

# L<sup>A</sup>T<sub>E</sub>X

I am asking you to become familiar with writing mathematics in L<sup>A</sup>T<sub>E</sub>X. To produce a paper, you need to use some sort of editor to prepare a file that includes the necessary L<sup>A</sup>T<sub>E</sub>X commands. Then you need to process it, and print it.

To prepare the paper, you may use any editor that can produce a plain text file with no hidden commands. For example you could use “Notepad” (under “All Programs” → “Accessories”), saving your file as an plain text file with no hidden commands or unusual symbols. The file must be saved with the extension “.tex”; e.g., “mypaper.tex”. Some like the editor “pico” on the Unix system. Or you may wish to use Microsoft Word, turning off all “smart” features.

To see samples of L<sup>A</sup>T<sub>E</sub>X files and what commands must go into them to produce your document, see, for example,

[http://orion.math.iastate.edu/burkardt/latex\\_intro/latex\\_intro.html](http://orion.math.iastate.edu/burkardt/latex_intro/latex_intro.html),  
<http://www.math.harvard.edu/texman>,  
<http://www.maths.tcd.ie/~dwilkins/LaTeXPrimer>,  
or [http://www.artofproblemsolving.com/LaTeX/AoPS\\_L\\_About.php](http://www.artofproblemsolving.com/LaTeX/AoPS_L_About.php).

The last website listed has some nice examples of complete L<sup>A</sup>T<sub>E</sub>X files.

Once you have prepared your file, save it in a Unix directory (the “U” drive).

To process it, you need to open a Unix window. One way to do this is to run “PuTTY” from

<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>,

using “t.ms.uky.edu” as the Host Name. After logging in you can use “ls” to list files, “cd directoryname” to move down into a directory, and “cd ..” to move up one directory. When you are in the directory containing your file, use the command “pdflatex mypaper” (or whatever is the name of your file) to produce a pdf file. (This won’t work when you include certain embedded diagrams, but we can address this later as needed.)

You can then use the Windows system to go into the appropriate U directory and click on the pdf file to view and print it.