

MdSymbol: A Math Symbol Font

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1 Introduction

MdSymbol is a font of mathematical symbols designed as a companion to Adobe Myriad Pro, but it might also fit well to other contemporary typefaces. To use this font in a \LaTeX document, add the command

`\usepackage[options]{MdSymbol}`

to the preamble of your document. With default settings, it redefines most of the standard mathematical symbols and makes available many new ones (see Section 4). With the `onlysansmath` option, the symbols are only defined for two new math versions, `sans` and `sansbold`. This allows to easily use two distinct math fonts in one document. For details and the other available options see section 3.1.

Acknowledgements

The MdSymbol font is heavily based on FdSymbol¹, another math symbol font, designed by Michael Ummels. All supporting scripts (to e.g. convert the MetaFont sources to Type 1 fonts) were written by him. I got a lot of help in `comp.text.tex` so basically the main code implementing the `onlysansmath` functionality is written by Bruno Le Floch, Enrico Gregorio, Lars Madsen and Heiko Oberdiek; the ugly parts and bugs by me.

2 Interferences with other packages

The MdSymbol package is incompatible with the `amssymb` and `amsfonts` packages. It automatically loads the `amsmath` and `textcomp` packages. If you want to pass options to these packages, you can either load these packages before MdSymbol or you can include the options in the `\documentclass` command.

3 Options

3.1 Font selection

MdSymbol comes in four weights, which are (in increasing order) Light, Regular, Semibold and Bold. Of these, Light and Regular are suitable for normal math typesetting, while Semibold and Bold can be used for bold math typesetting. Using the options **normalweight** and **boldweight**, you can select which weights are used. For example, to use the Light weight as the normal weight in math, add `normalweight=Light` to the package options. Analogously, to use the Bold weight with `\boldmath` or `\boldsymbol`, add `boldweight=Bold` to the package options. By default, Regular and Semibold are used. Additionally, it is possible to use a suitable weight automatically depending on the font size. By selecting `autolight` or `autoregular` for `normalweight`, Light or Regular weight, respectively, is used for font sizes larger than 6pt and Regular or Semibold, respectively, for smaller sizes. Similarly, `autosemibold`

¹<http://www.ctan.org/pkg/fdsymbol/>

for `boldweight` selects Semibold for bold symbols larger than 6pt and Bold below 6pt.

3.2 Math Symbols only in sans serif math

With the `onlysansmath` option, MdSymbol does not change already defined math symbols but declares two new math versions, `sans` and `sansbold`, and defines its symbols to be only used within these math versions. Use the command `\mathversion{sans}` or `\mathversion{sansbold}` to switch to this math version. Also single input character symbols (e.g. `+`, `-`, `(`, `)`) adapt to the math version except when used with a delimiter size increasing command like `\big`.² As a workaround, use the corresponding full command instead (`\big\lparen`).

3.3 Miscellaneous

MdSymbol uses and combines some symbols of the text font (section 4.7). The option `retainmissing` prevents this.

In order to use MdSymbol with different text fonts, it is possible to scale the fonts by an arbitrary factor. This can be achieved with the option `scale`. For example, to use the fonts at 90 % of their original size, you can add `scale=0.9` to the package options. Finally, it is possible to increase the height of delimiters slightly (by 20 % in text size and by 25 % in `\big` size). This can be achieved by activating the option `largedelims`. Use this option if you want to combine MdSymbol with a text font that has rather tall delimiters.

The following table summarises all options (keys) that can be used with the MdSymbol package. Values that correspond to the default behaviour of the package are marked by an asterisk.

Key	Values
<code>normalweight</code>	Light, Regular*, autolight, autoregular
<code>boldweight</code>	Semibold*, Bold, autosemibold
<code>onlysansmath</code>	true, false*
<code>retainmissing</code>	true, false*
<code>scale</code>	$\langle factor \rangle$
<code>largedelims</code>	true, false*

4 Symbols

The MdSymbol package provides the following symbols.

²Any help to solve this problem is highly welcome!

4.1 Ordinary symbols

...	<code>\hdots</code>	▷	<code>\revangle</code>
⋮	<code>\vdots</code>	⌵	<code>\measuredangle</code>
⋯	<code>\udots, \adots</code>	⋈	<code>\revmeasuredangle,</code> <code>\measuredangleleft</code>
⋱	<code>\ddots</code>	⋖	<code>\sphericalangle</code>
∴	<code>\righttherefore</code>	⋗	<code>\sphericalangleup</code>
∵	<code>\uptherefore, \therefore</code>	⋘	<code>\sphericalangleleft,</code> <code>\revsphericalangle,</code> <code>\gtlpar</code>
∴	<code>\lefttherefore</code>		
∵	<code>\downtherefore, \because</code>		
∴	<code>\squaredots</code>		
¬	<code>\neg, \lnot</code>	⋈	<code>\sphericalangledown</code>
⊖	<code>\backneg, \invnot, \invneg</code>	⊓	<code>\rightangle</code>
⊖	<code>\turnedneg, \turnednot</code>	⊓	<code>\measuredrightangle</code>
⊖	<code>\turnedbackneg</code>	⊓	<code>\rightanglesquare,</code> <code>\rightanglesqr</code>
△	<code>\largetriangleup</code>	⊓	<code>\measuredrightangledot,</code> <code>\rightanglemdot</code>
▽	<code>\largetriangleup</code>		
∅	<code>\emptyset, \diameter,</code> <code>\varnothing</code>	′	<code>\prime</code>
∅	<code>\revemptyset</code>	′	<code>\backprime</code>
○	<code>\largecircle, \lgwhtcircle</code>	✓	<code>\checkmark</code>
●	<code>\largeblackcircle</code>	⚡	<code>\lightning,</code> <code>\downzigzagarrow</code>
□	<code>\largesquare, \lgwhtsquare</code>	◇	<code>\diamondsuit</code>
■	<code>\largeblacksquare,</code> <code>\lgblksquare</code>	◆	<code>\vardiamondsuit</code>
◇	<code>\smalllozenge,</code> <code>\smwhtlozenge</code>	♥	<code>\heartsuit</code>
◆	<code>\smallblacklozenge,</code> <code>\smbkllozenge</code>	♥	<code>\varheartsuit</code>
◇	<code>\medlozenge, \lozenge,</code> <code>\mdlwhtlozenge,</code> <code>\mdwhtlozenge</code>	♠	<code>\spadesuit</code>
◆	<code>\medblacklozenge,</code> <code>\blacklozenge,</code> <code>\mdlgbkllozenge,</code> <code>\mdblkllozenge</code>	♣	<code>\clubsuit</code>
⊕	<code>\lozengeminus</code>	✠	<code>\maltese</code>
☆	<code>\largewhitestar</code>	☆	<code>\starofdavid</code>
★	<code>\largeblackstar, \bigstar</code>	∇	<code>\sector</code>
∞	<code>\infty</code>	∀	<code>\forall</code>
∠	<code>\angle</code>	∃	<code>\exists</code>
		∄	<code>\nexists</code>
		⊖	<code>\Finv</code>
		⊖	<code>\Game</code>
		C	<code>\complement</code>
		b	<code>\flat</code>
		ℏ	<code>\natural</code>
		#	<code>\sharp</code>

\aleph	<code>\aleph</code>	\bot	<code>\bot</code>
\beth	<code>\beth</code>	$/$	<code>/,\mathslash</code>
\gimel	<code>\gimel</code>	\backslash	<code>\backslashslash</code>
\daleth	<code>\daleth</code>	$ $	<code> ,\vert</code>
\wp	<code>\wp</code>	$\ $	<code>\Vert</code>
∇	<code>\nabla</code>	$\ $	<code>\Vvert</code>
\top	<code>\top</code>		

4.2 Binary operators

\cdot	<code>\cdot</code>	\ltimes	<code>\ltimes</code>
\centerdot	<code>\centerdot</code>	\lrtimes	<code>\lrtimes</code>
\hdotdot	<code>\hdotdot</code>	\bowtie	<code>\upbowtie,\hourglass</code>
\vdotdot	<code>\vdotdot</code>	\succ	<code>\rightY</code>
\udotdot	<code>\udotdot</code>	\succ	<code>\upY</code>
\ddotdotdot	<code>\ddotdotdot</code>	\prec	<code>\leftY</code>
$-$	<code>-,\minus</code>	\Uparrow	<code>\downY</code>
\medslash	<code>\medslash,\smalldivslash</code>	\wedge	<code>\wedge,\land</code>
\backslash	<code>\medbackslash,\smallsetminus</code>	\vee	<code>\vee,\lor</code>
$+$	<code>+, \plus</code>	\wedge	<code>\wedgedot</code>
\times	<code>\times</code>	\vee	<code>\veedot</code>
\dotminus	<code>\dotminus</code>	\wedge	<code>\doublewedge,\wedgeonwedge</code>
\minusdot	<code>\minusdot</code>	\wedge	<code>\doublevee,\veeonvee</code>
\div	<code>\div</code>	\curlywedge	<code>\curlywedge</code>
\minusfdots	<code>\minusfdots</code>	\curlyvee	<code>\curlyvee</code>
\minusrdots	<code>\minusrdots</code>	$\bar{\wedge}$	<code>\barwedge</code>
\pm	<code>\pm</code>	$\bar{\vee}$	<code>\veebar</code>
\mp	<code>\mp</code>	$\bar{\bar{\wedge}}$	<code>\doublebarwedge</code>
\dotplus	<code>\dotplus</code>	$\underline{\vee}$	<code>\veedoublebar</code>
\plusdot	<code>\plusdot</code>	\cup	<code>\cup</code>
\dottimes	<code>\dottimes</code>	\cap	<code>\cap</code>
\timesbar	<code>\timesbar</code>	\cup	<code>\doublecup,\Cup</code>
\divideontimes	<code>\divideontimes</code>	\cap	<code>\doublecap,\Cap</code>
\intprod	<code>\intprod</code>	\cup	<code>\cupdot</code>
\intprodr	<code>\intprodr</code>	\cap	<code>\capdot</code>
\leftthreetimes	<code>\leftthreetimes</code>	\cup	<code>\cupplus,\uplus</code>
\rightthreetimes	<code>\rightthreetimes</code>	\cap	<code>\capplus</code>
\dtimes	<code>\dtimes,\btimes</code>	\sqcup	<code>\sqcup</code>
\rtimes	<code>\rtimes</code>	\sqcap	<code>\sqcap</code>
\utimes	<code>\utimes,\ttimes</code>	\sqcup	<code>\doublesqcup,\Sqcup</code>
		\sqcap	<code>\doublesqcap,\Sqcap</code>









































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	<code>\sqcapdot</code>		<code>\overt,\circledvert</code>
	<code>\sqcupplus</code>		<code>\oslash</code>
	<code>\sqcapplus</code>		<code>\obackslash,\obslash</code>
	<code>\pullback</code>		<code>\oplus</code>
	<code>\pushout</code>		<code>\otimes</code>
	<code>\smalltriangleright</code>		<code>\odot</code>
	<code>\smalltriangleup</code>		<code>\ocirc,\circledcirc</code>
	<code>\smalltriangleleft</code>		<code>\oast,\circledast</code>
	<code>\smalltriangledown</code>		<code>\odash,\circleddash</code>
	<code>\smallblacktriangleright</code>		<code>\oequal,\circledequal</code>
	<code>\smallblacktriangleup</code>		<code>\bigcirc</code>
	<code>\smallblacktriangleleft</code>		<code>\smallsquare,\smwhtsquare</code>
	<code>\smallblacktriangledown</code>		<code>\smallblacksquare,</code> <code>\smbblksquare</code>
	<code>\medtriangleright,</code> <code>\triangleright</code>		<code>\medsquare,\square,\Box,</code> <code>\mdlgwhtsquare,</code> <code>\mdwhtsquare</code>
	<code>\medtriangleup,\triangle,</code> <code>\vartriangle</code>		<code>\medblacksquare,</code> <code>\mdlgblksquare,</code> <code>\mdblksquare</code>
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	<code>\medtriangledown,</code> <code>\triangledown</code>		<code>\boxvert,\boxbar</code>
	<code>\medblacktriangleright,</code> <code>\blacktriangleright</code>		<code>\boxslash,\boxdiag</code>
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	<code>\bigtriangledown</code>		<code>\boxbox</code>
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	<code>\smallblackcircle,\bullet,</code> <code>\smbllkcicle</code>		<code>\smallblackdiamond,</code> <code>\blackdiamond,</code> <code>\smbllkdiamond</code>
	<code>\medcircle,\mdlgwhtcircle,</code> <code>\mdwhtcircle</code>		<code>\meddiamond,\Diamond,</code> <code>\mdlgwhtdiamond,</code> <code>\mdwhtdiamond</code>
	<code>\medblackcircle,</code> <code>\mdlgblkcicle,</code> <code>\mdbllkcicle</code>		<code>\medblackdiamond,</code> <code>\mdlgblkdiamond,</code> <code>\mdbllkdiamond</code>
			<code>\diamondminus</code>

