

## Homework Set 1: (Lab 1A) LaTeX and the LaTeX book

1. Look in the LaTeX book to answer the following questions. You may either type your answers or write them on a piece of paper.

(a) (Pages 31-34) How do I create a list of items, like:

1. Some text Here
2. Some text Here
  - (a) Description
  - (b) Description

What's the difference between "enumerate" and "itemize"?

(b) (Pages 43-65) How would I typeset the following?

i.  $\int_a^b f(x) dx = F(b) - F(a)$

ii.  $\lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i^*) \Delta x_i = \int_a^b f(x) dx$

iii.  $\lim_{\theta \rightarrow 0} \frac{\sin(\theta)}{\theta} = 1$

iv.  $y = e^{2^x}$

v. I ♥ Math!

vi. What's a "phantom"?

vii. In the paragraph on page 44 starting with "It is preferable...", add another option to displaying mathematical equations: Use double dollar signs, like `$$ Math text $$`. Show that this is the case by writing the LaTeX code for  $c^2 = a^2 + b^2$  in each of the three ways described in that paragraph.

2. Type the sample (next page) in LaTeX so that your output looks like the original. Turn in a printout of the ".tex" file, and the output from dvips.