

# The `texvc` package\*

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## Abstract

This package provides all<sup>1</sup> LaTeX command available in MediaWiki. This includes several packages like `amsmath`, and adds some specific commands such as `\Reals`.

## 1 Provided Macros

### 1.1 Arrows

The first group of MediaWiki custom command (`other_delimiters2`) defines short hand notations for some arrows.

<code>\darr</code>	Short hand notation for arrow $\downarrow$ .
<code>\dArr</code>	Short hand notation for arrow $\Downarrow$ .
<code>\Darr</code>	Short hand notation for arrow $\Downarrow$ .
<code>\lang</code>	Short hand notation for arrow $\langle$ .
<code>\rang</code>	Short hand notation for arrow $\rangle$ .
<code>\uarr</code>	Short hand notation for arrow $\uparrow$ .
<code>\uArr</code>	Short hand notation for arrow $\Uparrow$ .
<code>\Uarr</code>	Short hand notation for arrow $\Uparrow$ .

### 1.2 Literals

The second group of MediaWiki custom commands (`other_litereals3`) defines short hand notations for some literals.

<code>\C</code>	Short hand notation for literal $\mathbb{C}$ . <i>This command is deprecated.</i>
<code>\H</code>	Short hand notation for literal $\mathbb{H}$ . <i>This command is deprecated.</i>
<code>\N</code>	Short hand notation for literal $\mathbb{N}$ .
<code>\Q</code>	Short hand notation for literal $\mathbb{Q}$ .
<code>\R</code>	Short hand notation for literal $\mathbb{R}$ .
<code>\Z</code>	Short hand notation for literal $\mathbb{Z}$ .
<code>\alef</code>	Short hand notation for literal $\aleph$ .
<code>\alefsym</code>	Short hand notation for literal $\aleph$ .
<code>\Alpha</code>	Short hand notation for literal $\mathbb{A}$ .
<code>\and</code>	Short hand notation for literal $\wedge$ . <i>This command is deprecated.</i>

<code>\ang</code>	Short hand notation for literal $\angle$ . <i>This command is deprecated.</i>
<code>\Beta</code>	Short hand notation for literal $\mathbb{B}$ .
<code>\bull</code>	Short hand notation for literal $\bullet$ .
<code>\Chi</code>	Short hand notation for literal $\mathbb{X}$ .
<code>\clubs</code>	Short hand notation for literal $\clubsuit$ .
<code>\cnums</code>	Short hand notation for literal $\mathbb{C}$ .
<code>\Complex</code>	Short hand notation for literal $\mathbb{C}$ .
<code>\Dagger</code>	Short hand notation for literal $\dagger$ .
<code>\diamonds</code>	Short hand notation for literal $\diamond$ .
<code>\Doteq</code>	Short hand notation for literal $\doteq$ .
<code>\doublecap</code>	Short hand notation for literal $\cap$ .
<code>\doublecup</code>	Short hand notation for literal $\cup$ .
<code>\empty</code>	Short hand notation for literal $\emptyset$ .
<code>\Epsilon</code>	Short hand notation for literal $\mathbb{E}$ .
<code>\Eta</code>	Short hand notation for literal $\mathbb{H}$ .
<code>\exist</code>	Short hand notation for literal $\exists$ .
<code>\ge</code>	Short hand notation for literal $\geq$ .
<code>\gggtr</code>	Short hand notation for literal $\gggtr$ .
<code>\hAar</code>	Short hand notation for literal $\Leftrightarrow$ .
<code>\harr</code>	Short hand notation for literal $\leftrightarrow$ .
<code>\Harr</code>	Short hand notation for literal $\Leftrightarrow$ .
<code>\hearts</code>	Short hand notation for literal $\heartsuit$ .
<code>\image</code>	Short hand notation for literal $\Im$ .
<code>\infin</code>	Short hand notation for literal $\infty$ .
<code>\Iota</code>	Short hand notation for literal $\mathbb{I}$ .
<code>\isin</code>	Short hand notation for literal $\in$ .
<code>\Kappa</code>	Short hand notation for literal $\mathbb{K}$ .
<code>\larr</code>	Short hand notation for literal $\leftarrow$ .
<code>\Larr</code>	Short hand notation for literal $\Leftarrow$ .
<code>\lArr</code>	Short hand notation for literal $\Leftarrow$ .
<code>\le</code>	Short hand notation for literal $\leq$ .
<code>\lrarr</code>	Short hand notation for literal $\leftrightarrow$ .
<code>\Lrarr</code>	Short hand notation for literal $\Leftrightarrow$ .
<code>\lRarr</code>	Short hand notation for literal $\Leftrightarrow$ .
<code>\Mu</code>	Short hand notation for literal $\mathbb{M}$ .
<code>\natnums</code>	Short hand notation for literal $\mathbb{N}$ .
<code>\ne</code>	Short hand notation for literal $\neq$ .
<code>\Nu</code>	Short hand notation for literal $\mathbb{N}$ .
<code>\O</code>	Short hand notation for literal $\emptyset$ .
<code>\omicron</code>	Short hand notation for literal $\circ$ .
<code>\Omicron</code>	Short hand notation for literal $\mathbb{O}$ .
<code>\or</code>	Short hand notation for literal $\vee$ . <i>This command is deprecated.</i>
<code>\part</code>	Short hand notation for literal $\partial$ . <i>This command is deprecated.</i>
<code>\plusmn</code>	Short hand notation for literal $\pm$ .
<code>\rarr</code>	Short hand notation for literal $\rightarrow$ .
<code>\Rarr</code>	Short hand notation for literal $\Rightarrow$ .
<code>\rArr</code>	Short hand notation for literal $\Rightarrow$ .