\diamond	<code>\diamondvert</code>	★	<code>\medblackstar, \medstar</code>
\diamond	<code>\diamondslash</code>	*	<code>*, \ast</code>
\diamond	<code>\diamondbackslash,</code> <code>\diamondbslash</code>	⌈	<code>\intercal</code>
\diamond	<code>\diamondplus</code>	⌋	<code>\wreath, \wr</code>
\diamond	<code>\diamondtimes</code>	⊍	<code>\amalg</code>
\diamond	<code>\diamonddot, \diamondcdot</code>	◁	<code>\lhd</code>
\diamond	<code>\diamondddiamond</code>	▷	<code>\rhd</code>
★	<code>\smallwhitestar,</code> <code>\smwhitestar</code>	◁	<code>\unlhd</code>
★	<code>\smallblackstar, \star</code>	▷	<code>\unrhd</code>
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
























































4.3 Relations

=	<code>=, \equal, \Relbar</code>	◊	<code>\frownsmile, \closure</code>
≡	<code>\equiv</code>	≡	<code>\smileeq</code>
~	<code>\sim</code>	≡	<code>\frowneq, \arceq</code>
↖	<code>\backsim</code>	⊖	<code>\eqcirc</code>
≈	<code>\approx</code>	⊖	<code>\circeq</code>
≈	<code>\triplesim, \approxident</code>	⊖	<code>\wedgeeq, \hateq</code>
≈	<code>\simeq</code>	⊖	<code>\veeeq</code>
≈	<code>\backsimeq</code>	⊖	<code>\stareq</code>
≈	<code>\eqsim</code>	⊖	<code>\triangleleeq, \triangleleq</code>
≡	<code>\cong</code>	∈	<code>\in</code>
≡	<code>\backcong</code>	⊃	<code>\owns, \ni</code>
≡	<code>\dotcong</code>	<	<code><, \less</code>
≈	<code>\approxeq</code>	>	<code>>, \gtr</code>
≈	<code>\bumpeq</code>	≤	<code>\leq, \le</code>
≈	<code>\bumpeqeq</code>	≥	<code>\geq, \ge</code>
≈	<code>\Bumpeq</code>	≤	<code>\leqslant</code>
⋮	<code>\doteq</code>	≥	<code>\geqslant</code>
⋮	<code>\eqdot</code>	≡	<code>\leqq</code>
⋮	<code>\Doteq</code>	≡	<code>\geqq</code>
⋮	<code>\fallingdotseq</code>	≈	<code>\lesssim</code>
⋮	<code>\risingdotseq</code>	≈	<code>\gtrsim</code>
⋮	<code>\coloneq, \coloneqq</code>	≈	<code>\lessapprox</code>
⋮	<code>\eqcolon, \eqqcolon</code>	≈	<code>\gtrapprox</code>
⋮	<code>\smile, \smallsmile</code>	≈	<code>\lessgtr</code>
⋮	<code>\frown, \smallfrown</code>	≈	<code>\gtrless</code>
⋮	<code>\smilefrown, \asymp</code>	≈	<code>\lesseqgtr</code>

\gtrless	<code>\gtreqless</code>	\succcurlyeq	<code>\succcurlyeq</code>
\lesseqgtr	<code>\lesseqgtr</code>	\preceq	<code>\preceq</code>
\gtreqless	<code>\gtreqless</code>	\succeq	<code>\succeq</code>
\lesseqslantgtr	<code>\lesseqslantgtr, \lesq</code>	\prec	<code>\prec</code>
\gtreqslantless	<code>\gtreqslantless, \gesl</code>	\succ	<code>\succ</code>
\ll	<code>\ll</code>	\approx	<code>\approx</code>
\gg	<code>\gg</code>	\succapprox	<code>\succapprox</code>
\lll, \lllless	<code>\lll, \lllless</code>	\lessdot	<code>\lessdot</code>
\ggg, \gggtr	<code>\ggg, \gggtr</code>	\gtrdot	<code>\gtrdot</code>
$\lessclosed,$	<code>\lessclosed,</code>	\leqdot	<code>\leqdot</code>
\vartriangleleft	<code>\vartriangleleft</code>	\geqdot	<code>\geqdot</code>
\vartriangleleft	<code>\vartriangleleft</code>	\leqslantdot, \lesdot	<code>\leqslantdot, \lesdot</code>
\vartriangleleft	<code>\vartriangleleft</code>	\geqslantdot, \gesdot	<code>\geqslantdot, \gesdot</code>
$\leqclosed, \trianglelefteq$	<code>\leqclosed, \trianglelefteq</code>	\eqslantless	<code>\eqslantless</code>
$\geqclosed, \trianglerighteq$	<code>\geqclosed, \trianglerighteq</code>	\eqslantgtr	<code>\eqslantgtr</code>
\lesscc, \ltcc	<code>\lesscc, \ltcc</code>	\curlyeqprec	<code>\curlyeqprec</code>
\gtrcc, \gtcc	<code>\gtrcc, \gtcc</code>	\curlyeqsucc	<code>\curlyeqsucc</code>
\leqslcc, \lescc	<code>\leqslcc, \lescc</code>	\thicksim	<code>\thicksim</code>
\geqslcc, \gescc	<code>\geqslcc, \gescc</code>	\thickapprox	<code>\thickapprox</code>
\sqsubset	<code>\sqsubset</code>	\rightarrow, \to	<code>\rightarrow, \to</code>
\sqsupset	<code>\sqsupset</code>	\uparrow	<code>\uparrow</code>
\sqsubseteq	<code>\sqsubseteq</code>	\leftarrow, \gets	<code>\leftarrow, \gets</code>
\sqsupseteq	<code>\sqsupseteq</code>	\downarrow	<code>\downarrow</code>
\sqsubseteq	<code>\sqsubseteq</code>	\nearrow	<code>\nearrow</code>
\sqsupseteq	<code>\sqsupseteq</code>	\nwarrow	<code>\nwarrow</code>
\sqsubseteq	<code>\sqsubseteq</code>	\swarrow	<code>\swarrow</code>
\sqsupseteq	<code>\sqsupseteq</code>	\searrow	<code>\searrow</code>
\Subset	<code>\Subset</code>	\Rightarrow	<code>\Rightarrow</code>
\Supset	<code>\Supset</code>	\Uparrow	<code>\Uparrow</code>
\subset	<code>\subset</code>	\Leftarrow	<code>\Leftarrow</code>
\supset	<code>\supset</code>	\Downarrow	<code>\Downarrow</code>
\subseteq	<code>\subseteq</code>	\nearrow	<code>\nearrow</code>
\supseteq	<code>\supseteq</code>	\nwarrow	<code>\nwarrow</code>
\subseteq	<code>\subseteq</code>	\swarrow	<code>\swarrow</code>
\supseteq	<code>\supseteq</code>	\searrow	<code>\searrow</code>
\Subset	<code>\Subset</code>	\leftrightharpoonup	<code>\leftrightharpoonup</code>
\Supset	<code>\Supset</code>	\updownarrow	<code>\updownarrow</code>
\prec	<code>\prec</code>	\nearrow	<code>\nearrow</code>
\succ	<code>\succ</code>	\nwarrow	<code>\nwarrow</code>
\preceq	<code>\preceq</code>	\Leftrightarrow	<code>\Leftrightarrow</code>
\succeq	<code>\succeq</code>	\Updownarrow	<code>\Updownarrow</code>
\preccurlyeq	<code>\preccurlyeq</code>		

	<code>\Neswarrow</code>		<code>\varhooksearrow</code>
	<code>\Nwsearrow</code>		<code>\rightharpoonup</code>
	<code>\twoheadrightarrow</code>		<code>\upharpoonleft</code>
	<code>\twoheaduparrow</code>		<code>\leftharpoondown</code>
	<code>\twoheadleftarrow</code>		<code>\downharpoonright</code>
	<code>\twoheaddownarrow</code>		<code>\neharpoonnw</code>
	<code>\twoheadnearrow</code>		<code>\nwharpoonsw</code>
	<code>\twoheadnwarrow</code>		<code>\swharpoonse</code>
	<code>\twoheadswarrow</code>		<code>\seharpoonne</code>
	<code>\twoheadsearrow</code>		<code>\rightharpoondown</code>
	<code>\rightarrowtail</code>		<code>\upharpoonright,</code> <code>\restriction</code>
	<code>\uparrowtail</code>		<code>\leftharpoonup</code>
	<code>\leftarrowtail</code>		<code>\downharpoonleft</code>
	<code>\downarrowtail</code>		<code>\neharpoonse</code>
	<code>\nearrowtail</code>		<code>\nwharpoonne</code>
	<code>\nwarrowtail</code>		<code>\swharpoonnw</code>
	<code>\swarrowtail</code>		<code>\seharpoonsw</code>
	<code>\searrowtail</code>		<code>\leftrightharpoonupdown</code>
	<code>\rightmapsto, \mapsto</code>		<code>\updownharpoonleftright</code>
	<code>\upmapsto, \mapsup</code>		<code>\neswharpoonnwse</code>
	<code>\leftmapsto, \mapsfrom</code>		<code>\nwseharpoonnesw</code>
	<code>\downmapsto, \mapsto</code>		<code>\leftrightharpoondownup</code>
	<code>\Rightmapsto, \Mapsto</code>		<code>\updownharpoonrightleft</code>
	<code>\Upmapsto, \Mapsup</code>		<code>\neswharpoonsenw</code>
	<code>\Leftmapsto, \Mapsfrom</code>		<code>\nwseharpoonswne</code>
	<code>\Downmapsto, \Mapsto</code>		<code>\rightleftharpoons</code>
	<code>\hookrightarrow</code>		<code>\updownharpoons,</code> <code>\updownharpoonsleftright</code>
	<code>\hookuparrow</code>		<code>\neswharpoons</code>
	<code>\varhookleftarrow</code>		<code>\senwharpoons</code>
	<code>\varhookdownarrow</code>		<code>\leftrightharpoons</code>
	<code>\varhooknearrow</code>		<code>\downupharpoons,</code> <code>\downupharpoonsleftright</code>
	<code>\hookknwarrow, \hknwarrow</code>		<code>\swneharpoons</code>
	<code>\varhookswarrow</code>		<code>\nwseharpoons</code>
	<code>\hooksearrow, \hksearrow</code>		<code>\rightarrow,</code> <code>\dashrightarrow,</code> <code>\dasharrow</code>
	<code>\varhookrightarrow</code>		<code>\upbkarrow</code>
	<code>\varhookuparrow</code>		
	<code>\hookleftarrow</code>		
	<code>\hookdownarrow</code>		
	<code>\hooknearrow, \hknearrow</code>		
	<code>\varhookknwarrow</code>		
	<code>\hookswarrow, \hkswarrow</code>		

