Introduction to \LaTeX

Scott Harper

16th October 2017
Why should I use \texttt{\LaTeX}?

- It produces attractive documents.
- It makes your life easier.
- It is the standard way of producing a document in mathematics.

But why . . . ?

- Referencing, numbering, contents page and index are all easy.
- Typsetting mathematical expressions is easy.
- Content is kept separate from appearance.
Why should I use \LaTeX?  

It produces **attractive** documents.
Why should I use LaTeX?

It produces attractive documents.

It makes your life easier.
Why should I use LaTeX?

It produces **attractive** documents.

It makes your life **easier**.

It is the **standard** way of producing a document in mathematics.
Why should I use LaTeX?

It produces attractive documents.

It makes your life easier.

It is the standard way of producing a document in mathematics.

But why ...?
Why should I use \LaTeX? 

It produces \textbf{attractive} documents.

It makes your life \textbf{easier}.

It is the \textbf{standard} way of producing a document in mathematics.

But why ...?

\begin{itemize}
\item Referencing, numbering, contents page and index are all easy.
\end{itemize}
Why should I use \texttt{LATEX}?

It produces \textbf{attractive} documents.

It makes your life \textbf{easier}.

It is the \textbf{standard} way of producing a document in mathematics.

But why ...?

- Referencing, numbering, contents page and index are all easy.
- Typsetting mathematical expressions is easy.
Why should I use LaTeX?

It produces **attractive** documents.

It makes your life **easier**.

It is the **standard** way of producing a document in mathematics.

But why ...?

- Referencing, numbering, contents page and index are all easy.
- Typsetting mathematical expressions is easy.
- Content is kept separate from appearance.
Examples of Normal Subgroups

Find an example of $K \leq H \leq G$ such that $K \leq H$ and $H \leq G$ but $K \nleq G$.

**Solution** If $G = D_8 = \langle a, b \rangle$, then $H = \langle a^2, b \rangle \leq G$ since $|G : H| = 2$ and $K = \langle b \rangle \leq H$ since $|H : K| = 2$, but $K \nleq G$ since $aba^{-1} = a^3b \notin \langle b \rangle$. (There are many examples; this is the smallest.)

**Extension** A subgroup $H \leq G$ is a *characteristic subgroup* of $G$ if $\varphi(H) = H$, for all automorphisms $\varphi \in \text{Aut}(G)$. We write $H \text{ char } G$. Prove that every characteristic subgroup of $G$ is normal. Find an example of a normal subgroup which is not characteristic. Prove that if $K \text{ char } H$ and $H \text{ char } G$ then $K \text{ char } G$. Prove that if $K \text{ char } H$ and $H \leq G$ then $K \leq G$. Prove that $Z(G) \text{ char } G$. (See Sheet 2 Q6(c).)

Examples of Quotients

Let $N \trianglelefteq G$.

(i) Prove that if $G$ is abelian, then $N$ and $G/N$ are abelian.

**Solution** Let $G$ be an abelian group. Let $x, y \in N$. Then $x, y \in G$ so $xy = yx$. Therefore, $N$ is abelian. Now let $aN, bN \in G/N$. Then $(aN)(bN) = (ab)N = (ba)N = (bN)(aN)$ since $G$ is abelian. Therefore, $G/N$ is abelian.
How do I get started?
How do I get started?

Source file: first.tex  compilation  Compiled file: first.pdf

\documentclass{article}
\begin{document}
This is a very simple document.
\end{document}

This is a very simple document.
How do I get started?

Source file: first.tex  \[\text{compilation}\]  Compiled file: first.pdf

\documentclass{article}
\begin{document}
This is a very simple document.
\end{document}
How do I get started?

Source file: first.tex  \[\text{compilation}\]  Compiled file: first.pdf

\documentclass{article}
\begin{document}
This is a very simple document.
\end{document}
How do I get started?