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\*This document corresponds to texvc v1.2, dated 2020/02/09.

<sup>1</sup>The command `\or` is only available if custom code is copied into your L<sup>A</sup>T<sub>E</sub>X-file. See page 7 for details.

<code>\real</code>	Short hand notation for literal $\Re$ .
<code>\reals</code>	Short hand notation for literal $\mathbb{R}$ .
<code>\Reals</code>	Short hand notation for literal $\mathbb{R}$ .
<code>\restriction</code>	Short hand notation for literal $\upharpoonright$ .
<code>\Rho</code>	Short hand notation for literal $\mathbb{P}$ .
<code>\sdot</code>	Short hand notation for literal $\cdot$ .
<code>\sect</code>	Short hand notation for literal $\S$ .
<code>\spades</code>	Short hand notation for literal $\spadesuit$ .
<code>\sub</code>	Short hand notation for literal $\subset$ .
<code>\sube</code>	Short hand notation for literal $\subseteq$ .
<code>\supe</code>	Short hand notation for literal $\supseteq$ .
<code>\Tau</code>	Short hand notation for literal $\mathbb{T}$ .
<code>\thetasym</code>	Short hand notation for literal $\vartheta$ .
<code>\varcoppa</code>	Short hand notation for literal $\wp$ .
<code>\weierp</code>	Short hand notation for literal $\wp$ .
<code>\Zeta</code>	Short hand notation for literal $\mathbb{Z}$ .

## 2 Deprecations

According to the decision of *Wikimedia Community User Group Math*<sup>2</sup> the following macros have been deprecated<sup>3</sup>:

1. `\$`
2. `\%`
3. `\and`
4. `\or`
5. `\part`
6. `\ang`
7. `\C`
8. `\H`
9. `\bold`
10. `\Bbb`

The commands 1,2,4,9,10 have never been part of this package, but were available from within Wikipedia.

<sup>2</sup><https://meta.wikimedia.org/w/index.php?oldid=19705444>

<sup>3</sup>See <https://phabricator.wikimedia.org/T197842> for the discussion.