\leftarrow	<code>\leftbkarrow,</code> <code>\dashleftarrow</code>	\rightsquigarrow	<code>\rightwvearrow,\leadsto,</code> <code>\rightsquigarrow,</code> <code>\rightcurvedarrow</code>
\downarrow	<code>\downbkarrow</code>	\Uparrow	<code>\varupwvearrow</code>
\nearrow	<code>\nebkarrow</code>	\leftleftarrows	<code>\varleftwvearrow</code>
\nwarrow	<code>\nwbkarrow</code>	\downharpoonright	<code>\downwvearrow</code>
\swarrow	<code>\swbkarrow</code>	\rightarrowtail	<code>\varrightwvearrow</code>
\searrow	<code>\sebkarrow</code>	\Uparrow	<code>\upwvearrow</code>
\rightarrowtail	<code>\rightspoon,\multimap</code>	\leftleftarrows	<code>\leftwvearrow,</code> <code>\leftsquigarrow,</code> <code>\leftcurvedarrow</code>
\upharpoonright	<code>\upspoon,\circlearrowleft</code>	\downharpoonright	<code>\vardownwvearrow</code>
\leftarrowtail	<code>\leftspoon,\multimapinv</code>	\leftrightarrow	<code>\leftrightwvearrow,</code> <code>\leftrightsquigarrow</code>
\downharpoonright	<code>\downspoon,\midcir</code>	\Updownarrow	<code>\updownwvearrow</code>
\rightarrowtail	<code>\rightblackspoon</code>	\leftrightarrow	<code>\varleftrightwvearrow</code>
\upharpoonright	<code>\upblackspoon</code>	\Updownarrow	<code>\varupdownwvearrow</code>
\leftarrowtail	<code>\leftblackspoon</code>	\curvearrowright	<code>\cwoverarcarrow,</code> <code>\curvearrowright</code>
\downharpoonright	<code>\downblackspoon</code>	\curvearrowleft	<code>\cwleftarcarrow</code>
\leftrightarrow	<code>\leftrightspoon,\dualmap</code>	\curvearrowright	<code>\cwunderarcarrow</code>
\leftrightarrow	<code>\leftrightblackspoon</code>	\curvearrowright	<code>\cwrightarcarrow</code>
\leftrightarrow	<code>\blackwhitespoon,\imageof</code>	\curvearrowright	<code>\cwnwarccarrow,</code> <code>\rightupcurvedarrow</code>
\leftrightarrow	<code>\whiteblackspoon,\origof</code>	\curvearrowright	<code>\cwswarcarrow,</code> <code>\upleftcurvedarrow</code>
\rightarrowtail	<code>\rightpitchfork</code>	\curvearrowright	<code>\cwsearcarrow,</code> <code>\leftdowncurvedarrow</code>
\uppitchfork	<code>\uppitchfork,\pitchfork</code>	\curvearrowright	<code>\cwnearccarrow,</code> <code>\downrightcurvedarrow</code>
\leftpitchfork	<code>\leftpitchfork</code>	\curvearrowright	<code>\acwunderarcarrow</code>
\downpitchfork	<code>\downpitchfork</code>	\curvearrowright	<code>\acwrightarcarrow</code>
\rightarrowtail	<code>\righttrightarrows</code>	\curvearrowright	<code>\acwoverarcarrow,</code> <code>\curvearrowleft</code>
\Uparrow	<code>\upuparrows</code>	\curvearrowright	<code>\acwleftarcarrow</code>
\Leftarrow	<code>\leftleftarrows</code>	\curvearrowright	<code>\acwsearcarrow,</code> <code>\uprightcurvearrow</code>
\Downarrow	<code>\downdownarrows</code>	\curvearrowright	<code>\acwnearccarrow,</code> <code>\leftupcurvedarrow</code>
\nearrow	<code>\nennearrows</code>	\curvearrowright	<code>\acwnwarccarrow,</code> <code>\downleftcurvedarrow</code>
\nwarrow	<code>\nwnwarrows</code>		
\swarrow	<code>\swswarrows</code>		
\searrow	<code>\sesearrows</code>		
\rightleftarrows	<code>\rightleftarrows</code>		
\Updownarrow	<code>\updownarrows</code>		
\nearrow	<code>\neswarrows</code>		
\nwarrow	<code>\nwsearrows</code>		
\leftrightharpoons	<code>\leftrightharpoons</code>		
\Updownarrow	<code>\downuparrows</code>		
\swarrow	<code>\swnearrows</code>		
\searrow	<code>\senwarrows</code>		

	<code>\acwswarrow,</code>		<code>\longrightwavyarrow,</code>
	<code>\righdowncurvedarrow</code>		<code>\longleadsto,</code>
	<code>\bdoverarcarrow</code>		<code>\longrightsquigarrow</code>
	<code>\bdleftarcarrow</code>		<code>\longleftwavyarrow,</code>
	<code>\bdunderarcarrow</code>		<code>\longleftsquigarrow</code>
	<code>\bdrightarcarrow</code>		<code>\longleftfootline,</code>
	<code>\bdnwarcarrow</code>		<code>\vlongdash</code>
	<code>\bdswarcarrow</code>		<code>\longrightfootline,</code>
	<code>\bdsearcarrow</code>		<code>\longdashv</code>
	<code>\bdnearcarrow</code>		<code>\Lsh</code>
	<code>\leftfootline</code>		<code>\Rsh</code>
	<code>\rightfootline</code>		<code>\Ldsh</code>
	<code>\acwcirculararrowup</code>		<code>\Rdsh</code>
	<code>\acwcirculararrowleft,</code>		<code>\looparrowright</code>
	<code>\circlearrowleft,</code>		<code>\looparrowleft</code>
	<code>\acwopencirculararrow</code>		<code>\rightvdash,\vdash</code>
	<code>\acwcirculararrowdown,</code>		<code>\upvdash,\perp</code>
	<code>\acwgapcirculararrow</code>		<code>\leftvdash,\dashv</code>
	<code>\acwcirculararrowright</code>		<code>\downvdash</code>
	<code>\cwcirculararrowdown,</code>		<code>\rightassert,\assert,</code>
	<code>\cwgapcirculararrow</code>		<code>\shortrighttack</code>
	<code>\cwcirculararrowright,</code>		<code>\upassert,\shortuptack</code>
	<code>\circlearrowright,</code>		<code>\leftassert,\shortlefttack</code>
	<code>\cwopencirculararrow</code>		<code>\downassert,\shortdowntack</code>
	<code>\cwcirculararrowup</code>		<code>\rightvDash,\vDash</code>
	<code>\cwcirculararrowleft</code>		<code>\upvDash,\Vbar</code>
	<code>\Rightarrow</code>		<code>\leftvDash,\Dashv</code>
	<code>\Uparrow</code>		<code>\downvDash,\barV</code>
	<code>\Lleftarrow</code>		<code>\rightmodels,\models</code>
	<code>\Ddownarrow</code>		<code>\upmodels</code>
	<code>\longrightarrow</code>		<code>\leftmodels</code>
	<code>\longleftarrow</code>		<code>\downmodels</code>
	<code>\Longrightarrow</code>		<code>\rightVdash,\Vdash</code>
	<code>\Longleftarrow</code>		<code>\upVdash</code>
	<code>\longleftrightarrow</code>		<code>\leftVdash,\dashV</code>
	<code>\Longlefttrightarrow</code>		<code>\downVdash</code>
	<code>\longmapsto</code>		<code>\rightAssert,\Assert</code>
	<code>\longmapsfrom</code>		<code>\upAssert,\vBar</code>
	<code>\Longmapsto</code>		<code>\leftAssert</code>
	<code>\Longmapsfrom</code>		<code>\downAssert,\Barv</code>
			<code>\rightVDash,\VDash</code>

\parallel	<code>\upVDash</code>	\nless	<code>\nless</code>
\dashv	<code>\leftVDash, \DashV</code>	\ngtr	<code>\ngtr</code>
\Uparrow	<code>\downVDash</code>	\nleq	<code>\nleq</code>
\Vdash	<code>\Vvdash</code>	\ngeq	<code>\ngeq</code>
\dashv	<code>\dashVv</code>	\nleqslant	<code>\nleqslant</code>
\Vdash	<code>\vDdash</code>	\ngeqslant	<code>\ngeqslant</code>
\Ddash	<code>\Ddashv</code>	\nleqq	<code>\nleqq</code>
\neq	<code>\nequal, \neq, \ne</code>	\ngeqq	<code>\ngeqq</code>
\nequiv	<code>\nequiv</code>	\nlesssim	<code>\nlesssim</code>
\nsim	<code>\nsim</code>	\ngtrsim	<code>\ngtrsim</code>
\nbacksimeq	<code>\nbacksimeq</code>	\nlessapprox	<code>\nlessapprox</code>
\napprox	<code>\napprox</code>	\ngtrapprox	<code>\ngtrapprox</code>
\ntriplesim	<code>\ntriplesim, \napproxident</code>	\nlessgtr	<code>\nlessgtr</code>
\nsimeq	<code>\nsimeq, \nsime</code>	\ngtrless	<code>\ngtrless</code>
\nbacksimeq	<code>\nbacksimeq</code>	\nlesseqgtr	<code>\nlesseqgtr</code>
\neqsim	<code>\neqsim</code>	\ngtreqlless	<code>\ngtreqlless</code>
\ncong	<code>\ncong</code>	\nlesseqqgtr	<code>\nlesseqqgtr</code>
\nbackcong	<code>\nbackcong</code>	\ngtreqqless	<code>\ngtreqqless</code>
\napproxeq	<code>\napproxeq</code>	\nlesseqslantgtr	<code>\nlesg</code>
\nbumpeq	<code>\nbumpeq</code>	\ngtreqslantless	<code>\ngesl</code>
\nbumpeq	<code>\nbumpeq</code>	\nll	<code>\nll</code>
\nBumpeq	<code>\nBumpeq</code>	\ngg	<code>\ngg</code>
\ndoteq	<code>\ndoteq</code>	\nlll	<code>\nlll</code>
\neqdot	<code>\neqdot</code>	\nggg	<code>\nggg</code>
\nDoteq	<code>\nDoteq</code>	\nlessclosed	<code>\nlessclosed</code>
\nfallingdotseq	<code>\nfallingdotseq</code>	\ntriangleleft	<code>\ntriangleleft</code>
\nrisingdotseq	<code>\nrisingdotseq</code>	\ngtrclosed	<code>\ngtrclosed</code>
\nsmile	<code>\nsmile</code>	\ntriangleright	<code>\ntriangleright</code>
\nfrown	<code>\nfrown</code>	\nleqclosed	<code>\nleqclosed</code>
\nsmilefrown	<code>\nsmilefrown, \nasymp</code>	\ntrianglelefteq	<code>\ntrianglelefteq</code>
\nfrownsmile	<code>\nfrownsmile, \nclosure</code>	\ngeqclosed	<code>\ngeqclosed</code>
\nsmileeq	<code>\nsmileeq</code>	\ntrianglerighteq	<code>\ntrianglerighteq</code>
\nfrowneq	<code>\nfrowneq, \narceq</code>	\nlesscc	<code>\nltcc</code>
\neqcirc	<code>\neqcirc</code>	\ngtrcc	<code>\ngtcc</code>
\ncirceq	<code>\ncirceq</code>	\nleqslcc	<code>\nlescc</code>
\nwedgeq	<code>\nwedgeq, \nhateq</code>	\ngeqslcc	<code>\ngescc</code>
\nveeeq	<code>\nveeeq</code>	\nsubset	<code>\nsubset</code>
\nstareq	<code>\nstareq</code>	\nsupset	<code>\nsupset</code>
\ntriangleeq	<code>\ntriangleeq</code>	\nsubseteq	<code>\nsubseteq</code>
\nin	<code>\nin, \notin</code>	\nsupseteq	<code>\nsupseteq</code>
\nowns	<code>\nowns, \nni</code>	\nsubsetneqq	<code>\nsubsetneqq</code>