Source file: first.tex  \[\text{compilation}\]  Compiled file: first.pdf

\documentclass{article}
\begin{document}
This is a very simple document.
\end{document}

This is a very simple document.
How do I get started?

Source file: first.tex  →  Compiled file: first.pdf
How do I get started?

Source file: first.tex  \[\xrightarrow{\text{compilation}}\]  Compiled file: first.pdf

**Online** ShareLaTeX
How do I get started?

Source file: first.tex  \[\rightarrow\]  Compiled file: first.pdf

Online  ShareLaTeX

- Everything is online.
How do I get started?

Source file: first.tex  \[\xrightarrow{\text{compilation}}\]  Compiled file: first.pdf

**Online** ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another LaTeX editor)
How do I get started?

Source file: first.tex \[\xrightarrow{\text{compilation}}\] Compiled file: first.pdf

**Online** ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another \LaTeX\ editor)
- Compiler:
How do I get started?

Source file: first.tex \[\xrightarrow{\text{compilation}}\] Compiled file: first.pdf

**Online** ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another \LaTeX{} editor)
- Compiler:
  - **Mac** MacTeX
    tug.org/mactex/mactex-download
How do I get started?

Source file: first.tex  \[\xrightarrow{\text{compilation}}\]  Compiled file: first.pdf

**Online**  ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another \LaTeX editor)
- Compiler:
  - **Mac**  MacTeX
tug.org/mactex/mactex-download
  - **Windows**  MiKTeX
miktex.org/howto/install-miktex
How do I get started?

Source file: first.tex \[\text{compilation}\] Compiled file: first.pdf

**Online** ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another LaTeX editor)
- Compiler:
  - **Mac** MacTeX
tug.org/mactex/mactex-download
  - **Windows** MiKTeX
    miktex.org/howto/install-miktex

**Terminal**
- Editor: vim (or another text editor)
How do I get started?

Source file: first.tex → compilation → Compiled file: first.pdf

**Online** ShareLaTeX
- Everything is online.

**Desktop**
- Editor: TeXstudio (or another LaTeX editor)
- Compiler:
  - Mac: MacTeX
  - tug.org/mactex/mactex-download
  - Windows: MiKTeX
  - miktex.org/howto/install-miktex

**Terminal**
- Editor: vim (or another text editor)
- Compiler: pdflatex
The Basics

Spaces
Many spaces is the same as one; use \ to add extra spaces

Paragraphs
Many blank lines is the same as one; these start paragraphs

Quotation Marks
■ ‵ gives ' single'
■ ‵‵ gives “ double”

Hyphens and Dashes
■ ice-cream gives ice-cream
■ 9am--5pm gives 9am–5pm

Em dashes
People used to use ---, which gives —, for parenthesis and pauses, but now people use --, which gives –
The Basics

**Spaces** Many spaces is the same as one; use \ to add extra spaces
The Basics

**Spaces**  Many spaces is the same as one; use \ to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs
The Basics

**Spaces**  Many spaces is the same as one; use `\` to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
The Basics

**Spaces**  Many spaces is the same as one; use \ to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
- ‘single’ gives ‘single’
The Basics

**Spaces**  Many spaces is the same as one; use \ to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
- ‘single’ gives ‘single’
- “double” gives “double”
The Basics

**Spaces**  Many spaces is the same as one; use \ to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
- ‘single’ gives ‘single’
- “double” gives “double”

**Hyphens and Dashes**
The Basics

Spaces Many spaces is the same as one; use \ to add extra spaces

Paragraphs Many blank lines is the same as one; these start paragraphs

Quotation Marks
- ‘single’ gives ‘single’
- “double” gives “double”

Hyphens and Dashes
- ice-cream gives ice-cream
The Basics

**Spaces**  Many spaces is the same as one; use `\` to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
- `‘single’` gives ‘single’
- `“double”` gives “double”