### 3 Implementation

- `\darr` This macro does the following replacement.  
1 `\newcommand{\darr}{\downarrow}`
- `\dArr` This macro does the following replacement.  
2 `\newcommand{\dArr}{\Downarrow}`
- `\Darr` This macro does the following replacement.  
3 `\newcommand{\Darr}{\Downarrow}`
- `\lang` This macro does the following replacement.  
4 `\newcommand{\lang}{\langle}`
- `\rang` This macro does the following replacement.  
5 `\newcommand{\rang}{\rangle}`
- `\uarr` This macro does the following replacement.  
6 `\newcommand{\uarr}{\uparrow}`
- `\uArr` This macro does the following replacement.  
7 `\newcommand{\uArr}{\Uparrow}`
- `\Uarr` This macro does the following replacement.  
8 `\newcommand{\Uarr}{\Uparrow}`
- `\C` This macro does the following replacement.  
9 `%\newcommand{\C}{\mathbb{C}}`
- `\H` This macro does the following replacement.  
10 `\renewcommand{\H}{\mathbb{H}}`
- `\N` This macro does the following replacement.  
11 `\newcommand{\N}{\mathbb{N}}`
- `\Q` This macro does the following replacement.  
12 `\newcommand{\Q}{\mathbb{Q}}`
- `\R` This macro does the following replacement.  
13 `\newcommand{\R}{\mathbb{R}}`
- `\Z` This macro does the following replacement.  
14 `\newcommand{\Z}{\mathbb{Z}}`
- `\alef` This macro does the following replacement.  
15 `\newcommand{\alef}{\aleph}`
- `\alefsym` This macro does the following replacement.  
16 `\newcommand{\alefsym}{\aleph}`
- `\Alpha` This macro does the following replacement.  
17 `\newcommand{\Alpha}{\mathrm{A}}`

`\and` This macro does the following replacement.  
18 `\renewcommand{\and}{\land}`

`\ang` This macro does the following replacement.  
19 `\newcommand{\ang}{\angle}`

`\Beta` This macro does the following replacement.  
20 `\newcommand{\Beta}{\mathrm{B}}`

`\bull` This macro does the following replacement.  
21 `\newcommand{\bull}{\bullet}`

`\Chi` This macro does the following replacement.  
22 `\newcommand{\Chi}{\mathrm{X}}`

`\clubs` This macro does the following replacement.  
23 `\newcommand{\clubs}{\clubsuit}`

`\cnums` This macro does the following replacement.  
24 `\newcommand{\cnums}{\mathbb{C}}`

`\Complex` This macro does the following replacement.  
25 `\newcommand{\Complex}{\mathbb{C}}`

`\Dagger` This macro does the following replacement.  
26 `\newcommand{\Dagger}{\ddagger}`

`\diamonds` This macro does the following replacement.  
27 `\newcommand{\diamonds}{\diamondsuit}`

`\Doteq` This macro does the following replacement.  
28 `\renewcommand{\Doteq}{\doteqdot}`

`\doublecap` This macro does the following replacement.  
29 `\renewcommand{\doublecap}{\Cap}`

`\doublecup` This macro does the following replacement.  
30 `\renewcommand{\doublecup}{\Cup}`

`\empty` This macro does the following replacement.  
31 `\renewcommand{\empty}{\emptyset}`

`\Epsilon` This macro does the following replacement.  
32 `\newcommand{\Epsilon}{\mathrm{E}}`

`\Eta` This macro does the following replacement.  
33 `\newcommand{\Eta}{\mathrm{H}}`

`\exist` This macro does the following replacement.  
34 `\newcommand{\exist}{\exists}`

`\ge` This macro does the following replacement.  
35 `\renewcommand{\ge}{\geq}`

`\gggtr` This macro does the following replacement.  
36 `\renewcommand{\gggtr}{\ggg}`

`\hAar` This macro does the following replacement.  
37 `\newcommand{\hAar}{\Leftrightarrow}`

`\harr` This macro does the following replacement.  
38 `\newcommand{\harr}{\leftrightharrow}`

`\Harr` This macro does the following replacement.  
39 `\newcommand{\Harr}{\Leftrightarrow}`

`\hearts` This macro does the following replacement.  
40 `\newcommand{\hearts}{\heartsuit}`

`\image` This macro does the following replacement.  
41 `\newcommand{\image}{\Im}`

`\infin` This macro does the following replacement.  
42 `\newcommand{\infin}{\infty}`

`\Iota` This macro does the following replacement.  
43 `\newcommand{\Iota}{\mathrm{I}}`

`\isin` This macro does the following replacement.  
44 `\newcommand{\isin}{\in}`

`\Kappa` This macro does the following replacement.  
45 `\newcommand{\Kappa}{\mathrm{K}}`

`\larr` This macro does the following replacement.  
46 `\newcommand{\larr}{\leftarrow}`

`\Larr` This macro does the following replacement.  
47 `\newcommand{\Larr}{\Leftarrow}`