\nsqsupseteqq	\lnapprox
\nSqsubset	\gnapprox
\nSqsupset	\sqsubsetneq
\nsubset	\sqsupsetneq
\nsupset	\sqsubsetneqq
\nsubseteq	\sqsupsetneqq
\nsupseteq	$\subsetneq, \varsubsetneq$
\nsubseteqq	$\supsetneq, \varsupsetneq$
\nsupseteqq	$\subsetneqq, \varsubsetneqq$
\nSubset	$\supsetneqq, \varsupsetneqq$
\nSupset	\precneq
\nprec	\succneq
\nsucc	\precneqq
\npreceq	\succneqq
\nsucceq	\precnsim
\npreccurlyeq	\succnsim
\nsucccurlyeq	\precnapprox
\npreceqq	\succnapprox
\nsucceqq	$\rightarrow, \rightarrowto$
\nprecsim	\uparrow
\nsuccsim	$\leftarrow, \leftarrowgets$
\nprecapprox	\downarrow
\nsuccapprox	\nearrow
\nlessdot	\nwarrow
\ngtrdot	\searrow
\nleqdot	\nearrow
\ngeqdot	$\rightarrow, \rightarrowto$
\nleqslantdot, \nlesdot	\Uparrow
\ngeqslantdot, \ngesdot	\Leftarrow
\neqslantless	\Downarrow
\neqslantgtr	\nearrow
\ncurlyeqprec	\nwarrow
\ncurlyeqsucc	\searrow
\simneq	\nearrow
\backsimneq	$\leftrightarrow, \leftrightarrowright$
\lneq	\updownarrow
\gneq	\nearrow
\lneqq, \lvertneqq	\nwarrow
\gneqq, \gvertneqq	$\leftrightarrow, \leftrightarrowright$
\lnsim	\Updownarrow
\gnsim	\nearrow

\nwarrow	<code>\nWsearrow</code>	\nearrow	<code>\nrightharpoonup</code>
\twoheadrightarrow	<code>\ntwoheadrightarrow</code>	\leftharpoonleft	<code>\nupharpoonleft</code>
\twoheaduparrow	<code>\ntwoheaduparrow</code>	$\leftharpoon\downarrow$	<code>\nleftharpoon\downarrow</code>
\twoheadleftarrow	<code>\ntwoheadleftarrow</code>	\downharpoonright	<code>\ndownharpoonright</code>
$\twohead\downarrow$	<code>\ntwoheaddownarrow</code>	\nneharpoonnw	<code>\nneharpoonnw</code>
\twoheadnearrow	<code>\ntwoheadnearrow</code>	$\nw\harpoon\sw$	<code>\nnw\harpoon\sw</code>
$\twoheadn\swarrow$	<code>\ntwoheadn\swarrow</code>	$\nw\harpoon\se$	<code>\nsw\harpoon\se</code>
$\twohead\swarrow$	<code>\ntwohead\swarrow</code>	$\nw\harpoon\se$	<code>\nw\harpoon\se</code>
\twoheadsearrow	<code>\ntwoheadsearrow</code>	$\nrightharpoon\downarrow$	<code>\nrightharpoon\downarrow</code>
\rightarrowtail	<code>\nrightarrowtail</code>	\upharpoonright	<code>\nupharpoonright,</code> <code>\nrestriction</code>
\uparrowtail	<code>\nuparrowtail</code>	\leftharpoonup	<code>\nleftharpoonup</code>
\leftarrowtail	<code>\nleftarrowtail</code>	\downharpoonleft	<code>\ndownharpoonleft</code>
\downarrowtail	<code>\ndownarrowtail</code>	$\nneharpoon\se$	<code>\nneharpoon\se</code>
\nearrowtail	<code>\nnearrowtail</code>	$\nw\harpoon\se$	<code>\nnw\harpoon\se</code>
\nwarrowtail	<code>\nnwarrowtail</code>	$\nw\harpoon\se$	<code>\nw\harpoon\se</code>
\swarrowtail	<code>\nswarrowtail</code>	$\nw\harpoon\se$	<code>\nw\harpoon\se</code>
\searrowtail	<code>\nsearrowtail</code>	$\nw\harpoon\se$	<code>\nw\harpoon\se</code>
\rightarrowmapsto	<code>\nrightmapsto, \nmapsto</code>	$\leftrightharpoon\up\downarrow$	<code>\nleftrightharpoon\up\downarrow</code>
\upmapsto	<code>\nupmapsto, \nmapsup</code>	$\up\downharpoon\leftright$	<code>\nup\downharpoon\leftright</code>
\leftmapsto	<code>\nleftmapsto, \nmapsf\rom</code>	$\nw\se\harpoon\nw\se$	<code>\nw\se\harpoon\nw\se</code>
\downmapsto	<code>\ndownmapsto, \nmap\down</code>	$\nw\se\harpoon\nw\se$	<code>\nw\se\harpoon\nw\se</code>
\Rightmapsto	<code>\nRightmapsto, \nMapsto</code>	$\leftrightharpoon\down\up$	<code>\nleftrightharpoon\down\up</code>
\Upmapsto	<code>\nUpmapsto, \nMapsup</code>	$\up\downharpoon\rightleft$	<code>\nup\downharpoon\rightleft</code>
\Leftmapsto	<code>\nLeftmapsto, \nMapsf\rom</code>	$\nw\se\harpoon\nw\se$	<code>\nw\se\harpoon\nw\se</code>
\Downmapsto	<code>\nDownmapsto, \nMap\down</code>	$\nw\se\harpoon\nw\se$	<code>\nw\se\harpoon\nw\se</code>
\hookrightarrow	<code>\nhookrightarrow</code>	\rightleftharpoons	<code>\nrightleftharpoons</code>
\hookrightarrow	<code>\nhookuparrow</code>	$\up\downharpoons, \up\down-$	<code>\nup\downharpoons, \nup\down-</code> <code>harpoonsleftright</code>
\hookleftarrow	<code>\nvarhookleftarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hook\downarrow$	<code>\nvarhook\downarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hooknearrow	<code>\nvarhooknearrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hookn\swarrow$	<code>\nhookn\swarrow, \nhkn\swarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hook\swarrow$	<code>\nvarhook\swarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hooksearrow	<code>\nhooksearrow, \nhksearrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hookrightarrow	<code>\nvarhookrightarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hookuparrow	<code>\nvarhookuparrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hookleftarrow	<code>\nhookleftarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hook\downarrow$	<code>\nhook\downarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hooknearrow	<code>\nhooknearrow, \nhknearrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hookn\swarrow$	<code>\nvarhookn\swarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
$\hook\swarrow$	<code>\nhook\swarrow, \nhk\swarrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>
\hooksearrow	<code>\nvarhooksearrow</code>	$\nw\se\harpoons$	<code>\nw\se\harpoons</code>

	<code>\ndownbkarrow</code>		<code>\nvarupwavearrow</code>
	<code>\nnebkarrow</code>		<code>\nvarleftwavearrow</code>
	<code>\nnwbkarrow</code>		<code>\ndownwavearrow</code>
	<code>\nswbkarrow</code>		<code>\nvarrightwavearrow</code>
	<code>\nsebkarrow</code>		<code>\nupwavearrow</code>
	<code>\nrightrightspoon, \nmultimap</code>		<code>\nleftwavearrow,</code>
	<code>\nupspoon, \ncirmid</code>		<code>\nleftsquigarrow,</code>
	<code>\nleftspoon, \nmultimapinv</code>		<code>\nleftcurvedarrow</code>
	<code>\ndownspoon, \nmidcir</code>		<code>\nvardownwavearrow</code>
	<code>\nrightrightblackspoon</code>		<code>\nleftrightwavearrow,</code>
	<code>\nupblackspoon</code>		<code>\nletrightsquigarrow</code>
	<code>\nleftblackspoon</code>		<code>\nupdownwavearrow</code>
	<code>\ndownblackspoon</code>		<code>\nvarleftrightwavearrow</code>
	<code>\nleftrightspoon, \ndualmap</code>		<code>\nvarupdownwavearrow</code>
	<code>\nleftrightblackspoon</code>		<code>\ncwoverarccarrow,</code>
	<code>\nblackwhitespoon,</code>		<code>\ncurvearrowright</code>
	<code>\nimageof</code>		<code>\ncwleftarccarrow</code>
	<code>\nwhiteblackspoon, \norigof</code>		<code>\ncwunderarccarrow</code>
	<code>\nrightrightpitchfork</code>		<code>\ncwrightarccarrow</code>
	<code>\nuppitchfork, \npitchfork</code>		<code>\ncwnwarccarrow,</code>
	<code>\nleftpitchfork</code>		<code>\nrightupcurvedarrow</code>
	<code>\ndownpitchfork</code>		<code>\ncwswarccarrow,</code>
	<code>\nrightrightarrows</code>		<code>\nupleftcurvedarrow</code>
	<code>\nupuparrows</code>		<code>\ncwsearccarrow,</code>
	<code>\nleftleftarrows</code>		<code>\nleftdowncurvedarrow</code>
	<code>\ndowndownarrows</code>		<code>\ncwnearccarrow,</code>
	<code>\nneneararrows</code>		<code>\ndownrightcurvedarrow</code>
	<code>\nnwnwarrows</code>		<code>\nacwunderarccarrow</code>
	<code>\nswswarrows</code>		<code>\nacwrightarccarrow</code>
	<code>\nsesearrows</code>		<code>\nacwoverarccarrow,</code>
	<code>\nrightrightarrows</code>		<code>\ncurvearrowleft</code>
	<code>\nupdownarrows</code>		<code>\nacwleftarccarrow</code>
	<code>\nneswarrows</code>		<code>\nacwsearccarrow,</code>
	<code>\nnwsearrows</code>		<code>\nuprightcurvearrow</code>
	<code>\nleftrightrightarrows</code>		<code>\nacwnearccarrow,</code>
	<code>\ndownuparrows</code>		<code>\nleftupcurvedarrow</code>
	<code>\nswnearrows</code>		<code>\nacwnwarccarrow,</code>
	<code>\nsenwarrows</code>		<code>\ndownleftcurvedarrow</code>
	<code>\nrightwavearrow, \nleadsto,</code>		<code>\nacwswarccarrow,</code>
	<code>\nrightrightsquigarrow,</code>		<code>\nrightdowncurvedarrow</code>
	<code>\nrightcurvedarrow</code>		<code>\nbdoverarccarrow</code>

