

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

This list of corrections to *The Joy of T_EX*, 1986 edition, includes all known corrections that preceded the release of $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX 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 T_EX* 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 T_EX*.

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

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

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

What output is produced by $\backslash\$ \backslash _ _ 1.00$ and by $\backslash\$ _ _ 1.00$?

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)

upright when you encounter an error message, because T_EX can always be coaxed

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

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

Page 39, line -4 (12/12/89)

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

Page 44, line -10 (12/12/89)

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

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

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

Page 88, line -5 (5/11/87)

We derive the quadratic formula by “completing the square”:

Typeset by $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX

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 `\qqquad`. Notice, again, that such

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

And there’s `\bmatrix\dots\endbmatrix` to get brackets `\left[\dots\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 `$$\vector xn$` and `$$\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 T_EX 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) = \frac{1}{2}\sqrt{x}\quad
\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>`, T_EX 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)` $SO(n)$
`\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 T_EX 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^1&=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{\dfrac{12}}{\}}`

Line 6:

`\text{etc.}`

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

`\dots, \mathbf{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)

$$\backslash\text{define}\backslash\text{vector}\#1\{(\#1_1,\backslash\text{dots},\#1_n)\}$$

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

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

$$\backslash\text{vector}\backslash\alpha\text{ and }\backslash\text{vector}\{x'\}$$

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

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

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

$$\backslash\text{define}\backslash\text{vector}\#1\#2\{(\#1_1,\backslash\text{dots},\#1_{\#2})\}$$

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

$$\backslash\text{define}\backslash\text{vector}\#1\#2\{(\#2_1,\backslash\text{dots},\#2_{\#1})\}$$

Although $\#1$ and $\#2$ must appear in that order after the $\backslash\text{define}\backslash\text{vector}$, they can appear in any order within the definition itself.

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

$$\backslash\text{define}\backslash\text{vector}\#1,\#2.\{(\#1_1,\backslash\text{dots},\#1_{\#2})\}$$

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

19.27. This is a perfectly acceptable $\backslash\text{define}$, but you are *not* defining a new

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

is supplied as a synonym for $\backslash\text{thickspace}$. In `plain`, the thick space $\backslash;$ can

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

$$\backslash\text{f}'\text{'}\wedge 2$$

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

Add \approx $\backslash\text{eqsim}$

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

Change $\not\approx$ $\backslash\text{napprox}$ to $\not\cong$ $\backslash\text{ncong}$

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

Change \eth $\backslash\text{thorn}$ to \eth $\backslash\text{eth}$

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

Appendix G: {T_EX 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` (\eth), 262

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

`\lessim` (\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`