`\lArr` This macro does the following replacement.  
48 `\newcommand{\lArr}{\Leftarrow}`

`\le` This macro does the following replacement.  
49 `\renewcommand{\le}{\leq}`

`\lrarr` This macro does the following replacement.  
50 `\newcommand{\lrarr}{\leftrightharrow}`

`\Lrarr` This macro does the following replacement.  
51 `\newcommand{\Lrarr}{\Leftrightarrow}`

`\lrArr` This macro does the following replacement.  
52 `\newcommand{\lrArr}{\Leftrightarrow}`

`\Mu` This macro does the following replacement.  
53 `\newcommand{\Mu}{\mathrm{M}}`

`\natnums` This macro does the following replacement.  
54 `\newcommand{\natnums}{\mathbb{N}}`

`\ne` This macro does the following replacement.  
55 `\renewcommand{\ne}{\neq}`

`\Nu` This macro does the following replacement.  
56 `\newcommand{\Nu}{\mathrm{N}}`

`\O` This macro does the following replacement.  
57 `\renewcommand{\O}{\emptyset}`

`\omicron` This macro does the following replacement.  
58 `\newcommand{\omicron}{\mathrm{o}}`

`\Omicron` This macro does the following replacement.  
59 `\newcommand{\Omicron}{\mathrm{O}}`

`\or` This is a problematic macro, since it redefines the plain T<sub>E</sub>X macro `\or`. For instance, the `\thanks` command uses a custom function to determine the footnotesymbol, which relies on the availability of the `\or` command in math mode. Thus, the macro has to be defined after `\maketitle` was executed. However, there might be more commands that use `\or` used in mathmode. Thus we don't overwrite `\or` in this package. To enable the overwriting copy the code below to an appropriate position in your L<sup>A</sup>T<sub>E</sub>X-file. However, it might be easier to manually replace `\or` with `\lor` which is all what the macro above does.

```
60 %\let\oldor\or
61 %\def\or{\ifmode\lor\else\expandafter\oldor\fi}
```

`\part` This macro does the following replacement.  
62 `\renewcommand{\part}{\partial}`

`\plusmn` This macro does the following replacement.  
63 `\newcommand{\plusmn}{\pm}`

`\rarr` This macro does the following replacement.  
64 `\newcommand{\rarr}{\rightarrow}`

`\Rarr` This macro does the following replacement.  
65 `\newcommand{\Rarr}{\Rightarrow}`

`\rArr` This macro does the following replacement.  
66 `\newcommand{\rArr}{\Rightarrow}`

`\real` This macro does the following replacement.  
67 `\newcommand{\real}{\Re}`

`\reals` This macro does the following replacement.  
68 `\newcommand{\reals}{\mathbb{R}}`

`\Reals` This macro does the following replacement.  
69 `\newcommand{\Reals}{\mathbb{R}}`

`\restriction` This macro does the following replacement.  
70 `\renewcommand{\restriction}{\upharpoonright}`

`\Rho` This macro does the following replacement.  
71 `\newcommand{\Rho}{\mathrm{P}}`

`\sdot` This macro does the following replacement.  
72 `\newcommand{\sdot}{\cdot}`

`\sect` This macro does the following replacement.  
73 `\newcommand{\sect}{\S}`

`\spades` This macro does the following replacement.  
74 `\newcommand{\spades}{\spadesuit}`

`\sub` This macro does the following replacement.  
75 `\newcommand{\sub}{\subset}`

`\sube` This macro does the following replacement.  
76 `\newcommand{\sube}{\subseteq}`

`\supe` This macro does the following replacement.  
77 `\newcommand{\supe}{\supseteq}`

`\Tau` This macro does the following replacement.  
78 `\newcommand{\Tau}{\mathrm{T}}`

`\thetasym` This macro does the following replacement.  
79 `\newcommand{\thetasym}{\vartheta}`

`\varcoppa` This macro does the following replacement.  
80 `\newcommand{\varcoppa}{\mbox{\coppa}}`

`\weierp` This macro does the following replacement.  
81 `\newcommand{\weierp}{\wp}`

`\Zeta` This macro does the following replacement.  
82 `\newcommand{\Zeta}{\mathrm{Z}}`

## Change History

v1.0		v1.1
General: Initial version	..... 1	General: Fix bug with varcoppa,



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Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

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