	<code>\nbdleftarcarrow</code>		<code>\nlongleftwavyarrow,</code>
	<code>\nbdunderarcarrow</code>		<code>\nlongleftsquigarrow</code>
	<code>\nbdrightarcarrow</code>		<code>\nlongleftfootline,</code>
	<code>\nbdnwarcarrow</code>		<code>\nvlongdash</code>
	<code>\nbdswarcarrow</code>		<code>\nlongrightfootline,</code>
	<code>\nbdsearcarrow</code>		<code>\nlongdashv</code>
	<code>\nbdnearcarrow</code>		<code>\nrightvdash,\nvdash</code>
	<code>\nleftfootline</code>	\perp	<code>\nupvdash,\nperp</code>
	<code>\nrightfootline</code>	\dashv	<code>\nleftvdash,\ndashv</code>
	<code>\nacwcirculararrowup</code>	\nmid	<code>\ndownvdash</code>
	<code>\nacwcirculararrowleft,</code>	\models	<code>\nrightassert,\nassert,</code>
	<code>\ncirculararrowleft,</code>		<code>\nshortrighttack</code>
	<code>\nacwopencirculararrow</code>	\pm	<code>\nupassert,\nshortuptack</code>
	<code>\nacwcirculararrowdown,</code>	$\#$	<code>\nleftassert,</code>
	<code>\nacwgapcirculararrow</code>		<code>\nshortlefttack</code>
	<code>\nacwcirculararrowright</code>	\nmid	<code>\ndownassert,</code>
	<code>\ncwcirculararrowdown,</code>		<code>\nshortdowntack</code>
	<code>\ncwgapcirculararrow</code>	$\#$	<code>\nrightvDash,\nvDash</code>
	<code>\ncwcirculararrowright,</code>	\pm	<code>\nupvDash,\nVbar</code>
	<code>\ncirculararrowright,</code>	$\#$	<code>\nleftvDash,\nDashv</code>
	<code>\ncwopencirculararrow</code>	\nmid	<code>\ndownvDash,\nbarV</code>
	<code>\ncwcirculararrowup</code>	$\#$	<code>\nrightmodels,\nmodels</code>
	<code>\ncwcirculararrowleft</code>	\pm	<code>\nupmodels</code>
\Rightarrow	<code>\nRrightarrow</code>	$\#$	<code>\nleftmodels</code>
\Uparrow	<code>\nUparrow</code>	\nmid	<code>\ndownmodels</code>
\Leftarrow	<code>\nLleftarrow</code>	\nmid	<code>\nrightVdash,\nVdash</code>
\Downarrow	<code>\nDdownarrow</code>	\pm	<code>\nupVdash</code>
\rightarrow	<code>\nlongrightarrow</code>	\dashv	<code>\nleftVdash,\ndashV</code>
\leftarrow	<code>\nlongleftarrow</code>	\nmid	<code>\ndownVdash</code>
\Rightarrow	<code>\nLongrightarrow</code>	\nmid	<code>\nrightAssert,\nAssert</code>
\Leftarrow	<code>\nLongleftarrow</code>	\pm	<code>\nupAssert,\nvBar</code>
\leftrightarrow	<code>\nlongleftrightharrow</code>	$\#$	<code>\nleftAssert</code>
\Leftrightarrow	<code>\nLongleftrightharrow</code>	\nmid	<code>\ndownAssert,\nBarv</code>
\mapsto	<code>\nlongmapsto</code>	\nmid	<code>\nrightVDash,\nVDash</code>
\mapsto	<code>\nlongmapsfrom</code>	\pm	<code>\nupVDash</code>
\mapsto	<code>\nLongmapsto</code>	$\#$	<code>\nleftVDash,\nDashV</code>
\mapsto	<code>\nLongmapsfrom</code>	\nmid	<code>\ndownVDash</code>
\rightsquigarrow	<code>\nlongrightwavyarrow,</code>	\nmid	<code>\nVvdash</code>
	<code>\nlongleadsto,</code>	\dashv	<code>\ndashVv</code>
	<code>\nlongrightsquigarrow</code>	$\#$	<code>\nvDdash</code>
		$\#$	<code>\nDdashv</code>

:	$\mathbin{:}$	<code>\mathratio</code>	$\mathbin{\text{between}}$	<code>\between</code>
::	$\mathbin{:}$	<code>\Colon</code>	$\mathbin{\text{shortmid}}$	<code>\shortmid</code>
—	$\mathbin{\text{relbar}}$	<code>\relbar</code>	$\mathbin{\text{mid}}, \mathbin{\text{divides}}$	<code>\mid, \divides</code>
⋮	$\mathbin{\text{dotsminusdots}}$	<code>\dotsminusdots</code>	$\mathbin{\text{nshortmid}}$	<code>\nshortmid</code>
⋈	$\mathbin{\text{rJoin}}$	<code>\rJoin</code>	$\mathbin{\text{nmid}}, \mathbin{\text{ndivides}}$	<code>\nmid, \ndivides</code>
⋈	$\mathbin{\text{lJoin}}$	<code>\lJoin</code>	$\mathbin{\text{shortparallel}}$	<code>\shortparallel</code>
⋈	$\mathbin{\text{bowtie}}, \mathbin{\text{Join}}$	<code>\bowtie, \Join</code>	$\mathbin{\text{parallel}}$	<code>\parallel</code>
∝	$\mathbin{\text{propto}}, \mathbin{\text{varpropto}}$	<code>\propto, \varpropto</code>	$\mathbin{\text{nshortparallel}}$	<code>\nshortparallel</code>
∞	$\mathbin{\text{backpropto}}, \mathbin{\text{propfrom}}$	<code>\backpropto, \propfrom</code>	$\mathbin{\text{nparallel}}$	<code>\nparallel</code>
⋈	$\mathbin{\text{crossing}}$	<code>\crossing</code>		

4.4 Punctuation symbols

·	<code>\cdotp</code>	:	<code>\colon, \mathcolon</code>
---	---------------------	---	---------------------------------

4.5 Large operators

\bigplus	\bigplus	<code>\bigplus</code>	\bigsqcapdot	\bigsqcapdot	<code>\bigsqcapdot</code>
\bigtimes	\bigtimes	<code>\bigtimes</code>	\bigsqcupdot	\bigsqcupdot	<code>\bigsqcupdot</code>
\bigwedge	\bigwedge	<code>\bigwedge</code>	\bigsqcapplus	\bigsqcapplus	<code>\bigsqcapplus</code>
\bigvee	\bigvee	<code>\bigvee</code>	\bigsqcupplus	\bigsqcupplus	<code>\bigsqcupplus</code>
\bigwedgedot	\bigwedgedot	<code>\bigwedgedot</code>	\bigoplus	\bigoplus	<code>\bigoplus</code>
\bigveedot	\bigveedot	<code>\bigveedot</code>	\bigotimes	\bigotimes	<code>\bigotimes</code>
\bigdoublewedge	\bigdoublewedge	<code>\bigdoublewedge,</code>	\bigodot	\bigodot	<code>\bigodot</code>
		<code>\conjquant</code>	\bigcircast	\bigcircast	<code>\bigcircast</code>
\bigdoublevee	\bigdoublevee	<code>\bigdoublevee,</code>	\prod	\prod	<code>\prod</code>
		<code>\disjquant</code>	\coprod	\coprod	<code>\coprod</code>
\bigcurlywedge	\bigcurlywedge	<code>\bigcurlywedge</code>	\sum	\sum	<code>\sum</code>
\bigcurlyvee	\bigcurlyvee	<code>\bigcurlyvee</code>	\sum	\sum	<code>\sum</code>
\bigcap	\bigcap	<code>\bigcap</code>	\osum, \modtwosum	\osum, \modtwosum	<code>\osum, \modtwosum</code>
\bigcup	\bigcup	<code>\bigcup</code>	\int	\int	<code>\int</code>
\bigcapdot	\bigcapdot	<code>\bigcapdot</code>	\iint	\iint	<code>\iint</code>
\bigcupdot	\bigcupdot	<code>\bigcupdot</code>	\iiint	\iiint	<code>\iiint</code>
\bigcapplus	\bigcapplus	<code>\bigcapplus</code>	\iiint	\iiint	<code>\iiint</code>
\bigcupplus	\bigcupplus	<code>\bigcupplus, \biguplus</code>	$\int \dots \int$	$\int \dots \int$	<code>\int \dots \int, \dotsint</code>
\bigcapsq	\bigcapsq	<code>\bigcapsq</code>	\int	\int	<code>\int</code>
\bigcupsq	\bigcupsq	<code>\bigcupsq</code>	\int	\int	<code>\int</code>

\int	\int	<code>\intclockwise</code>	\oint	\oint	<code>\ointctrlockwise</code>
\int	\int	<code>\landdownint,\awint,</code> <code>\intctrlockwise</code>	\oint	\oint	<code>\lrcirclearightint,</code> <code>\varointclockwise</code>
\int	\int	<code>\intbar</code>	\oint	\oint	<code>\rcircleleftint,</code> <code>\varointctrlock-</code> <code>wise</code>
\int	\int	<code>\intBar</code>	\oint	\oint	<code>\lrcircleleftint,</code> <code>\ointclockwise</code>
\int	\int	<code>\fint</code>	\int	\int	<code>\sumint</code>
\oint	\oint	<code>\oint</code>	\prod	\prod	<code>\smallprod</code>
\oint	\oint	<code>\oiint</code>	\coprod	\coprod	<code>\smallcoprod</code>
\oint	\oint	<code>\oiint</code>	\int	\int	<code>\smallint</code>
\oint	\oint	<code>\rcirclearightint,</code>	$\sqrt{}$	$\sqrt{}$	<code>\surd</code>

4.6 Delimiters and accents

$((((($	<code>(,\lparen</code>	\llcorner	<code>\llcorner</code>
$))))$	<code>),\rparen</code>	\lrcorner	<code>\lrcorner</code>
$[[[[[$	<code>[,\lbrack</code>	\ulcorner	<code>\ulcorner</code>
$]]]]]$	<code>],\rbrack</code>	\urcorner	<code>\urcorner</code>
$\lfloor\lfloor\lfloor$	<code>\lfloor</code>	$\llbracket\llbracket\llbracket$	<code>\lsem,\lBrack</code>
$\rfloor\rfloor\rfloor$	<code>\rfloor</code>	$\rrbracket\rrbracket\rrbracket$	<code>\rsem,\rBrack</code>
$\lceil\lceil\lceil$	<code>\lceil</code>	$\{\{\{\{\{$	<code>\lbrace,\{</code>
$\rceil\rceil\rceil$	<code>\rceil</code>	$\}\}\}\}\}$	<code>\rbrace,\}</code>
$\ulcorner\ulcorner\ulcorner$	<code>\ulcorner</code>	$\langle\langle\langle\langle$	<code>\langle</code>
$\urcorner\urcorner\urcorner$	<code>\urcorner</code>	$\rangle\rangle\rangle\rangle$	<code>\rangle</code>

$\langle\langle\langle\langle$	<code>\lAngle</code>	 	<code>\rVvert</code>
$\rangle\rangle\rangle\rangle$	<code>\rAngle</code>	 	<code>\arrowvert</code>
$\langle\langle\langle\cdot$	<code>\langedot</code>	 	<code>\Arrowvert</code>
$\rangle\rangle\rangle\cdot$	<code>\rangedot</code>	$\text{[[[([$	<code>\lgroup</code>
//////	<code>/,\mathslash</code>	$\text{)]])]$	<code>\rgroup</code>
$\text{\\}\\\\$	<code>\backslashslash</code>	$\text{[[[[[$	<code>\lmoustache</code>
 	<code>l,\vert</code>	[[[[[<code>\rmoustache</code>
 	<code>\lvert</code>	 	<code>\bracevert</code>
 	<code>\rvert</code>	$\text{\uparrow\uparrow\uparrow}$	<code>\uparrow</code>
 	<code>\Vert,\ </code>	$\text{\downarrow\downarrow\downarrow}$	<code>\downarrow</code>
 	<code>\lVert</code>	$\text{\updownarrow\updownarrow}$	<code>\updownarrow</code>
 	<code>\rVert</code>	$\text{\Uparrow\Uparrow\Uparrow}$	<code>\Uparrow</code>
 	<code>\Vvert</code>	$\text{\Downarrow\Downarrow\Downarrow}$	<code>\Downarrow</code>
 	<code>\lVvert</code>	$\text{\Updownarrow\Updownarrow\Updownarrow}$	<code>\Updownarrow</code>
\overbrace{xxx}	<code>\overbrace</code>	\overline{xxx}	<code>\overlinesegment</code>
\underbrace{xxx}	<code>\underbrace</code>	\overleftarrow{xxx}	<code>\overleftharpoon</code>
\overgroup{xxx}	<code>\overgroup</code>	\overrightarrow{xxx}	<code>\overrightharpoon</code>
\undergroup{xxx}	<code>\undergroup</code>	\underline{xxx}	<code>\underlinesegment</code>
\sqrt{b}	<code>\sqrt</code>	\vec{b}	<code>\vec</code>
\widehat{xxx}	<code>\widehat</code>	\bar{b}	<code>\middlebar</code>
\widetilde{xxx}	<code>\widetilde</code>	$\text{\textbackslash}b$	<code>\middleslash</code>
\wideparen{xxx}	<code>\wideparen</code>	$\text{\textbackslash}b$	<code>\strokethrough</code>

4.7 Faked symbols

The following symbols are taken from the text font.

