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. $\lim\limits_{n\to\infty} \sum\limits_{i=1}^{n} f(x_i^*)\Delta x_i = \int_a^b f(x)\,dx$

   iii. $\lim\limits_{\theta\to 0} \dfrac{\sin(\theta)}{\theta} = 1$

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

   v. I $\heartsuit$ Math!

   vi. What's a "phantom"?

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`.