LaTeX Seminar

Practice Session #1

1. Open the file `Example1.tex` in Texmaker.
2. Compile it.
3. Open the pdf file.

Practice Session #2

1. Continuing with `Example1.tex`, on the line after `Hello, World!`, add the mathematical expression

   ```
   $x\mapsto\{y\in\mathbb{R}\mid y\leq x\}$
   ```

   and recompile.
2. Add `\usepackage{amssymb}` on the line before `\begin{document}` and recompile.
3. Add `[12pt]` between `\documentclass` and `{article}` and recompile.

Practice Session #3

1. Open `Example2.tex` and compile it.
2. After each division command (e.g., `\section`), add an asterisk (e.g., `\section*`) and recompile.

Practice Session #4

1. Continuing with `Example2.tex`, add a table of contents and recompile.
2. Remove the asterisks and recompile.
3. Change the table-of-contents depth to 1 and recompile.

Practice Session #5

1. Continuing with `Example2.tex`, change the following text faces and then recompile.

   - Put "Little Red Riding Hood" in boldface.
   - Put "Grandma" in small caps.
   - Put "Big Bad Wolf" in italics.

2. Add a footnote to Little Red Riding Hood and recompile.

Practice Session #6

1. Open `Example3.tex` and compile it.

2. Change `itemize` to `description` (all 6 occurrences in first list) and recompile.

3. Change them back to `itemize`.

4. Change `description` to `itemize` (all 6 occurrences in third list) and recompile.

5. In the first list, under `Big teeth`, add

   ```
   \begin{itemize}
       \item Eye teeth
       \item Molars
   \end{itemize}
   ```

   and recompile.

6. Under `Molars`, add

   ```
   \begin{itemize}
       \item Left molar
       \item Right molar
   \end{itemize}
   ```

   and recompile.

Practice Session #7

1. Open `Example4.tex` and compile it.
2. In the `tabular` environment, note
   - The displayed table.
   - The displayed graphic.
   - The inline table and graphic.
3. In the `table` and `figure` environments, note
   - The placement of the table and the figure.
   - The references to the table and the figure and their page numbers.
   - If the references are question marks (??), then recompile.
4. In the `\begin{table}[h]` and `\begin{figure}[h]` statements, change `[h]` to `[b]` and recompile.
5. Change `[b]` to `[t]` and recompile.

Practice Session #8

1. Open `Example5.tex` and note that most of the sections are commented out. The first section is uncommented.
2. Compile `Example5.tex`.
3. Comment out the first section and uncomment the second section, then recompile.
4. Place `\left` in front of each `(` and `[` and place `\right` in front of each `)` and `]` and recompile. Note the effect.
5. Enclose each expression within `\displaystyle{}` and recompile.
6. Comment out the second section and uncomment the third section, then recompile.
7. Replace `\left(` with `\left[` and `\right(` with `\right[` and recompile.

8. Replace `\left[` with `\left{` and `\right]` with `\right}` and recompile.
9. Replace `\right}` with `\right.` and recompile.
10. Comment out the third section and uncomment the final section, then recompile.
11. In the last section (Limits and Summations), replace each `$` with `$$` and recompile.

Practice Session #9

1. Open `Example6.tex` and compile it.
2. Use `\newtheorem` to create a `corollary` environment.
3. Add the following corollary to the last theorem.

   Corollary 1. *For all* $n \neq -1$,

$$\int_0^1 x^n \, dx = \frac{1}{n+1}.$$