†	<code>\dagger</code>	ℏ	<code>\hbar</code>
‡	<code>\ddagger</code>	ℎ	<code>\hslash</code>
¶	<code>\mathparagraph</code>	Ⓜ	<code>\circledR</code>
§	<code>\mathsection</code>	Ⓢ	<code>\circledS</code>
\$	<code>\mathdollar</code>	λ	<code>\lambdabar</code>
£	<code>\mathsterling</code>	λ	<code>\lambdaslash</code>
¥	<code>\yen</code>		

4.8 Missing symbols

The following symbols from Computer Modern or the AMS fonts are missing in MdSymbol. If available, they should be taken from the text font.

<code>\mho</code>	<code>\backepsilon</code>	<code>\diagup</code>
<code>\eth</code>	<code>\mapstochar</code>	<code>\diagdown</code>
<code>\digamma</code>	<code>\lhook</code>	<code>\Bbbk</code>
<code>\varkappa</code>	<code>\rhook</code>	

5 Implementation

```
1 /{*style}
2 \RequirePackage{xkeyval}
3 \newcommand*\mdsy@choicakey[3]{%
4   \define@choicakey*MdSymbol.sty-#{1}[\@tempa\@tempb]{#2}-{#3}%
5 }
```

We use xkeyval's key mechanism to declare all options. The first options determines the size of delimiters.

```
6 \define@boolkey{MdSymbol.sty}[mdsy@]{largedelims}[true]{}
```

The following option determines whether faked symbols should be defined.

```
7 \define@boolkey{MdSymbol.sty}[mdsy@]{retainmissing}[true]{}
```

The next option allows to scale the fonts by an arbitrary factor.

```
8 \newcommand{\mdsy@scale}{1.0}
9 \define@key{MdSymbol.sty}{scale}{\renewcommand\mdsy@scale{#1}}
```

The next option controls whether only the sans and sansbold mathversions are modified.

```
10 \define@boolkey{MdSymbol.sty}[mdsy@]{onlysansmath}[true]{}
```

The following two options control which weights are used for which math version and font size.

```

11 \newcommand\mdsy@mweight@normal{Regular}
12 \newcommand\mdsy@mweight@small{Regular}
13 \newcommand\mdsy@bweight@normal{Semibold}
14 \newcommand\mdsy@bweight@small{Semibold}
15 \mdsy@choicekey{normalweight}{light,regular,autolight,autoregular}{%
16   \ifcase \@tempb\relax
17     \renewcommand\mdsy@mweight@normal{Light}%
18     \renewcommand\mdsy@mweight@small{Light}%
19   \or
20     \renewcommand\mdsy@mweight@normal{Regular}%
21     \renewcommand\mdsy@mweight@small{Regular}%
22   \or
23     \renewcommand\mdsy@mweight@normal{Light}%
24     \renewcommand\mdsy@mweight@small{Regular}%
25   \or
26     \renewcommand\mdsy@mweight@normal{Regular}%
27     \renewcommand\mdsy@mweight@small{Semibold}%
28   \fi
29 }
30 \mdsy@choicekey{boldweight}{semibold,bold,autosemibold}{%
31   \ifcase \@tempb\relax
32     \renewcommand\mdsy@bweight@normal{Semibold}%
33     \renewcommand\mdsy@bweight@small{Semibold}%
34   \or
35     \renewcommand\mdsy@bweight@normal{Bold}%
36     \renewcommand\mdsy@bweight@small{Bold}%
37   \or
38     \renewcommand\mdsy@bweight@normal{Semibold}%
39     \renewcommand\mdsy@bweight@small{Bold}%
40   \fi
41 }
42 \ExecuteOptionsX{largedelims=false,onlysansmath=false,retainmissing=false}
43 \ProcessOptionsX

```

Load external packages, but only if they are not already loaded in order to avoid warning messages about loading a package twice with different options.

```

44 \@ifpackageloaded{amsmath}{\RequirePackage{amsmath}}
45 \@ifpackageloaded{textcomp}{\RequirePackage{textcomp}}

```

Command to check whether tabular math version is available

```

46 \newcommand*\mdsy@if@tabular@math[1]{%
47   \@ifundefined{mv@tabular}{\#1}%
48 }

```

Add an additional switch into the mathversion command to indicate sans or sansbold math. Putting this into the \ifmathversionsans command does not work with the delimiter definition below.

```

49 \ifmdsy@onlysansmath
50   \DeclareMathVersion{sans}
51   \DeclareMathVersion{sansbold}
52   \mdsy@if@tabular@math{%
53     \DeclareMathVersion{sanstabular}%
54     \DeclareMathVersion{sansboldtabular}}
55
56   \newif\if@mdsy@sans@
57
58   \let\mathversion@old\mathversion
59   \def\sans@version{sans}
60   \def\sans@version@bold{sansbold}
61   \def\sans@version@tab{sanstabular}
62   \def\sans@version@bold@tab{sansboldtabular}
63   \renewcommand{\mathversion}[1]{%
64     \mathversion@old{#1}%
65     \@mdsy@sans@false%
66     \ifx\math@version\sans@version%
67       \@mdsy@sans@true%
68     \fi%
69     \ifx\math@version\sans@version@bold%
70       \@mdsy@sans@true%
71     \fi%
72     \ifx\math@version\sans@version@tab%
73       \@mdsy@sans@true%
74     \fi%
75     \ifx\math@version\sans@version@bold@tab%
76       \@mdsy@sans@true%
77     \fi%
78   }
79 \fi
80 \def\ifmathversionsans{%
81   \if@mdsy@sans@
82     \expandafter\@firstoftwo
83   \else
84     \expandafter\@secondoftwo
85   \fi
86 }

```

The following shorthands simplify the definition of commands which have different output depending on the mathversion in the case of `onlysansmath`. Without that option, they just normally define the commands.

```

87 \RequirePackage{etoolbox}
88
89 \newcommand\mdsy@setslot[1]{\@tempcnta #1\relax}
90 \newcommand\mdsy@nextslot{\advance\@tempcnta 1\relax}

```

```

91 \newcommand\mdsy@prevslot{\advance\@tempcnta-1\relax}
92
93 \newcommand\mdsy@@DeclareSymbol[4]{\expandafter\DeclareMathSymbol\expandafter{\csname
94
95 \ifmdsy@onlysansmath
96   \newcommand\mdsy@DeclareSymbol[3]{%
97     \ifcsdef{#1}{%
98       \csletcs{#1@old}{#1}%
99     }\expandafter\mdsy@@DeclareSymbol\expandafter{\the\@tempcnta}{#1}{#3}{#2}%
100     \csletcs{#1@old}{#1}}
101   \expandafter\mdsy@@DeclareSymbol\expandafter{\the\@tempcnta}{sans#1}{#3}{#2}%
102 %   \csletcs{#1@new}{sans#1}
103   \csundef{#1}%
104   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
105   \mdsy@nextslot
106 }
107 \newcommand\mdsy@DeclareDelimiter[4]{%
108   \ifcsdef{#1}{%
109     \csletcs{#1@old}{#1}%
110   }\expandafter\DeclareMathDelimiter\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#
111     \csletcs{#1@old}{#1}}%
112   \expandafter\DeclareMathDelimiter\expandafter{\csname sans#1\endcsname}{#2}{#3}{#
113 %   \csletcs{#1@new}{sans#1}
114   \csundef{#1}%
115   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
116 }
117 \newcommand\mdsy@DeclareOperator[3]{%
118   \ifcsdef{#1}{%
119     \csletcs{#1@old}{#1}%
120   }\csdef{#1}{\DOTSB#3\slimits@}
121     \csletcs{#1@old}{#1}}%
122   \csdef{sans#1}{\DOTSB#3\slimits@}
123 %   \csletcs{#1@new}{sans#1}
124   \csundef{#1}%
125   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
126 }
127 \newcommand\mdsy@DeclareIntegral[3]{%
128   \ifcsdef{#1}{%
129     \csletcs{#1@old}{#1}%
130   }\csdef{#1}{\DOTSI#3\ilimits@}
131     \csletcs{#1@old}{#1}}%
132   \csdef{sans#1}{\DOTSI#3\ilimits@}%
133 %   \csletcs{#1@new}{sans#1}
134   \csundef{#1}%
135   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}

```

```

136 }
137 \newcommand\mdsy@DeclareMathSymbol[4]{%
138   \ifcsdef{#1}{%
139     \csletcs{#1@old}{#1}%
140     }\expandafter\DeclareMathSymbol\expandafter{\csname#1\endcsname}{#2}{#3}{#4}%
141     \csletcs{#1@old}{#1}}%
142   \expandafter\DeclareMathSymbol\expandafter{\csname sans#1\endcsname}{#2}{#3}{#4}%
143 %   \csletcs{#1@new}{sans#1}
144   \csundef{#1}%
145   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
146 }
147 \newcommand\mdsy@DeclareMathDelimiter[6]{%
148   \ifcsdef{#1}{%
149     \csletcs{#1@old}{#1}%
150     }\expandafter\DeclareMathDelimiter\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#5}{#6}%
151     \csletcs{#1@old}{#1}}%
152   \expandafter\DeclareMathDelimiter\expandafter{\csname sans#1\endcsname}{#2}{#3}{#4}{#5}{#6}%
153 %   \csletcs{#1@new}{sans#1}
154   \csundef{#1}%
155   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
156 }
157 \newcommand\mdsy@DeclareMathAccent[4]{%
158   \ifcsdef{#1}{%
159     \csletcs{#1@old}{#1}%
160     }\expandafter\DeclareMathAccent\expandafter{\csname#1\endcsname}{#2}{#3}{#4}%
161     \csletcs{#1@old}{#1}}%
162   \expandafter\DeclareMathAccent\expandafter{\csname sans#1\endcsname}{#2}{#3}{#4}%
163 %   \csletcs{#1@new}{sans#1}
164   \csundef{#1}%
165   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
166 }
167 \newcommand\mdsy@DeclareMathRadical[5]{%
168   \ifcsdef{#1}{%
169     \csletcs{#1@old}{#1}%
170     }\expandafter\DeclareMathRadical\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#5}%
171     \csletcs{#1@old}{#1}}%
172   \expandafter\DeclareMathRadical\expandafter{\csname sans#1\endcsname}{#2}{#3}{#4}{#5}%
173 %   \csletcs{#1@new}{sans#1}
174   \csundef{#1}%
175   \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
176 }
177 \newcommand{\mdsy@DeclareActiveMathSymbol}[4]{%
178   \ifnum\mathcode'#1="8000 %
179     \errmessage{'#1' is already active}%
180   \fi

