

Lab 6 Notes

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1 Introduction

L^AT_EX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation.

In Session 6, we will get started with writing a simple document to familiarize ourselves with the basic L^AT_EX working environment. Please check the self-study links, there are some good online tutorials.

Tutor will guide you in creating your first lab notes using L^AT_EX.

2 List

There are two basic types: ordered/numbered list and unordered/bulleted list.

2.1 ordered list

Example 1:

1. milk
2. fruit
3. meat

Note: at least one “item” is needed.

2.2 unordered list

Example 2:

- apple
- banana
- pear

2.3 nested lists

One list can be added into another list as one of its items.

Example 3:

1. milk
2. fruit
 - apple
 - banana

- pear
3. meat

3 Simple Math

There are two basic math modes for type setting math expressions: **inline math** and **display math**.

3.1 inline math

1. $f(x) = \sin(x)$ has three roots on interval $[0, 2\pi]$.
2. $(a + b)^2 = a^2 + 2ab + b^2$
3. $\sqrt{1 - 2x} = 0 \Rightarrow x = \frac{1}{2}$

3.2 display math

1.

$$(a + b)^2 = a^2 + 2ab + b^2$$
2.

$$\sqrt{1 - 2x} = 0 \Rightarrow x = \frac{1}{2}$$

3.3 inline vs. display math

Use inline/display math wisely based on the context. For example:

The root of the quadratic equation $ax^2 + bx + c = 0$ is given by

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

where $\Delta = b^2 - 4ac$ is called the discriminant.