ERRATA TO *The Joy of TeX* PRIOR TO $\mathcal{A}\mathcal{M}\mathcal{S}$-TeX 2.0

This list of corrections to *The Joy of TeX*, 1986 edition, includes all known corrections that preceded the release of $\mathcal{A}\mathcal{M}\mathcal{S}$-TeX Version 2.0. Reprints with corrections may already incorporate some or all of these changes.

The printing date of each copy of *The Joy of TeX* is identified on the reverse of the title page. The list below will permit you to determine which corrections have not already been incorporated in your copy of *The Joy of TeX*.

First printing, 1986	all changes
Second printing with corrections, 1986	changes after 11/25/86
Third printing with corrections, 1987	changes after 5/12/87

For differences between earlier versions of $\mathcal{A}\mathcal{M}\mathcal{S}$-TeX and Version 2.0, see the **User's Guide to $\mathcal{A}\mathcal{M}\mathcal{S}$-TeX 2.0**. The second edition of *The Joy of TeX*, 1990, contains all changes in this list as well as new material for $\mathcal{A}\mathcal{M}\mathcal{S}$-TeX 2.0.

(This errata list was last updated 15 October 89.)

Page 12, line 12 (11/11/86)

What output is produced by `\$\␣\␣1.00` and by `\$␣\␣1.00`?

Page 22, line 28 (11/24/86)

will be some surprises in it—so you should go pick it up as soon as possible.

Page 26, line 9 (10/15/89)

uptight when you encounter an error message, because TeX can always be coaxed

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Page 39, line 4 (10/15/89)

words as evenly as possible. But everyone knows that such bland perfection isn't

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Page 39, line −4 (12/12/89)

allowed here also, to accommodate threesomes, foursomes, and even more perverse

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Page 44, line −10 (12/12/89)

their own papers might prefer to leave these details to someone else, and even

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Page 81, line 13 (10/25/89)

But don't use `\,` before an expression like $\dfrac{dy}{dx}$ or before the dx in dy/dx.

Page 88, line −5 (5/11/87)

We derive the quadratic formula by "completing the square":

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Page 90, line −4 (10/15/89)

to the old style that they may be discomforted by the "improvements".

Page 99, lines 15–16 (8/6/86)

`$\varinjlim$`	$\varinjlim$
`$\varprojlim$`	$\varprojlim$

Page 108, line 11 (11/11/86)

```
&=(a+b)(a+b)^n=(a+b)
```

Page 109, line 6 (12/12/89)

when tags are set on the right. What input do you think you should use?

Page 109, line −14 (10/15/89)

so that the `=\bigl[` is aligned with the invisible `\qquad`. Notice, again, that such

Page 113, line 1 (4/10/86)

And there's `\bmatrix...\endbmatrix` to get brackets `\left[...\right]` around

Page 127, line 11 (7/13/87)

If you're an experienced mathematical typist you've probably already begun to

Page 129, lines 14–15 (10/15/89)

with things like $(x_1, \dots, x_m)$, $(y_1, \dots, y_{n+1})$ as well. Explain how to define `\vector` so that we can type these as `$\vector xm$` and `$\vector y{n+1}$`.

Page 129, last 3 lines (10/15/89)

In Exercise 19.20 we defined `\vector` so that `$\vector xn$` produces $(x_1, \dots, x_n)$, etc. But perhaps you don't like this, perhaps you'd prefer to type `$\vector nx$`, with the '`n`' first, and the '`x`' second. How can you arrange this?

Page 131, lines 10–11 (10/15/89)

How would you `\define` the control sequence `\vector` so that you type `$\vector x,n.$` to get $(x_1, \dots, x_n)$, and `$\vector y,m+1.$` to get $(y_1, \dots, y_{m+1})$, etc.

Page 144, line 16 (10/15/89)

This command is "global"—it affects everything that follows, even if it is in-

Page 162, line −6 (5/11/87)

if you typed `\footnote""{...}` then you would get no marker at all, just a note

Page 171, line −7 (10/15/89)

too much, and only `\linebreak` will force TEX to overcome its reluctance.

Page 176, line 4	(12/12/89)

about it, and an `&` is tolerated only in special situations. So you should remember

Page 179, line 4	(10/15/89)

change its position on the $8\frac{1}{2}$ by 11 sheet of paper. Typing

Page 180, lines 5–6	(10/15/89)

```
   &=f'(x) = \frac1{2\sqrt x}\qquad
\foldedtext\foldedwidth{2in}{for some $x$ in $(k, k+1)$,
```

Page 181, line −4	(10/15/89)

should be included at the end of that displayed formula.

Page 182, line −2	(12/12/89)

argument" feature of `\roster` (again compare with **footnote**). If you type

Page 186, line 13	(10/15/89)

commands are "global"—they affect everything that follows even if used in a group

Page 189, line 21	(12/12/89)

will first be divided into lines of a certain length (3 inches less than the width

Page 195, lines 4, 11	(7/13/87)

Change "In addition to" to "First we have".