**Hyphens and Dashes**
- `ice-cream` gives ice-cream
- `9am--5pm` gives 9am–5pm
The Basics

Spaces  Many spaces is the same as one; use \ to add extra spaces

Paragraphs  Many blank lines is the same as one; these start paragraphs

Quotation Marks
- ‘single’ gives ‘single’
- “double” gives “double”

Hyphens and Dashes
- ice-cream gives ice-cream
- 9am--5pm gives 9am–5pm

Em dashes
The Basics

**Spaces**  Many spaces is the same as one; use \ to add extra spaces

**Paragraphs**  Many blank lines is the same as one; these start paragraphs

**Quotation Marks**
- ‘single’ gives ‘single’
- “double” gives “double”

**Hyphens and Dashes**
- ice-cream gives ice-cream
- 9am--5pm gives 9am–5pm

**Em dashes**
People used to use ---, which gives —, for parenthesis and pauses, but now people use --, which gives –
Symbols

Inserting symbols is quick and easy.
Symbols

Inserting symbols is quick and easy.

- \pounds gives £
Symbols

Inserting symbols is quick and easy.

- \pounds gives £
- \dots gives ...
Symbols

Inserting symbols is quick and easy.

- \texttt{\pounds} gives £
- \texttt{\dots} gives ...
- \texttt{\LaTeX} gives \LaTeX
Symbols

Inserting symbols is quick and easy.

- \pounds gives £
- \dots gives ...
- \LaTeX gives \textsc{LaTeX}

To find out the command for a symbol use

the Detexify app
Symbols

Inserting symbols is quick and easy.

- \pounds gives £
- \dots gives ...
- \LaTeX gives \LaTeX

To find out the command for a symbol use

the Detexify app

or consult

The Comprehensive \LaTeX Symbol List
Symbols

Inserting symbols is quick and easy.

- \pounds gives £
- \dots gives ...
- \LaTeX gives \LaTeX

To find out the command for a symbol use the Detexify app

or consult

*The Comprehensive \LaTeX Symbol List*

**Tip** Symbols usually gobble all spaces after them, so \LaTeX is fantastic! is typeset as \LaTeX is fantastic!
Formatting

Text can easily be formatted.

Tip
To emphasise the word “maths” write \textit{maths} which gives maths. This is better than \emph{maths} because it separates the content from the appearance: you can change the definition of \emph{ later.
Text can easily be formatted.

- \textbf{bold font} gives bold font

Tip
To emphasise the word "maths" write \emph{maths} which gives maths. This is better than \textit{maths} because it separates the content from the appearance: you can change the definition of \emph later.
Text can easily be formatted.

- \textbf{bold font} gives \textbf{bold font}
- \textit{italic font} gives \textit{italic font}

Tip: To emphasise the word "maths" write \emph{maths} which gives \emph{maths}. This is better than \textit{maths} because it separates the content from the appearance: you can change the definition of \emph{maths} later.
Text can easily be formatted.

- \textbf{bold font} gives bold font
- \textit{italic font} gives italic font
- \texttt{teletype font} gives teletype font

Tip: To emphasise the word “maths” write \emph{maths} which gives maths. This is better than \textit{maths} because it separates the content from the appearance: you can change the definition of \emph later.
Text can easily be formatted.

- \textbf{bold font} gives \textbf{bold font}
- \textit{italic font} gives \textit{italic font}
- \texttt{teletype font} gives \texttt{teletype font}
- \textsc{small caps} gives \textsc{small caps}

---

Tip

To emphasise the word "maths" write \emph{maths} which gives \textit{maths}. This is better than \textit{maths} because it separates the content from the appearance: you can change the definition of \emph{later.}
Formatting

Text can easily be formatted.

- \textbf{bold font} gives bold font
- \textit{italic font} gives italic font
- \texttt{teletype font} gives teletype font
- \textsc{small caps} gives SMALL CAPS

**Tip** To emphasise the word “maths” write

\emph{maths}

which gives maths.
Text can easily be formatted.

