

A First LaTeX Document

1. Open a text editor (in a terminal window, type `xemacs`)
2. The following lines are *required* in a LaTeX document, and will appear in every LaTeX file:

```
\documentclass{amsart}

\begin{document}

\end{document}
```

3. Now fill in some text. The following is a statement of the Mean Value Theorem. This also shows you the format you'll use in writing up your labs:

```
\documentclass{amsart}

\title{The Mean Value Theorem}
\author{Your Name(s) Here}

\begin{document}

\maketitle

{\bf THE MEAN VALUE THEOREM:} Let  $f$  be a continuous function
on the interval  $(a,b)$  and differentiable on  $(a,b)$ . Then there
is a  $c$  in  $(a,b)$  such that:

$$f'(c) = \frac{f(b) - f(a)}{b - a}$$


\end{document}
```

4. Save this file as `MVT.tex`
5. Compile by going to “Tools”, then “Latex” from the xemacs buttons.
By compiling, you should have created a new file `MVT.dvi`. Find that file and click on its icon to see the results.
6. Note that we:
 - Created boldface text using `{\bf text}`

- To set off mathematics within a line of text, use single dollar signs, as in (a,b)
- To set off mathematics on its own line, use double dollar signs,
$$\text{Math text}$$
- Download `template.tex` from our class website and save it so that you can use it later.