Distributed Proofreaders

Proofreading Guidelines for LaTeX

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LaTeX is a mark-up language with particular strengths for typesetting mathematical works. However, you don't need to know mathematics or LaTeX to proof a {LaTeX} project: *Non-mathematicians are expressly encouraged to work on LaTeX projects in the proofing rounds.*

Though LaTeX formatting differs in every detail from non-LaTeX formatting, most proofing practices are the same: The primary goal is to match the characters in the scan, just as with non-LaTeX projects. Your experience as a LaTeX proofer is likely to be more pleasant if you're familiar with the non-LaTeX proofing guidelines. This document covers only aspects of proofing distinctive to LaTeX.

Most DP proofers do not speak LaTeX, so extensive formatting in the proofing rounds is particularly detrimental. If the text already contains LaTeX formatting, retain it and ask for guidance in the project forum. Non-LaTeX formatting, however, should *always* be removed: "should `<i>`always`</i>` be..." → "should always be..."

Except as noted below, proofread everything you can using normal DP guidelines, and *do not* insert LaTeX code except Greek symbols.

Generalities Mathematics usually scans poorly. In P1, please delete obvious OCR junk, and type in the "ordinary" parts of mathematical expressions and equations: numerals, Roman and Greek letter symbols, and arithmetic signs.

Greek letters Greek letters are obtained by typing in a backslash followed by the name of the letter, spelled out in Roman. Capitalize the name (from `\Alpha` to `\Omega`) for a capital letter.

A α `\alpha`	B β `\beta`	Γ γ `\gamma`	Δ δ `\delta`	E ϵ (ε) `\epsilon`	Z ζ `\zeta`
H η `\eta`	Θ θ (ϑ) `\theta`	I ι `\iota`	K κ $(\varkappa)$ `\kappa`	Λ λ `\lambda`	M μ `\mu`
N ν `\nu`	Ξ ξ `\xi`	O o `\omicron`	Π π (ϖ) `\pi`	P ρ (ϱ) `\rho`	Σ σ (ς^1) `\sigma`
T τ `\tau`	Υ υ `\upsilon`[1]	Φ ϕ (φ) `\phi`	X χ `\chi`	Ψ ψ `\psi`	Ω ω `\omega`

Use a space if necessary to separate the name of a Greek letter from the surrounding expression; πr^2 is proofed `\pi r^{2}`

Seven Greek letters have lowercase variants (in parentheses). In rare cases, a project may use both forms of a letter with different meanings. Should this occur, or if you're unsure, please seek advice in the project thread.

[1] Does not appear in mathematics.

Visual cautions The symbols omega (ω)/variant pi (ϖ) are quite similar-looking. Please ask in the project thread in case of uncertainty.

The Roman letter vee (v) and the Greek letter upsilon (υ), and the Greek letters zeta (ζ) and variant sigma (ς) are quite similar-looking, but as noted, upsilon and variant sigma occur only in Greek text, not as mathematical symbols.

Latin-1 drop-down characters A few mathematical characters in the drop-down menu occur regularly in LaTeX projects: the section symbol (§), degree symbol (°), plus-or-minus sign (±), mid-dot (·), and multiplication sign (×).

Prime accents in math A single-quote character (`'`, a.k.a. close-quote, right-quote, apostrophe) stands for the prime accent. For multiple primes, use that many individual single-quotes: f''' is proofed `f'''`.

Zeros and ones LaTeX projects are particularly prone to scannos involving the letter Oh (O) and the digit zero (0), and between the letters Eye (I), ell (l), and the digit one (1). Please proof using DP Custom Mono or Courier, and keep a close watch for digits that should be letters and *vice versa*.

Dashes and hyphens Proof em-dashes as "`--`" and hyphens, en-dashes, and minus signs as "`-`". (That is, *do not* use the LaTeX commands.) OCR commonly has trouble distinguishing dashes and subtraction signs; watch for minus signs rendered as "`--`".

Subscripts and superscripts As in non-LaTeX projects, use underscore "`_`" and caret "`^`" to denote subscripts and superscripts. e^{x^2+t} is proofed `e^{x^{2}+t}`. Curly braces surround a sub- or superscript, even a single character.

Displayed equations For a "displayed" equation, set on its own line or group of lines, treat the proofed text as a separate paragraph, with a blank line before and after.