- \textbf{bold font} gives **bold font**
- \textit{italic font} gives *italic font*
- \texttt{teletype font} gives **teletype font**
- \textsc{small caps} gives **small caps**

**Tip** To emphasise the word “maths” write

\textbf{maths}

which gives *maths*.

This is better than \textit{maths} because it separates the content from the appearance: you can change the definition of \textbf{emph} later.
Environments

Environments allow text to be presented in various styles.
Environments

Environments allow text to be presented in various styles.

\begin{itemize}
\item This is a list.
\item This is the second item.
\item These are easy to make.
\end{itemize}

1. Introduce $\LaTeX$
2. Explain things
3. Do \textit{not} forget lists
Environments

Environments allow text to be presented in various styles.

\begin{itemize}
\item This is a list.
\item This is the second item.
\item These are easy to make.
\end{itemize}

\begin{enumerate}
\item Introduce \LaTeX
\item Explain things
\item Do \emph{not} forget lists
\end{enumerate}
Environments

Environments allow text to be presented in various styles.

\begin{itemize}
\item This is a list.
\item This is the second item.
\item These are easy to make.
\end{itemize}

\begin{enumerate}
\item Introduce \LaTeX
\item Explain things
\item Do \textit{not} forget lists
\end{enumerate}
Environments allow text to be presented in various styles.

\begin{itemize}
\item This is a list.
\item This is the second item.
\item These are easy to make.
\end{itemize}

\begin{enumerate}
\item Introduce \LaTeX
\item Explain things
\item Do \textit{not} forget lists
\end{enumerate}

- This is a list.
- This is the second item.
- These are easy to make.

1. Introduce \LaTeX
2. Explain things
3. Do \textit{not} forget lists
Packages

Some commands and environments require extra packages to be loaded.
Packages

Some commands and environments require extra packages to be loaded.

For example, load the `amsmath` package with the following in the preamble

\usepackage{amsmath}
Packages

Some commands and environments require extra **packages** to be loaded.

For example, load the `amsmath` package with the following in the preamble

\usepackage{amsmath}

**Tip** Multiple packages can be loaded on a single line.
Packages

Some commands and environments require extra packages to be loaded.

For example, load the `amsmath` package with the following in the preamble

```latex
\usepackage{amsmath}
```

**Tip** Multiple packages can be loaded on a single line.

I advise you always load the following packages.

```latex
\usepackage{amsmath, amssymb, amsfonts, amsthm}
```
Mathematics

Everything so far has been in text mode. In LaTeX mathematics is typeset in math mode, which comes in two flavours: inline and display.

Inline maths looks like this: \( y = ax + b \) which is given by \( y=ax+b \).

Display maths looks like this: \( y = ax + b \) which is given by \[ y=ax+b \].

Use \(^\) for superscripts and \(_\) for subscripts.

\[ y_n = x^{10} \] gives \( y_n = x^{10} \).

Note: Longer expressions must be enclosed in braces { . . . }. 
Mathematics

Everything so far has been in **text mode**. In [[LaTeX]] mathematics is typeset in **math mode**, which comes in two flavours: **inline** and **display**.
Everything so far has been in **text mode**. In **\LaTeX** mathematics is typeset in **math mode**, which comes in two flavours: **inline** and **display**.

Inline maths looks like this $y = ax + b$ which is given by $y=ax+b$.

Note: Longer expressions must be enclosed in braces {}.
Mathematics

Everything so far has been in text mode. In \LaTeX{} mathematics is typeset in math mode, which comes in two flavours: inline and display.

Inline maths looks like this $y = ax + b$ which is given by $y=ax+b$.

Display maths looks like this

$$y = ax + b$$

which is given by \[ y=ax+b \].
Everything so far has been in **text mode**. In \LaTeX{} mathematics is typeset in **math mode**, which comes in two flavours: **inline** and **display**.

Inline maths looks like this $y = ax + b$ which is given by $y=ax+b$.

Display maths looks like this

\[
y = ax + b
\]

which is given by $[ y=ax+b ]$.

