### LaTeX Tutorial

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## Chapter 1

## Chapter Name

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### 1.1 A Section

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . If you read this text, you will get no information  $E = mc^2$ . Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ . This text should contain all letters of the alphabet and it should be written in of the original language.  $\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$ . There is no need for special content, but the length of words should match the language.  $a\sqrt[n]{b} = \sqrt[n]{a^nb}$ . Hello, here is some text without a meaning.  $d\Omega = \sin \vartheta d\vartheta d\varphi$ . This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . This text should contain all letters of

#### CHAPTER 1. CHAPTER NAME

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- First item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list
- 1. First item in a list
- 2. Second item in a list
- 3. Third item in a list
- 4. Fourth item in a list
- 5. Fifth item in a list

First item in a list

Second item in a list

Third item in a list

Fourth item in a list

Fifth item in a list

Hello, here is some text without a meaning.  $\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$ . This text should show what a printed text will look like at this place.  $a\sqrt[n]{b} = \sqrt[n]{a^nb}$ . If you read this text, you will get no information.  $d\Omega = \sin\vartheta d\vartheta d\varphi$ . Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ .



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#### Wrap Image

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place.  $\sin^2(\alpha) + \cos^2(\beta) = 1$ . If you read this text, you will get no information  $E = mc^2$ . Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at



Figure 1.1: Pretty Picture

all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look.  $\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$ . This text should contain all letters of the alphabet and it should be written in of the original language.  $\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$ . There is no need for special content, but the length of words should match the language.  $a\sqrt[n]{b} = \sqrt[n]{a^nb}$ .

### Spacing

This is our first LATEX document. It is quite amazing. The 1st line isn't indented.

The second line is indented. If we use multiple spaces it won't matter

Special characters can be escaped % \$ & \_ \

#### 1.2 Smoothie Recipe

- 1 Cup Spinach
- 1 Cup Frozen Blueberries
- 2 Bananas
- 1.5 Cups Almond Milk
- Powders
  - 1 Tbs PB2
  - 1 Tsp Ambla Powder

• 6 Dates

#### 1.3 Perfect Meal Recipe

 ${f I}$  Add the following and cook for 2 minutes

- 1 tsp Olive Oil
- 1 Cup Onion, diced
- 3 cloves Garlic, minced
- 1 tsp Salt
- 1 Cup chopped Portobello Mushrooms

II Add the following and stir for 2 minutes

- 2 TBs Curry Powder
- 1 tsp Fresh Minced Ginger
- 2 TBs Tomato Paste

III Add the following and simmer for 15 minutes

- 1 cup uncooked Lentils
- 4 cups Vegetable Broth

IV Add the following and simmer for 20 minutes

- 2 cups chopped Carrots
- 4 Cups cubed Yams

V Add the following and cook for 10 minutes

- 2 cups boiled diced Collard Greens
- 1 cup frozen diced Spinach

Philtrum The vertical groove on the median line of the upper lip

Darkle Becoming cloudy or dark

Pogonotrophy Growing and grooming a beard or other facial hair

**Interrobang** A punctuation mark designed for use especially at the end of an exclamatory rhetorical question; usually written as ?!

Customer Name Street City

Derek Banas 123 Main St Pittsburgh

Name Age

First Last

Derek Banas 44

Sally Smith 42
á ê 'o ü à ō ñ ă ấ ě ôo ç n i

Name	Command	Sample Text
emphasize	\emph	abcdefgh
italic	\textit	abcdefgh
slanted	\textbf	abcdefgh
bold	\emph	abcdefgh
small capped	\textsc	ABCDEFGH
medium	\textmd	abcdefgh
upright	\textup	abcdefgh
roman family	\textrm	abcdefgh
sans serif	\textsf	abcdefgh
typewriter	\texttt	abcdefgh
combo	<pre>\textup{}</pre>	abcdefgh

Table 1.1: Ways to emphasize text

### 1.4 Type Emphasis & Sizing

If you want font changes to continue *italic*, *slanted*, SMALL CAPS, upright, back to normal

Get Smaller: normal, small, footnote, script, tiny

Get Bigger: large, larger, larger, huge, Hugest

I want to use a big font Back to normal

#### 1.5 Font Families

We can temporarily change a font family, or change it for the rest of the document

"I like long walks, especially when they are taken by people who annoy me." - Fred Allen

#### 1.6 Math Formulas

$$ax^2 + bx + c = 0$$

This  $ax^2 + bx + c = 0$  is the quadratic equation

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Greek letters  $\alpha\beta\gamma\delta\epsilon\zeta\eta\theta\vartheta\iota\kappa\lambda\Lambda\mu\nu\xi\Xi\pi\Pi\rho\rho\sigma\Sigma\tau\upsilon\Upsilon\phi\varphi\Phi\chi\psi\Psi\Omega\omega$ 

Script letters  $\mathcal{A}, \mathcal{B}$ 

Subscript  $t_0$ 

Superscript  $x^2$ 

Vectors  $\vec{a} \cdot \hat{x} = a_x$ 

 $\text{Matrices} \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$ 

Integrals  $\Delta x = \int_{t_0}^{t_1} v(t) dt$ 

Limits  $\lim_{x\to 0} \frac{1}{x} = \infty$ 

Summations  $e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!}$ 

 $\label{eq:operators} \textbf{Operators}\ \arccos, \arcsin, \arctan, \arg, \cos, \cosh, \cot, \coth, \deg, \det, \dim, \exp, \gcd, \\ hom, \inf, \ker, \lim, \lg, \lim\inf, \limsup, \ln, \log, \max, \min, \Pr, \sec, \sin, \sinh, \sup, \tan, \tanh$ 

Relational Operators  $\geq$ ,  $\gg$ ,  $\leq$ ,  $\ll$ ,  $\neq$ 

Binary Operation/Relation Symbols  $\approx, \asymp, \bowtie, \cong, \dashv, \dot{=}, \equiv, \smallfrown, |, \models, \parallel, \perp, \prec, \preceq, \sim, \sim, \sim, \sim, \succ, \succeq, \vdash$ 

#### 1.7 Custom Commands

You can use custom commands: New Think Tank or **New Think Tank**Style to typewriter.

#### 1.8 Text Columns

Get in the middle of me Okay

```
I used to
                Always
                remember
  think I was
                that you're
  indecisive,
  but
         now
                unique.
                Just
                        like
  I'm not too
                everyone.
  sure.
  I always
  wanted to
  be
  somebody,
  but I should
  have been
  more
  specific.
      When I
    was a kid
  my parents
     moved a
     lot, but I
      always
        found
        them.
One advantage of talking to
yourself is that you know at
least somebody's listening.
```

### 1.9 Referencing

The answer you're looking for is inside of you, but it's wrong.<sup>2</sup>

There is a great table on Type Emphasis is in this section 1.4 on page 8 There is a pretty picture in section 1.1 on page 6

How I learned my ABCs [1].

<sup>&</sup>lt;sup>2</sup>author unknown

## **Bibliography**

#### [1] Walter Abish The Alphabetical Africa, 1974

When I was born I was so ugly the doctor slapped my mother - Rodney Dangerfield

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