An example

Anonymous

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Before we start, here are the correct type-settings of TeX, LaTeX and LaTeX 2_ε (notice the empty string {} or extra space \␣ we had to use; otherwise, we obtain TeXand LaTeX). It is better to use {}, since this allows TeX to adjust spacing as needed to fill in the line.

Contents

1 Fonts & sizes

1.1 Sizes

One can use the normal size, or from ₜᵢₙᵧ to HUGE.

1.2 Fonts

In each size, there are various fonts, e.g.

- document font
- roman
- *italic*
- SMALL CAPS

- *slanted*

- **bold face**

You can also <u>underline</u>, or *emphasize*.

1.2.1   Accents & co.

And you can add accents, or use other symbols: ¶, §, î, ñ, Ä (note that ı and ȷ are the i and j without the dot — so that one can put other accents on them).

2   Mathematical formulas

Mathematical formulas are typed between $ signs. Simple $'s will produce the formula in the text, double $'s (or, preferably in LaTeX, the construction \[. . . \]) will "display" it. For example, $\int_0^\infty \frac{x^2}{x+1} dx$ and

$$\forall x \in \mathbb{R} \Rightarrow x^2 \geq 0.$$

Subscripts are introduced with the underscore _, and have to be enclosed in braces, { and }, if they are more than one character long. The same applies for superscripts, which are introduced with ˆ. **Note:** sub- and superscripts are allowed only in *math mode*.

If you want your formulas numbered (for example as in equation (1) below), you should include them in the *equation* environment. You can add a label, so that you can refer to them in other parts of the text. The same way you can label and refer to any numbered item (e.g., the section 1.2, on page 1).

$$a^2 + b^2 = c^2, a, b, c \in \mathbb{Z} \Leftrightarrow a = m^2 - n^2, b = 2mn, c = m^2 + n^2, m, n \in \mathbb{Z}. \quad (1)$$

One can change the numbering format. For example, the line

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\numberwithin{equation}{section}
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in the preamble will add to the equation labels the section number as well (hence, equation (1) would become (2.1)). Moreover, the numbering of equation will start from 1 in each section.