Use ^ for **superscripts** and _ for **subscripts**.
Mathematics

Everything so far has been in **text mode**. In *\LaTeX* mathematics is typeset in **math mode**, which comes in two flavours: **inline** and **display**.

Inline maths looks like this $y = ax + b$ which is given by $y=ax+b$.

Display maths looks like this

$$y = ax + b$$

which is given by \[ y=ax+b \].

Use ^ for **superscripts** and _ for **subscripts**.

- $y_n=x^{10}$ gives $y_n = x^{10}$
Everything so far has been in **text mode**. In \LaTeX\ mathematics is typeset in **math mode**, which comes in two flavours: **inline** and **display**.

Inline maths looks like this \( y = ax + b \) which is given by \( y=ax+b \).

Display maths looks like this

\[
y = ax + b
\]

which is given by \[
y=ax+b
\].

Use ^ for **superscripts** and _ for **subscripts**.

- \( y_n=x^{10} \) gives \( y_n = x^{10} \)

**Note** Longer expressions must be enclosed in braces { ... }. 
Use $\sqrt{}$ to write roots.

$\sqrt{9} = 3$

$\sqrt[3]{9-1} = 2$

Use $\frac{}{}$ for fractions.

$\frac{1}{2} = \frac{2}{4}$

$\frac{1+\sqrt{5}}{2}$

Note: Spaces are ignored in math mode.
Use $\sqrt{\text{ }}$ to write roots.

\[
\sqrt{9} = 3
\]

\[
\sqrt[3]{9-1} = 2
\]

Use $\frac{\text{ }}{\text{ }}$ for fractions.

\[
\frac{1}{2} = \frac{2}{4}
\]

\[
\frac{1+\sqrt{5}}{2}
\]
Use $\sqrt{}$ to write \textit{roots}.

- $\sqrt{9}=3$ gives $\sqrt{9} = 3$

- $\frac{1}{2} = \frac{2}{4}$ gives $\frac{1}{2} = \frac{2}{4}$

- $\frac{1+\sqrt{5}}{2}$ gives $\frac{1+\sqrt{5}}{2}$
Use \texttt{\textbackslash sqrt} to write \texttt{roots}.

\begin{itemize}
  \item $\texttt{\sqrt{9}}=3$ gives $\sqrt{9} = 3$
  \item $\texttt{\sqrt[3]{9-1}}=2$ gives $\sqrt[3]{9-1} = 2$
\end{itemize}

Note spaces are ignored in math mode.
Use \texttt{\sqrt} to write \textit{roots}.

- $\sqrt{9}=3$ gives $\sqrt{9} = 3$
- $\sqrt[3]{9-1}=2$ gives $\sqrt[3]{9 - 1} = 2$

Use \texttt{\frac} for \textit{fractions}.
Use \texttt{\sqrt} to write \textit{roots}.

- $\sqrt{9} = 3$ gives $\sqrt{9} = 3$
- $\sqrt[3]{9-1} = 2$ gives $\sqrt[3]{9-1} = 2$

Use \texttt{\frac} for \textit{fractions}.

- $\frac{1}{2} = \frac{2}{4}$ gives $\frac{1}{2} = \frac{2}{4}$
Use $\sqrt{\text{ }}$ to write roots.

- $\sqrt{9} = 3$ gives $\sqrt{9} = 3$
- $\sqrt[3]{9-1} = 2$ gives $\sqrt[3]{9-1} = 2$

Use $\frac{\text{ }}{\text{ }}$ for fractions.