```



```

181 \expandafter\mathchardef\csname#1@old\endcsname=\mathcode'#1 %
182 \expandafter\DeclareMathSymbol\csname#1@new\endcsname{#2}{#3}{#4}
183 \begingroup
184 \lccode'\~='#1 %
185 \lowercase{\endgroup
186 \def~%
187 }{\ifmathversionsans{\csname#1@new\endcsname}{\csname#1@old\endcsname}}%
188 \mathcode'#1="8000 %
189 }
190 \newcommand{\mdsy@DeclareActiveMathDelimiter}[4]{%
191 % don't know how to implement an active math delimiter; so de-
clare
192 % it as an active math symbol instead
193 \mdsy@DeclareActiveMathSymbol{#1}{#2}{#3}{#4}
194 }
195 \newcommand{\mdsy@renewcommand}[2]{%
196 \ifcsdef{#1}{%
197 \csletcs{#1@old}{#1}%
198 }{%
199 \expandafter\newcommand\csname #1@old\endcsname{#2}%
200 }%
201 \expandafter\newcommand\csname sans#1\endcsname{#2}%
202 \csundef{#1}%
203 \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
204 }
205 \newcommand{\mdsy@DeclareRobustCommandArg}[3]{%
206 \ifcsdef{#1}{%
207 \csletcs{#1@old}{#1}%
208 }{%
209 \expandafter\DeclareRobustCommand\csname#1\endcsname[#2]{#3}%
210 \csletcs{#1@old}{#1}%
211 }%
212 \expandafter\DeclareRobustCommand\csname sans#1\endcsname[#2]{#3}%
213 \csundef{#1}%
214 \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
215 }
216 \newcommand{\mdsy@DeclareRobustCommand}[2]{%
217 \ifcsdef{#1}{%
218 \csletcs{#1@old}{#1}%
219 }{%
220 \expandafter\DeclareRobustCommand\csname#1\endcsname{#2}%
221 \csletcs{#1@old}{#1}%
222 }%
223 \expandafter\DeclareRobustCommand\csname sans#1\endcsname{#2}%
224 \csundef{#1}%

```

```

225 \csdef{#1}{\ifmathversionsans{\csname sans#1\endcsname}{\csname#1@old\endcsname}}
226 }
227 \else
228 \let\ifmathversionsans\undefined
229 \newcommand\mdsy@DeclareSymbol[3]{%
230 \csundef{#1}%
231 \expandafter\mdsy@@DeclareSymbol\expandafter{\the\@tempcnta}{#1}{#3}{#2}%
232 \mdsy@nextslot
233 }
234 \newcommand\mdsy@DeclareDelimiter[4]{%
235 \csundef{#1}%
236 \expandafter\DeclareMathDelimiter\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#3}
237 }
238 \newcommand\mdsy@DeclareOperator[3]{%
239 \csdef{#1}{\DOTSB#3\slimits@}%
240 }
241 \newcommand\mdsy@DeclareIntegral[3]{%
242 \csdef{#1}{\DOTSI#3\ilimits@}%
243 }
244 \newcommand\mdsy@DeclareMathSymbol[4]{%
245 \expandafter\DeclareMathSymbol\expandafter{\csname#1\endcsname}{#2}{#3}{#4}%
246 }
247 \newcommand\mdsy@DeclareMathDelimiter[6]{%
248 \expandafter\DeclareMathDelimiter\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#5}
249 }
250 \newcommand\mdsy@DeclareMathAccent[4]{%
251 \expandafter\DeclareMathAccent\expandafter{\csname#1\endcsname}{#2}{#3}{#4}%
252 }
253 \newcommand\mdsy@DeclareMathRadical[5]{%
254 \expandafter\DeclareMathRadical\expandafter{\csname#1\endcsname}{#2}{#3}{#4}{#5}%
255 }
256 \newcommand\mdsy@DeclareActiveMathSymbol[4]{%
257 \DeclareMathSymbol{#1}{#2}{#3}{#4}%
258 }
259 \newcommand\mdsy@DeclareActiveMathDelimiter[4]{%
260 \DeclareMathDelimiter{#1}{#2}{#3}{#4}{#3}{#4}%
261 }
262 \newcommand{\mdsy@renewcommand}[2]{%
263 \expandafter\providecommand\csname #1\endcsname{#2}%
264 }
265 \newcommand{\mdsy@DeclareRobustCommand}[2]{%
266 \expandafter\DeclareRobustCommand\csname#1\endcsname{#2}%
267 }
268 \newcommand{\mdsy@DeclareRobustCommandArg}[3]{%
269 \expandafter\DeclareRobustCommand\csname#1\endcsname{#2}{#3}%

```

```

270 }
271 \fi
272
273 \newcommand\mdsy@DeclareAlias[3]{\mdsy@prevslot\mdsy@DeclareSymbol{#1}{#2}{#3}}
274
275 \newcommand\mdsy@DeclareOpen[3]{\mdsy@DeclareDelimiter{#1}{\mathopen}{#2}{#3}}
276 \newcommand\mdsy@DeclareClose[3]{\mdsy@DeclareDelimiter{#1}{\mathclose}{#2}{#3}}

```

If the option `largedelims` has been selected, we readjust the scaling factors of big delimiters, so that `\Big`, `\bigg` and `\Bigg` do not change their size.

```

277 \ifmdsy@largedelims
278   \mdsy@renewcommand\Big{\bBigg@{1.25}}
279   \mdsy@renewcommand\bigg{\bBigg@{1.66}}
280   \mdsy@renewcommand\Bigg{\bBigg@{2.08}}
281 \fi

```

Some symbols missing from `MdSymbol` can be obtained from other fonts or by combining several other symbols.

```

282 \ifmdsy@retainmissing
283 \else
284   \mdsy@DeclareRobustCommand\dagger{\mdsy@text{\textdagger}}
285   \mdsy@DeclareRobustCommand\ddagger{\mdsy@text{\textdaggerdbl}}
286   \mdsy@DeclareRobustCommand\mathparagraph{\mdsy@text{\textparagraph}}
287   \mdsy@DeclareRobustCommand\mathsection{\mdsy@text{\textsection}}
288   \mdsy@DeclareRobustCommand\mathdollar{\mdsy@text{\textdollar}}
289   \mdsy@DeclareRobustCommand\mathsterling{\mdsy@text{\textsterling}}
290   \mdsy@DeclareRobustCommand\yen{\mdsy@text{\textyen}}
291   \mdsy@DeclareRobustCommand\circledR{\mdsy@text{\textcircled{%
292     \check@mathfonts\fontsize\sfsize\z@ \math@fontsfalse\selectfont R}}}
293   \mdsy@DeclareRobustCommand\circledS{\mdsy@text{\textcircled{%
294     \check@mathfonts\fontsize\sfsize\z@ \math@fontsfalse\selectfont S}}}
295   \mdsy@DeclareRobustCommand\Re{\mathfrak{R}}
296   \mdsy@DeclareRobustCommand\Im{\mathfrak{I}}
297   \mdsy@DeclareRobustCommand\dotcong{\mathrel{\dot{\cong}}}
298   \mdsy@DeclareRobustCommand\thicksim{\mathrel{\text{\boldmath$\m@th\sim$}}}
299   \mdsy@DeclareRobustCommand\thickapprox{\mathrel{\text{\boldmath$\m@th\approx$}}}
300   \mdsy@DeclareRobustCommand\hslash{\middleslash h}
301   \mdsy@DeclareRobustCommand\centerdot{\mathbin{\rule{0.15em}{0.15em}}}
302   \mdsy@DeclareRobustCommand\lambdabar{\middlebar\lambda}
303   \mdsy@DeclareRobustCommand\lambdaslash{\middleslash\lambda}
304   \ifpackageloaded{MyriadPro}{\%
305     \mdsy@DeclareRobustCommand\hbar{\middlebar h}\%
306   }
307 \fi

```

Unneeded partial symbols.

```

308 \ifmdsy@onlysansmath

```

```

309 \else
310   \let\mapstochar\undefined
311   \let\lhook\undefined
312   \let\rhook\undefined
313 \fi

Font definitions.
314 \DeclareFontFamily{U}{MdSymbolA}{}
315 \DeclareFontFamily{U}{MdSymbolB}{}
316 \DeclareFontFamily{U}{MdSymbolC}{}
317 \DeclareFontFamily{U}{MdSymbolD}{}
318 \DeclareFontFamily{U}{MdSymbolE}{}
319 \DeclareFontFamily{U}{MdSymbolF}{}
320
321 \RequirePackage{fltpoint}
322 \fpDecimalSign{.}
323 \newcommand*{\mdsy@calc@bsize}[2]{\fpDiv{#1}{#2}{\mdsy@scale}}
324
325 \mdsy@calc@bsize{\mdsy@s@medium}{6}
326 \mdsy@calc@bsize{\mdsy@s@bold}{6}
327
328 \DeclareFontShape{U}{MdSymbolA}{m}{n}{
329   <
330     <\mdsy@s@medium-
331   }{}
332 \DeclareFontShape{U}{MdSymbolA}{b}{n}{
333   <
334     <\mdsy@s@bold -
335   }{}
336 \DeclareFontShape{U}{MdSymbolB}{m}{n}{
337   <
338     <\mdsy@s@medium-
339   }{}
340 \DeclareFontShape{U}{MdSymbolB}{b}{n}{
341   <
342     <\mdsy@s@bold -
343   }{}
344 \DeclareFontShape{U}{MdSymbolC}{m}{n}{
345   <
346     <\mdsy@s@medium-
347   }{}
348 \DeclareFontShape{U}{MdSymbolC}{b}{n}{
349   <
350     <\mdsy@s@bold -
351   }{}
352 \DeclareFontShape{U}{MdSymbolD}{m}{n}{

```

```

353 < -\mdsy@s@medium> s * [\mdsy@scale] MdSymbolD-\mdsy@mweight@small
354 <\mdsy@s@medium- > s * [\mdsy@scale] MdSymbolD-\mdsy@mweight@normal
355 }{}
356 \DeclareFontShape{U}{MdSymbolD}{b}{n}{
357 < - \mdsy@s@bold> s * [\mdsy@scale] MdSymbolD-\mdsy@bweight@small
358 <\mdsy@s@bold - > s * [\mdsy@scale] MdSymbolD-\mdsy@bweight@normal
359 }{}
360 \DeclareFontShape{U}{MdSymbolE}{m}{n}{
361 < -\mdsy@s@medium> s * [\mdsy@scale] MdSymbolE-\mdsy@mweight@small
362 <\mdsy@s@medium- > s * [\mdsy@scale] MdSymbolE-\mdsy@mweight@normal
363 }{}
364 \DeclareFontShape{U}{MdSymbolE}{b}{n}{
365 < - \mdsy@s@bold> s * [\mdsy@scale] MdSymbolE-\mdsy@bweight@small
366 <\mdsy@s@bold - > s * [\mdsy@scale] MdSymbolE-\mdsy@bweight@normal
367 }{}
368 \DeclareFontShape{U}{MdSymbolF}{m}{n}{
369 < -\mdsy@s@medium> s * [\mdsy@scale] MdSymbolF-\mdsy@mweight@small
370 <\mdsy@s@medium- > s * [\mdsy@scale] MdSymbolF-\mdsy@mweight@normal
371 }{}
372 \DeclareFontShape{U}{MdSymbolF}{b}{n}{
373 < - \mdsy@s@bold> s * [\mdsy@scale] MdSymbolF-\mdsy@bweight@small
374 <\mdsy@s@bold - > s * [\mdsy@scale] MdSymbolF-\mdsy@bweight@normal
375 }{}
376
377 \newcommand\IfUndefSymbolFont[3]{\@ifundefined{sym#1}{#2}{#3}}
378 \newcommand{\mdsy@DeclareSymbolFont}[3]{%
379 \IfUndefSymbolFont{#1}{%
380 \DeclareSymbolFont{#1}{#2}{#3}{m}{n}
381 }{%
382 \ifmdsy@onlysansmath%
383 \SetSymbolFont{#1}{sans}{#2}{#3}{m}{n}%
384 \mdsy@if@tabular@math{\SetSymbolFont{#1}{sanstabular}{#2}{#3}{m}{n}}%
385 \else%
386 \SetSymbolFont{#1}{normal}{#2}{#3}{m}{n}%
387 \mdsy@if@tabular@math{\SetSymbolFont{#1}{tabular}{#2}{#3}{m}{n}}%
388 \fi%
389 }
390 \ifmdsy@onlysansmath%
391 \SetSymbolFont{#1}{sansbold}{#2}{#3}{b}{n}%
392 \mdsy@if@tabular@math{\SetSymbolFont{#1}{sansbolddtabular}{#2}{#3}{b}{n}}%
393 \else%
394 \SetSymbolFont{#1}{bold}{#2}{#3}{b}{n}%
395 \mdsy@if@tabular@math{\SetSymbolFont{#1}{bolddtabular}{#2}{#3}{b}{n}}%
396 \fi%
397 }

