## Latex Example Live

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#### Introduction 1

This looks like computer code

#### Text $\mathbf{2}$

### This sentence is in boldface

italicized maybe in a sentence something

one inside the other

also italicized???

This is an important sentence, maybe a quote or something, and this word is very important. Let's make this sentence longer than one line.

# Large words

#### 3 Math mode

This is an inline formula  $\sum_{i} \frac{i}{22}$ , it appears within the text

This is a displaystyle formula

$$\sum_{\alpha=0}^{2^{10}} \frac{2}{\alpha} 22$$

it appears on its own line

How sqrt works:  $\sqrt[\phi]{25}$ 

$$e^{x} = \left(\sum_{i=0}^{\infty} \frac{x^{i}}{i!}\right) =$$

$$= \left(1 + x + \frac{x^{2}}{2}\right) + \frac{x^{3}}{6} + \cdots$$
(1)

$$\left\{x \in \mathbb{R} \quad \text{such that} \quad \frac{\sin(x)}{x^2} > 0\right\} \mathbb{R}$$

$$\sum_{i}$$

1

The first equation we wrote is (1)

#### 4 **Environments**

#### Lists 4.1

- One item
- Another 2 + 2 = 4

 $\bullet$  a third one

$$\sum_{i=0}^{n}$$

- A sublist:
  - + First subitem
  - + and so on
- Again in the main list
- I One
- II Two
- III Actually three
- IV Three (or not)

## **Tables**

Let's write a table:

This is a table	second column	third column
Things	a	2 + 2 = 4
more things	b	c

$$\begin{pmatrix} \int_0^1 e^x & \frac{2}{25} \\ 0 & 0 \\ 1111 & 234\alpha \end{pmatrix}$$

$$\begin{pmatrix} \int_0^1 e^x & \frac{2}{25} \\ 0 & 0 \\ 1111 & 234\alpha \end{pmatrix}$$

$$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} \xrightarrow{L2 \to L2 + L3} \begin{pmatrix} 1 & 2 \\ 4 & 6 \end{pmatrix}$$

## 5 Last section

In section 4.1 we saw how to write lists

My Theorem 5.1 (Gauss). The equation 2 + x = 4 is true for x = 2.

Proposition 5.2. A less important fact

**Definition 1.** a definition

My Theorem 5.3. Another important fact.

Achtung. It is a common mistake to think that 2 + 2 = 5

 $\binom{4}{5}$ 

 $2 \nmid 10$