

Some Useful Commands

Katie Thompson

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- The L^AT_EX logo is created by typing:

```
\LaTeX
```

- To create Greek letters you type a backslash followed by the name of the Greek letter.

```
\alpha
```

```
\beta
```

```
\gamma
```

```
etc.
```

- To capitalize the Greek letter, capitalize the first letter of the word for the greek letter.

```
\Omega
```

```
\Pi
```

- Fractions use the command

```
\frac{}{}
```

- Use the caret symbol for superscripts and the underscore symbol for subscripts.

```
 $x^{10}$ 
```

will create x^{10} . To display x^{10} , put the 10 in curly brackets.

- \LaTeX has commands for many of the standard functions. Examples of this are:

```
\sin
\cos
\log
etc.
```

- The command for infinity is

```
\infty
```

- Some other useful commands are:

```
\sum_{k=1}^{\infty}
\int_0^1
\lim{x\rightarrow 3}
\sqrt{x}
\sqrt[3]{x}
\cap (intersection)
\cup (union)
\subseteq
\emptyset
\therefore
\forall
\exists
\therefore
\ne (not equal)
\ge (greater than or equal to)
\le (less than or equal to)
\mathbb{R} (symbol for real numbers)
```

- To create a new page, type a backslash followed by `newpage`.
- You may also underline, italicize, and boldface text by using the respective commands:

```
\underline{}
\emph{}
\textbf{}
```

- To create bulleted lists, use the itemize environment. Each entry should be preceded by a backslash item.

```
\begin{itemize}
\item One item typed here.
\item Next item typed here.
\end{itemize}
```

- You can also create numbered lists with the enumerate environment.

```
\begin{enumerate}
\item First item here.
\item Second item here.
\item And so on.
\end{enumerate}
```

- A double backslash forces a line break.
- To center text use the center environment.

```
\begin{center}
\end{center}
```

- In some cases, you may wanted to put a symbol such as a tilde over a letter. Use the following commands.

```
\tilde{}
\hat{}
\vec{}
\dot{}
```

- There may be times when you need larger parentheses or brackets. For example.

```
$(\frac{x}{y})$
```

creates $(\frac{x}{y})$. To make the parenthesis the correct size use:

```
$$\left(\frac{x}{y}\right)$$
```

- Arrays

```


$$\left(
\begin{array}{rcl}
\alpha&\beta&\gamma\\
\delta&\epsilon&\zeta\\
\eta&\theta&\iota
\end{array}
\right)$$


```

creates

$$\begin{pmatrix} \alpha & \beta & \gamma \\ \delta & \epsilon & \zeta \\ \eta & \theta & \iota \end{pmatrix}$$

- Tables

```

\begin{tabular}{|r|c|l|}
\hline
Right & Center & Left\\
\hline
alpha&beta&gamma\\
delta&epsilon&zeta\\
eta&theta&iota\\
\hline
\end{tabular}

```

creates

Right	Center	Left
alpha	beta	gamma
delta	epsilon	zeta
eta	theta	iota

References

- [1] <http://frodo.elon.edu/tutorial/tutorial/index.html>