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This is a sample file for the text formatter  $\LaTeX$ . I require you to use  $\LaTeX$  for the following reasons:

- It produces the best output of text, figures, and equations of any program I have seen.
- It is machine-independent. You can e-mail ASCII versions of most relevant files.
- It is the tool of choice for many research scientists and engineers. Many journals accept  $\LaTeX$  submissions, and many books are written in  $\LaTeX$ .

Some basic instructions are given below. Put your text in here. You can be a little sloppy about spacing. It adjusts the text to look good. You can make the text smaller. You can make the text tiny. Skip a line for a new paragraph.

You can use italics (*e.g. Math is everywhere*) or **bold**. Greek letters are a snap:  $\Psi$ ,  $\psi$ ,  $\Phi$ ,  $\phi$ . Equations within text are easy— The equation of a straight line is  $y = mx + b$ . You can also set aside equations like so:

$$\nabla \cdot \mathbf{u} = 0, \tag{1}$$

$$\frac{dT_n}{dt} = \sum_{n=1}^N (-\mu - n^2\pi^2) T_n(t). \tag{2}$$

References<sup>1</sup> are available. If you have a postscript file, say `sample.figure.eps`, in the same local directory, you can insert the file as a figure. Figure 1, below, gives plots of various Bessel functions.

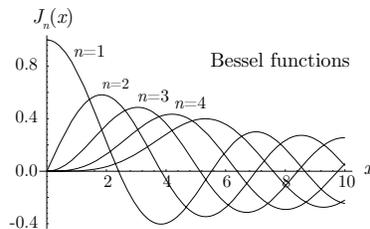


Figure 1: Sample figure plotting Bessel functions

### Running $\LaTeX$

You can create a  $\LaTeX$  file with any text editor (`vi`, `emacs`, `gedit`, etc.). To produce a document, you need to run the  $\LaTeX$  application on the text file. The text file must have the suffix “`.tex`” On the Linux system this is done via the command

```
latex2pdf file.tex
```

This generates the file `file.pdf`.

Alternatively you can use `TeXShop` on a Macintosh or `MiKTeX` on a Windows-based machine. The `.tex` file must have a closing statement as below.

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<sup>1</sup>Lamport, L., 1986,  *$\LaTeX$ : User's Guide & Reference Manual*, Addison-Wesley: Reading, Massachusetts.