- $\frac{1}{2} = \frac{2}{4}$ gives $\frac{1}{2} = \frac{2}{4}$
- $\frac{1+\sqrt{5}}{2}$ gives $\frac{1+\sqrt{5}}{2}$
Use \( \sqrt{} \) to write roots.
- \( \sqrt{9}=3 \) gives \( \sqrt{9}=3 \)
- \( \sqrt[3]{9-1}=2 \) gives \( \sqrt[3]{9-1}=2 \)

Use \( \frac{}{} \) for fractions.
- \( \frac{1}{2} = \frac{2}{4} \) gives \( \frac{1}{2} = \frac{2}{4} \)
- \( \frac{1+\sqrt{5}}{2} \) gives \( \frac{1+\sqrt{5}}{2} \)

Note Spaces are ignored in math mode.
Mathematical symbols and fonts are provided by specific commands.
Mathematical symbols and fonts are provided by specific commands.

\[
|x-a| \leq \delta \implies |f(x)-f(a)| \leq \varepsilon
\]

\[f : \mathbb{R} \setminus \{0\} \to \mathbb{R} \quad x \mapsto \log(x^2)\]
Mathematical symbols and fonts are provided by specific commands.

\[ |x-a| \leq \delta \implies |f(x)-f(a)| \leq \varepsilon \]

For all $a \in \mathcal{A}$, there exists $u \in \mathfrak{U}$ such that $u+a \not\in \mathbb{Z}$.

For all $a \in A$, there exists $u \in \mathcal{U}$ such that $u + a \not\in \mathbb{Z}$. 
Mathematical symbols and fonts are provided by specific commands.

\[ |x-a| \leq \delta \implies |f(x)-f(a)| \leq \varepsilon \]

For all $a \in \mathcal{A}$, there exists $u \in \mathfrak{U}$ such that $u+a \not\in \mathbb{Z}$.

For all $a \in \mathcal{A}$, there exists $u \in \mathfrak{U}$ such that $u + a \not\in \mathbb{Z}$.

\[ f : \mathbb{R} \setminus \{0\} \to \mathbb{R} \quad x \mapsto \log(x^2) \]

$f : \mathbb{R} \setminus \{0\} \to \mathbb{R} \quad x \mapsto \log(x^2)$
Structuring a Document

2. Preliminaries

Recall from Section 2 ...

\section{Preliminaries} \label{s:prelims}

Recall from Section \ref{s:prelims} \dots

Top tip

■ Use a non-breaking space \textbackslash{} between a section and its number to avoid the line breaking between the two

■ Other uses of non-breaking spaces: Mr\textbackslash{}Harper and 10\textbackslash{}km

It is easy to automatically create a contents page based on the parts, sections and subsections.
2. Preliminaries

Recall from Section 2 . . .
Structuring a Document

2. Preliminaries

Recall from Section 2...

\section{Preliminaries} \label{s:prelims}

Recall from Section\ref{s:prelims} \ldots

It is easy to automatically create a contents page based on the parts, sections and subsections.
Structuring a Document

2. Preliminaries

Recall from Section 2 ...

\section{Preliminaries} \label{s:prelims}

Recall from Section~\ref{s:prelims} \dots

\Top tip

- Use a non-breaking space ~ between a section and its number to avoid the line breaking between the two
Structuring a Document

2. Preliminaries

Recall from Section 2 ...

\section{Preliminaries} \label{s:prelims}

Recall from Section \ref{s:prelims} \dots

Top tip

- Use a non-breaking space ~ between a section and its number to avoid the line breaking between the two
- Other uses of non-breaking spaces: Mr~Harper and 10~km
2. Preliminaries

Recall from Section 2 ...

\section{Preliminaries} \label{s:prelims}

Recall from Section \ref{s:prelims} \dots

Top tip

- Use a non-breaking space ~ between a section and its number to avoid the line breaking between the two
- Other uses of non-breaking spaces: Mr~Harper and 10~km

It is easy to automatically create a contents page based on the parts, sections and subsections.
Citing

At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}

References


Markers

■ To refer to this write \cite{ref:Wilson09} which gives [1] ■

\cite{Theorem2.4} gives [Theorem 2.4, 1]
Reference list At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}
Citing

Reference list At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}
Citing

Reference list At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}

References

Citing

Reference list At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}

References

Markers
- To refer to this write \cite{ref:Wilson09} which gives [1]
Citing

Reference list At the end of the document:

\begin{thebibliography}{99}
\bibitem{ref:Wilson09}
\end{thebibliography}

References


Markers

- To refer to this write \cite{ref:Wilson09} which gives [1]
- \cite[Theorem 2.4]{ref:Wilson09} gives [Theorem 2.4, 1]
This is the tip of the iceberg!
This is the tip of the iceberg!

