Theorems

- **Theorem** theorem:

\begin{theorem}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{theorem}

**Theorem 1** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Corollary** theorem:

\begin{corollary}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{corollary}

**Corollary 2** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Lemma** theorem:

\begin{lemma}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{lemma}

**Lemma 3** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Observation** theorem:

\begin{observation}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{observation}

**Observation 4** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Proposition** theorem:

\begin{proposition}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{proposition}

**Proposition 5** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Definition** theorem:

\begin{definition}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{definition}

**Definition 6** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Claim** theorem:

\begin{claim}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{claim}

**Claim 7** Some stuff. These mostly differ in the labels that begin each.
Note the line, paragraph breaks.

- **Fact** theorem:

\begin{fact}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{fact}
Fact 8 Some stuff. These mostly differ in the labels that begin each.
   Note the line, paragraph breaks.

• assumption theorem:

\begin{assumption}
Some stuff. These mostly differ in the labels that begin each.

Note the line, paragraph breaks.
\end{assumption}

Assumption 9 Some stuff. These mostly differ in the labels that begin each.
   Note the line, paragraph breaks.
Commands

- **\texttt{qed}** command:
  \texttt{\textbackslash qed}

- **\texttt{dis}** command:
  \texttt{\$\textbackslash dis\$}

- **\texttt{per}** command:
  \texttt{\$\textbackslash per\$}

- **\texttt{area}** command:
  \texttt{\$\textbackslash area\$}

- **\texttt{cw}** command:
  \texttt{\$\textbackslash cw\$}

- **\texttt{ccw}** command:
  \texttt{\$\textbackslash ccw\$}

- **\texttt{DIST}** command:
  \texttt{\$\textbackslash DIST\$}

- **\texttt{OP}** command:
  \texttt{\$\textbackslash OP\$}

- **\texttt{OPprime}** command:
  \texttt{\$\textbackslash OPprime\$}

- **\texttt{i hat}** command:
  \texttt{\$\textbackslash i hat\$}

- **\texttt{j hat}** command:
  \texttt{\$\textbackslash j hat\$}

- **\texttt{big O}** command:
  \texttt{\$\textbackslash bigO\$}

- **\texttt{half}** command:
  \texttt{\$\textbackslash half\$}

- **\texttt{abs}** command:
  \texttt{\$\textbackslash abs\{foo\}\$}

- **\texttt{Pr}** command:
  \texttt{\$\textbackslash Pr\{foo\}\$}

- **\texttt{Exp}** command:
  \texttt{\$\textbackslash Exp\{foo\}\$}

- **\texttt{set}** command:
  \texttt{\$\textbackslash set\{foo\}\$}

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Pseudocode Commands

- **FOR** command:

  \FOR
  \$\FOR$
  for
  for

- **TO** command:

  \TO
  \$\TO$
  to
to
to

- **DO** command:

  \DO
  \$\DO$
dodod

- **WHILE** command:

  \WHILE
  \$\WHILE$
  while
  while

- **AND** command:

  \AND
  \$\AND$
  and
  and

- **IF** command:

  \IF
  \$\IF$
  if
  if

- **THEN** command:
Layout Commands

- `mathify` command:

  Enforces math mode (temporarily, if necessary).

  \[ \mathify{foo \cdots x^2} \]

  \[ $\mathify{foo \cdots x^2}$ \]

  \[ foo \cdot x^2 \]

  \[ foo \cdot x^2 \]
Environments

- **proof** environment:
  \begin{proof}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proof}

  Note that most environments do not set the math mode.

- **proof-sketch** environment:
  \begin{proof-sketch}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proof-sketch}

  Note that most environments do not set the math mode.

- **proof-idea** environment:
  \begin{proof-idea}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proof-idea}

  Note that most environments do not set the math mode.

- **proof-of-lemma** environment:
  \begin{proof-of-lemma}\{foo\}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proof-of-lemma}

  Note that most environments do not set the math mode.

**Proof of Lemma foo** This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.

Note that most environments do not set the math mode.

- **proof-attempt** environment:
  \begin{proof-attempt}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proof-attempt}

  Note that most environments do not set the math mode.

**Proof Attempt** This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.

Note that most environments do not set the math mode.

- **proof** environment:
  \begin{proofof}\{foo\}
  This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.
  \end{proofof}

  Note that most environments do not set the math mode.

**Proof of foo:** This is text to demonstrate the flow and formatting. Using these makes the LaTeX more readable.

Note that most environments do not set the math mode.
• **remark** environment:

\begin{remark}
This is text to demonstrate the flow and formatting. Using these makes the latex more readable.

Note that most environments do \texttt{\textbackslash emph{not}} set the math mode.
\end{remark}

**Remark**  This is text to demonstrate the flow and formatting. Using these makes the latex more readable.

Note that most environments do \texttt{not} set the math mode.