A LaTeXTEMPLATE

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Abstract. To get you started on your first professional document.Hello.

1. Softwares

To create a professional-looking document (without Equation Editor in Word) in .pdf from LaTeX, you might consider the following softwares.

- On Windows platform, you will need to install
  (1) MiKTeX: `http://miktex.org/download`
  (2) Ghostscript: `http://www.ghostscript.com/download/gsdnld.html`
  (3) GSView: `http://pages.cs.wisc.edu/~ghost/gsview/index.htm`
  (4) Adobe Reader: `http://get.adobe.com/reader/enterprise/`
  and one of the following:
  - (Free Download) Texmaker `http://www.xm1math.net/texmaker/`
  - (30-day Free Trial) WinEdt: `http://www.winedt.com/`
  - (Free Download) TeXnicCenter: `http://www.texniccenter.org/`
  - Lyx: `http://www.lyx.org/`
- Macintosh platform: TeXShop: `http://www.uoregon.edu/~koch/texshop/`

2. Introduction

2.1. Enumeration.

- There are generally two kinds of enumeration: numbers or bullets.
- Or you can manually change it to anything you want.
  :) Smile.
  ◇ A special character.

2.2. Mathematical Equations.

(1) Inline mathematical equation: $\frac{p}{q} = \sqrt{2}$.

(2) Inline display style: $\sum_{i=1}^{n} \frac{1}{2^i}$.

(3) Mathematical environment.

$$X = \begin{bmatrix} 1 & 0 & \dots & 0 \\ 0 & 1 & \cdots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \cdots & 1 \end{bmatrix}.$$

or, e.g., Equation (2.1).

$$P \vee Q \Rightarrow R \quad \Leftrightarrow \quad \sim (P \vee Q) \vee R \tag{2.1}$$
$$\Leftrightarrow \quad (\sim P \wedge \sim Q) \vee R \tag{2.2}$$
$$\Leftrightarrow \quad R \vee (\sim P \wedge \sim Q) \tag{2.3}$$
$$\Leftrightarrow \quad (R \vee \sim P) \wedge (R \vee \sim Q) \tag{2.4}$$
$$\Leftrightarrow \quad (P \Rightarrow R) \wedge (Q \Rightarrow R) \tag{2.5}$$

Can you tell the difference of this one and the one below?

$$\begin{aligned} P \vee Q \Rightarrow R \quad &\Leftrightarrow \quad \sim (P \vee Q) \vee R \\ &\Leftrightarrow \quad (\sim P \wedge \sim Q) \vee R \\ &\Leftrightarrow \quad R \vee (\sim P \wedge \sim Q) \\ &\Leftrightarrow \quad (R \vee \sim P) \wedge (R \vee \sim Q) \\ &\Leftrightarrow \quad (P \Rightarrow R) \wedge (Q \Rightarrow R) \end{aligned}$$

2.3. **Table.** Tabular environment is probably one of the most useful tool in LaTeX.

P	Q	$P \vee Q$	$P \wedge Q$	$\sim P$
T	T	T	T	F
T	F	T	F	
F	T	T	F	T
F	F	F	F	

TABLE 1. Always remember to add table caption for your readers!

2.4. **Graphics.** Make sure you specify the path to find the image. pdfLaTeX can read common image formats such as jpeg and pdf; however, LaTeX can only understand .ps, .eps, and alike. And that's why you need to install ghostview for viewing .ps and .eps files.

Some common ways to create bitmap images are to use Microsoft products, such as drawing tools in Word and PowerPoint, and xfig. Of course, if you have fancy softwares like Adobe Illustrator, then you are much more flexible in terms of drawing.

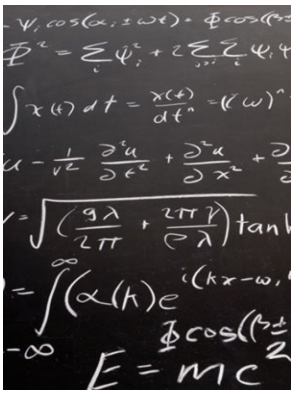

FIGURE 1. How mathematical.

2.5. **References.**

(1) To include a reference in your document, use the command

```
\cite{CH_07}
```

and it will look like this: [1]. To reference anything else in the document, use the commands

```
\ref{Eq:equationName}
\ref{fig:figureName}
\ref{S:sectionName}
\ref{ta:tableName}
...
```

(2) To compile your document with appropriate references: LaTeX once, bibTeX once, LaTeX twice.
(3) If you need to find something, best resource is Mr. Google. Else, a good reference book is *The LaTeX Companion*, 2nd edition, by **Frank Mittelbach** and **Michel Goossens**, published by Addison Wesley.

REFERENCES

[1] Nello Cristianini and Matthew W. Hahn. *Introduction to Computational Genomics: A case studies approach*. Cambridge University Press, 2007.

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