Page 195, line −1	(12/12/89)

```
... in a bibliography''.
```

Page 202, line −6	(12/12/89)

If '`etc.`' were typed instead of '`etc\.`' there would be a larger space after the

Page 208, line 12	(12/12/89)

it does in ordinary text.

Page 210, line 4	(12/12/89)

you'll get the two equations $a + b = c$ and $A + B = C$ displayed separately.

Page 212, line 6	(12/12/89)

If you press ⟨carriage-return⟩, TEX will continue merrily, and you will get a^{bc}

Page 218, line −6	(7/13/87)

Of course, you weren't supposed to anticipate such after-the-fact corrections.

Page 222, answer to **14.11**, line 1 (10/15/89)

```
We derive the quadratic formula by
```

Page 229, answer to **15.19**, lines 2–3 (10/15/89)

`$\operatorname{\text{\sl SO}}(n)$`	$\mathit{SO}(n)$
`$\operatorname{\text{\bf SO}}(n)$`	$\mathbf{SO}(n)$

Page 230, answer to **16.3**, lines 6–9 (10/25/89)

to suppress any extra space that TEX might put in. (Actually, `...\tag{$**$}$$` happens to work correctly, but `...\tag{$***$}$$` would give the tag $(* * *)$; rather than worrying about why this happens, just type `...\tag{${*}{*}$}$$` and `...\tag{${*}{*}{*}$}$$` to be on the safe side.)

Page 230, answer to **16.4**, line 3 (7/13/87)

```
Q^l&=Q_1\biggl\{\sum_k(-1)^k(PQ_1-I)^k\biggr\}
```

Page 230, answer to **16.4**, line 6 (10/25/89)

```
    Q_1\tag 1{${}_r$}
```

Page 231, answer to **16.6** (10/25/89)

Line 2:

```
\align \alpha_4&=\sqrt{\dfrac12}\\
```

Line 6:

```
\text{etc.}
```

Page 233, answer to **17.4**, line 6 (5/13/86)

```
        \dots, $b_{3k}$.}\endmultline
```

Page 234, answer to **18.4** (5/13/86)

Line 6:

```
\pmatrix \format\r&\quad\r\\
```

Line 10:

```
=\pmatrix \format\r&\quad\r\\
```

Page 239, answer to **19.13** (10/15/89)

```
\define\vector#1{(#1_1,\dots,#1_n)}
```

and then use `$\vector x` to get $(x_1, \dots, x_n)$ and `$\vector y$` to get $(y_1, \dots, y_n)$, etc.

Page 240, answer to **19.14** (10/15/89)

`$\vector\alpha$` and `$\vector{x'}$`.

Page 240, answer to **19.15** (10/15/89)

19.15. You can get $(x'_1, \ldots, x'_n)$ by typing `$\vector{{x'}}$`; now the argument is `{x'}` and `{x'}_1` gives x'_1, etc. On the other hand, you can't get the formula $(x_1{}', \ldots, x_n{}')$ using `\vector`—you'd just have to type it out in full.

Page 240, answer to **19.20** (10/15/89)

```
\define\vector#1#2{(#1_1,\dots,#1_{#2})}
```

Page 242, answer to **19.23** (10/15/89)

```
\define\vector#1#2{(#2_1,\dots,#2_{#1})}
```

Although `#1` and `#2` must appear in that order after the `\define\vector`, they can appear in any order within the definition itself.

Page 242, answer to **19.24** (10/15/89)

```
\define\vector#1,#2.{(#1_1,\dots,#1_{#2})}
```

Page 242, answer to **19.27**, line 1 (7/13/87)

19.27. This is a perfectly acceptable `\define`, but you are *not* defining a new

Page 251, line 1 (10/25/89)

is supplied as a synonym for `\thickspace`. In `plain`, the thick space `\;` can

Page 252, line 6 (11/11/86)

```
$f''^2$
```

Page 261, after line 12 (6/22/87)

Add $\eqsim$ `\eqsim`

Page 261, line 15 (6/22/87)

Change $\ncong$ `\napprox` to $\ncong$ `\ncong`

Page 262, line 15 (11/14/86)

Change ð `\thorn` to ð `\eth`

Page 264, line 1 (11/11/86)

Appendix G: {TEX Users}

Page 265, line 6 (11/11/86)

you might want to look back at Appendix G. Perhaps someone in TUG has

Page 275, column 1 (11/14/86)

Add entry

`\eth` (ð), 262

Page 279, column 1	(12/12/89)

`\lesssim` ($\lesssim$), 260

Page 281, column 1	(6/22/86)

Remove entry for `\napprox`

Add entry

`\ncong` ($\ncong$), 261

Page 284, column 1	(12/12/89)

`\Psi` (Ψ), 255

Page 288, column 2	(11/14/86)

Delete entry for `\thorn`