A Sample LaTeX File

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1   Introduction

This is a sample LaTeX file. You type your content just like this. Nothing tricky at all. If I want an equation like "two plus two equals four" then I just write $2 + 2 = 4$. The dollar signs put you in math mode. You can also give an equation its own line like this:

$$2^2 = 2 + 2 = 4$$

or even

$$\int_a^b f(x)dx = f(b) - f(a)$$

2   Things You Can Do

If you want to give some text special emphasis, use the *emph command*.

To get a new paragraph, just put in a blank line. Notice how the typesetter chose to indent this paragraph, but not the one immediately following the section heading. These stylistic things add a professional touch to your work without any extra thought from you.

You can make a big quote like:

> In the book, men are portrayed as polygons whose social class is directly proportional to the number of sides they have; therefore, triangles, having only three sides, are at the bottom of the social ladder and are considered generally unintelligent, while the Priests are composed of multi-sided polygons whose shapes approximate a circle, which is considered to be the "perfect" shape. On the other hand, the female population is comprised only of lines, who are required by law to sway back and forth and sound a

> "peace-cry" as they walk, because when a line is coming towards an observer in a 2-D world, it appears merely as a point...

without worrying about how to arrange it yourself.

Footnotes are also easy.[1] The footnote numbering is automatic.[2]

One annoying thing: to make an open quotation mark, use " rather than the quotation mark ". Somewhat related: % and # are special characters in LaTeX, so they must be typeset using commands instead of directly in the text.

3 Some Math Tricks

Here are some things you might want to do in math mode.

$$\frac{d}{dx}x^2 = 2x$$

$$a_{n+1} = a_1^n$$

$$\int_0^1 x^2 dx = \frac{1}{3}$$

$$\sum_{k=1}^n k = \frac{n \cdot (n+1)}{2}$$

$$\lim_{x \to 0} \frac{\sin(x)}{x} = 1$$

$$\cos(\sin(\log(1))) = 1$$

Notice that LaTeX takes care of typesetting integrals and fractions differently when they are in display mode:

$$\int_0^1 x^2 dx = \frac{1}{3}$$

versus inline mode $\int_0^1 x^2 dx = \frac{1}{3}$.

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[1] Just use the footnote command.

[2] Of course.