Spacing in mathematics Spaces within mathematical expressions are of relatively little importance, but can and should be used to enhance legibility for humans. The snippets

`x = 2 + 4,` `x=2+4,` and `x =2 +4`

will all be displayed as $x = 2+4$, but the first is perhaps easiest to read. (None of the three is "wrong", however.) Use your best judgement, particularly in complex cases; compare the readability of

```
x = $$ \alpha^{2} (a+b)^{2n+1} + \beta^{2} (a-b)^{2n-1}
```

```
x=$$\alpha^{2}(a+b)^{2n+1}+\beta^{2}(a-b)^{2n-1}
```

as alternative proofings of $x = \sqrt{\alpha^2(a+b)^{2n+1} + \beta^2(a-b)^{2n-1}}$. Again, neither text is "wrong", but the first is easier to read and format.

Fractions Use a slash / for fractions, even fractions having a horizontal bar. It's usually best to leave a space on either side of the slash. *Do not* add parentheses to ensure correct mathematical grouping unless they're present in the scan:

$$\frac{a+b}{a-b} = \frac{1+\frac{b}{a}}{1-\frac{b}{a}}$$ might be proofed `a+b / a-b = 1 + b/a / 1 - b/a.`

Proper fractions, such as $2\frac{1}{2}$, are unusual in LaTeX projects, but should be proofed as, e.g. `2 1/2`. That is, use a space rather than inserting a hyphen.

Default rule As a final catch-all rule, replace any other mathematical symbols and expressions with `$$` (two dollar-signs) as a placeholder for the formatters, *even if you know the correct LaTeX code*. For example,

$y_{10} = \sqrt{\alpha^2 + \wp(x)}$ might be proofed `y_{10} = $$ \alpha^{2} + $$ (x)`

Table 1 below contains several more examples.

Finally, *never* use ASCII art in a LaTeX project to represent fractions, square roots, integrals, etc.

Tables For tables, proofread the elements of the header and body, and leave a couple of spaces between columns. Do not use text to duplicate inter-column or inter-row separators; those will be handled semantically by the formatters.

Aligned equations Equations containing aligned constructs can seem intimidating at first, but are not difficult to proof. For example,

$$\left.\begin{aligned} y &= x^2 \\ w &= z^3 \end{aligned}\right\} \text{ for real } x,\ z$$ might be proofed

```
y = x^{2}
w = z^{3} $$ for real x, z
```

In this example, you might recognise that "$y = x^2$" and "$w = z^3$" go together, followed by a large brace and "for real x, z", and proof the elements accordingly, using the catch-all `$$` to represent the large brace.

There's no single "right answer" when proofing complex displays. Your primary goal as a proofer is to ensure the text and basic symbols are accurately proofed.

Of course, anything you can do to make the formatters' work easier is welcome. Generally, try to group related parts of an equation in the proofed text. As you read the equation left-to-right, place successive units left-to-right on one line when possible, and on successive lines otherwise.

In any event, you're not expected to understand mathematics in order to proof it. Please don't get put off trying to interpret the math, and do feel free to ask in the project forum if you're unsure.

Examples

Image:	**Proof as**:
x^{n+1}	`x^{n+1}`
y_n^{10}	`y_{n}^{10}`
$\cos Ax \sin By$	`cos Ax sin By`
$\tan \vartheta$	`tan \theta` or `tan $$`
$a' + b'' = 42$	`a' + b'' = 42`
$\left(\frac{1.234 \times 10^4 \times 678}{9023}\right)$	`( 1.234 × 10^{4} × 678 / 9023 )`
$\sqrt{x^2 + y^2}$	`$$ x^{2} + y^{2}`
$\sin^{-1} A = \frac{\pi}{2}$	`sin^{-1} A = \pi/ 2`
$\frac{a+b}{c+d}$	`a + b / c + d`
$e^{a^2+ab+b^2}$	`e^{a^{2} + ab + b^{2}}`
$\int_a^b f(x)\,dx$	`$$_{a}^{b} f(x) dx` or `$$ f(x) dx`
$\sum_{n=1}^{\infty} \frac{1}{n}$	`$$ 1 / n` (Do not use `\Sigma` for sums.)
$\frac{\frac{dy}{dx}}{\frac{dz}{dy}}$	`dy/dx / dz/dy` or `dy/dx dz/dy`
$\frac{\frac{\partial y}{\partial x}}{\frac{\partial z}{\partial y}}$	`dd y/dd x / dd z/dd y` or `dd y/dd x dd z/dd y`

Table 1: LaTeX proofing examples.