*not* to be handed in)

Section 2.2: 1, 3, 5, 7, 13, 15

Section 2.3: 1, 5, 9, 13, 15, 19, 21, 29, 31, 47, 49