The \texttt{bibtex} package provides a unified and automated means of producing and formatting the citations and reference list.
This is the tip of the iceberg!

The `bibtex` package provides a unified and automated means of producing and formatting the citations and reference list.

The `geometry` packages allows you to change the page formatting (e.g. margins, page size, page orientation).
This is the tip of the iceberg!

The \texttt{bibtex} package provides a unified and automated means of producing and formatting the citations and reference list.

The \texttt{geometry} packages allows you to change the page formatting (e.g. margins, page size, page orientation).

The \texttt{graphicx} package allows you to include images in your document with the \texttt{\includegraphics} command.
This is the tip of the iceberg!

The `bibtex` package provides a unified and automated means of producing and formatting the citations and reference list.

The `geometry` packages allows you to change the page formatting (e.g. margins, page size, page orientation).

The `graphicx` package allows you to include images in your document with the `\includegraphics` command.

The `booktabs` package allows you to produce professional looking tables.
This is the tip of the iceberg!

The \texttt{bibtex} package provides a unified and automated means of producing and formatting the citations and reference list.

The \texttt{geometry} packages allows you to change the page formatting (e.g. margins, page size, page orientation).

The \texttt{graphicx} package allows you to include images in your document with the \texttt{\includegraphics} command.

The \texttt{booktabs} package allows you to produce professional looking tables.

The \texttt{BEAMER} class allows you to make presentation slides in \LaTeX.
This is the tip of the iceberg!

The \texttt{biblatex} package provides a unified and automated means of producing and formatting the citations and reference list.

The \texttt{geometry} package allows you to change the page formatting (e.g. margins, page size, page orientation).

The \texttt{graphicx} package allows you to include images in your document with the \texttt{\includegraphics} command.

The \texttt{booktabs} package allows you to produce professional looking tables.

The \texttt{BEAMER} class allows you to make presentation slides in \LaTeX.

\texttt{TikZ} allows you to create a huge variety of mathematical images.
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website: seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- LATEX wikibook
- Detexify app
- Manual: The Beamer class
- Manual: The TikZ and PGF Packages

Just Google whatever question you have! There are many good answers on StackExchange.
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

Just Google whatever question you have! There are many good answers on StackExchange.
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- LATEX wikibook
- Detexify app
- Manual: The Beamer class
- Manual: The Ti\textit{k}Z and PGF Packages
- Just Google whatever question you have!
- There are many good answers on StackExchange
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- \LaTeX wikibook

Just Google whatever question you have! There are many good answers on StackExchange.
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- \LaTeX wikibook
- Detexify app
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- \LaTeX{} wikibook
- Detexify app
- Manual: The BEAMER class
- Manual: The TikZ and PGF Packages

Just Google whatever question you have!

There are many good answers on StackExchange
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

```
seis.bris.ac.uk/~sh15083/teaching
```

The following are useful resources:

- \LaTeX wikibook
- Detexify app
- Manual: The \texttt{BEAMER} class
- Manual: The \texttt{TikZ} and PGF Packages

Just Google whatever question you have!
Where should I look for help?

These slides and an accompanying guide (with the associated .tex file) will be on Blackboard and my website:

seis.bris.ac.uk/~sh15083/teaching

The following are useful resources:

- \LaTeX\ wiki book
- Detexify app
- Manual: The BEAMER class
- Manual: The Ti\textit{k}Z and PGF Packages

Just Google whatever question you have! There are many good answers on StackExchange