```

```

398
399 \mdsy@DeclareSymbolFont{symbols}{U}{MdSymbolA}
400 \mdsy@DeclareSymbolFont{relations}{U}{MdSymbolB}
401 \mdsy@DeclareSymbolFont{arrows}{U}{MdSymbolC}
402 \mdsy@DeclareSymbolFont{narrows}{U}{MdSymbolD}
403 \mdsy@DeclareSymbolFont{largesymbols}{U}{MdSymbolE}
404 \mdsy@DeclareSymbolFont{delimiters}{U}{MdSymbolF}
405

```

A command for taking math symbols from the text font.

```

406 \def\mdsy@bold{bold}
407 \newcommand*\mdsy@text[1]{%
408   \ifx\mdsy@bold\math@version
409     \text{\sffamily\bfseries#1}%
410   \else
411     \text{\sffamily\mdseries#1}%
412   \fi
413 }

```

MdSymbolA: binary operators and ordinary symbols

```

414 \mdsy@setslot{0}
415 \mdsy@DeclareSymbol{cdot}{symbols}{\mathbin}
416 \mdsy@DeclareAlias{cdotp}{symbols}{\mathpunct}
417 \mdsy@DeclareSymbol{hdotdot}{symbols}{\mathbin}
418 \mdsy@DeclareSymbol{vdotdot}{symbols}{\mathbin}
419 \mdsy@DeclareAlias{colon}{symbols}{\mathpunct}
420 \mdsy@DeclareAlias{mathcolon}{symbols}{\mathpunct}
421 \mdsy@DeclareAlias{mathratio}{symbols}{\mathrel}
422 \mdsy@DeclareSymbol{udotdot}{symbols}{\mathbin}
423 \mdsy@DeclareSymbol{ddotdot}{symbols}{\mathbin}
424 \mdsy@DeclareSymbol{hdots}{symbols}{\mathord}
425 \mdsy@DeclareAlias{@cdots}{symbols}{\mathinner}
426 \mdsy@DeclareAlias{cdots}{symbols}{\mathinner}
427 \mdsy@DeclareSymbol{@vdots}{symbols}{\mathord}
428 \mdsy@DeclareRobustCommand{vdots}{\ifmmode\vdots\else\hbox{$\vdots$}\fi}
429 \mdsy@DeclareSymbol{udots}{symbols}{\mathord}
430 \mdsy@DeclareAlias{adots}{symbols}{\mathord}
431 \mdsy@DeclareSymbol{ddots}{symbols}{\mathord}
432 \mdsy@DeclareSymbol{righttherefore}{symbols}{\mathord}
433 \mdsy@DeclareSymbol{uptherefore}{symbols}{\mathord}
434 \mdsy@DeclareAlias{therefore}{symbols}{\mathord}
435 \mdsy@DeclareSymbol{lefttherefore}{symbols}{\mathord}
436 \mdsy@DeclareSymbol{downtherefore}{symbols}{\mathord}
437 \mdsy@DeclareAlias{because}{symbols}{\mathord}
438 \mdsy@DeclareSymbol{sqaredots}{symbols}{\mathord}
439 \mdsy@DeclareAlias{Colon}{symbols}{\mathrel}
440 \mdsy@DeclareSymbol{minus}{symbols}{\mathbin}

```

```

441 \mdsy@DeclareSymbol{medslash}{symbols}{\mathbin}
442 \mdsy@DeclareAlias{smalldivslash}{symbols}{\mathbin}
443 \mdsy@DeclareSymbol{medbackslash}{symbols}{\mathbin}
444 \mdsy@DeclareAlias{smallsetminus}{symbols}{\mathbin}
445 \mdsy@DeclareSymbol{plus}{symbols}{\mathbin}
446 \mdsy@DeclareSymbol{times}{symbols}{\mathbin}
447 \mdsy@DeclareSymbol{dotminus}{symbols}{\mathbin}
448 \mdsy@DeclareSymbol{minusdot}{symbols}{\mathbin}
449 \mdsy@DeclareSymbol{div}{symbols}{\mathbin}
450 \mdsy@DeclareSymbol{minusfdots}{symbols}{\mathbin}
451 \mdsy@DeclareSymbol{minusrdots}{symbols}{\mathbin}
452 \mdsy@DeclareSymbol{dotsminusdots}{symbols}{\mathrel}
453 \mdsy@DeclareSymbol{pm}{symbols}{\mathbin}
454 \mdsy@DeclareSymbol{mp}{symbols}{\mathbin}
455 \mdsy@DeclareSymbol{dotplus}{symbols}{\mathbin}
456 \mdsy@DeclareSymbol{plusdot}{symbols}{\mathbin}
457 \mdsy@DeclareSymbol{dottimes}{symbols}{\mathbin}
458 \mdsy@DeclareSymbol{timesbar}{symbols}{\mathbin}
459 \mdsy@DeclareSymbol{divideontimes}{symbols}{\mathbin}
460 \mdsy@DeclareSymbol{neg}{symbols}{\mathord}
461 \mdsy@DeclareAlias{lnot}{symbols}{\mathord}
462 \mdsy@DeclareAlias{minushookdown}{symbols}{\mathbin}
463 \mdsy@DeclareSymbol{backneg}{symbols}{\mathord}
464 \mdsy@DeclareAlias{hookdownminus}{symbols}{\mathbin}
465 \mdsy@DeclareAlias{invneg}{symbols}{\mathord}
466 \mdsy@DeclareAlias{invnot}{symbols}{\mathord}
467 \mdsy@DeclareSymbol{intprod}{symbols}{\mathbin}
468 \mdsy@DeclareAlias{minushookup}{symbols}{\mathbin}
469 \mdsy@DeclareAlias{turnedneg}{symbols}{\mathord}
470 \mdsy@DeclareAlias{turnednot}{symbols}{\mathord}
471 \mdsy@DeclareSymbol{intprodr}{symbols}{\mathbin}
472 \mdsy@DeclareAlias{hookupminus}{symbols}{\mathbin}
473 \mdsy@DeclareAlias{turnedbackneg}{symbols}{\mathord}
474 \mdsy@DeclareSymbol{leftthreetimes}{symbols}{\mathbin}
475 \mdsy@DeclareSymbol{rightthreetimes}{symbols}{\mathbin}
476 \mdsy@DeclareSymbol{dtimes}{symbols}{\mathbin}
477 \mdsy@DeclareAlias{btimes}{symbols}{\mathbin}
478 \mdsy@DeclareSymbol{rtimes}{symbols}{\mathbin}
479 \mdsy@DeclareAlias{rJoin}{symbols}{\mathrel}
480 \mdsy@DeclareSymbol{utimes}{symbols}{\mathbin}
481 \mdsy@DeclareAlias{ttimes}{symbols}{\mathbin}
482 \mdsy@DeclareSymbol{ltimes}{symbols}{\mathbin}
483 \mdsy@DeclareAlias{lJoin}{symbols}{\mathrel}
484 \mdsy@DeclareSymbol{bowtie}{symbols}{\mathrel}
485 \mdsy@DeclareAlias{Join}{symbols}{\mathrel}

```

```

486 \mdsy@DeclareAlias{lrtimes}{symbols}{\mathbin}
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MdSymbolB: relations
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864 \mdsy@DeclareSymbol{leqslantdot}{relations}{\mathrel}
865 \mdsy@DeclareAlias{lesdot}{relations}{\mathrel}
866 \mdsy@DeclareSymbol{geqslantdot}{relations}{\mathrel}
867 \mdsy@DeclareAlias{gesdot}{relations}{\mathrel}
868 \mdsy@DeclareSymbol{eqslantless}{relations}{\mathrel}
869 \mdsy@DeclareSymbol{eqslantgtr}{relations}{\mathrel}
870 \mdsy@DeclareSymbol{curlyeqprec}{relations}{\mathrel}
871 \mdsy@DeclareSymbol{curlyeqsucc}{relations}{\mathrel}
872 \mdsy@DeclareSymbol{nequal}{relations}{\mathrel}
873 \mdsy@DeclareAlias{neq}{relations}{\mathrel}
874 \mdsy@DeclareAlias{ne}{relations}{\mathrel}
875 \mdsy@DeclareSymbol{nequiv}{relations}{\mathrel}
876 \mdsy@DeclareSymbol{nsim}{relations}{\mathrel}
877 \mdsy@DeclareSymbol{nbacksim}{relations}{\mathrel}
878 \mdsy@DeclareSymbol{napprox}{relations}{\mathrel}
879 \mdsy@DeclareSymbol{ntriplesim}{relations}{\mathrel}
880 \mdsy@DeclareAlias{napproxident}{relations}{\mathrel}
881 \mdsy@DeclareSymbol{nsimeq}{relations}{\mathrel}
882 \mdsy@DeclareAlias{nsime}{relations}{\mathrel}
883 \mdsy@DeclareSymbol{nbacksimeq}{relations}{\mathrel}
884 \mdsy@DeclareSymbol{neqsim}{relations}{\mathrel}
885 \mdsy@DeclareSymbol{ncong}{relations}{\mathrel}
886 \mdsy@DeclareSymbol{nbackcong}{relations}{\mathrel}
887 \mdsy@DeclareSymbol{napproxeq}{relations}{\mathrel}
888 \mdsy@DeclareSymbol{nbumpeq}{relations}{\mathrel}
889 \mdsy@DeclareSymbol{nbumpeq}{relations}{\mathrel}

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890 \mdsy@DeclareSymbol{nBumpeq}{relations}{\mathrel}
891 \mdsy@DeclareSymbol{ndoteq}{relations}{\mathrel}
892 \mdsy@DeclareSymbol{neqdot}{relations}{\mathrel}
893 \mdsy@DeclareSymbol{nDoteq}{relations}{\mathrel}
894 \mdsy@DeclareSymbol{nfallingdotseq}{relations}{\mathrel}
895 \mdsy@DeclareSymbol{nrisingdotseq}{relations}{\mathrel}
896 \mdsy@DeclareSymbol{nsmile}{relations}{\mathrel}
897 \mdsy@DeclareSymbol{nfrown}{relations}{\mathrel}
898 \mdsy@DeclareSymbol{nsmilefrown}{relations}{\mathrel}
899 \mdsy@DeclareAlias{nasymp}{relations}{\mathrel}
900 \mdsy@DeclareSymbol{nfrownsmile}{relations}{\mathrel}
901 \mdsy@DeclareAlias{nclosure}{relations}{\mathrel}
902 \mdsy@DeclareSymbol{nsmileeq}{relations}{\mathrel}
903 \mdsy@DeclareSymbol{nfrowneq}{relations}{\mathrel}
904 \mdsy@DeclareAlias{narceq}{relations}{\mathrel}
905 \mdsy@DeclareSymbol{neqcirc}{relations}{\mathrel}
906 \mdsy@DeclareSymbol{ncirceq}{relations}{\mathrel}
907 \mdsy@DeclareSymbol{nwedgeq}{relations}{\mathrel}
908 \mdsy@DeclareAlias{nhateq}{relations}{\mathrel}
909 \mdsy@DeclareSymbol{nveeeq}{relations}{\mathrel}
910 \mdsy@DeclareSymbol{nstareq}{relations}{\mathrel}
911 \mdsy@DeclareSymbol{ntriangleeq}{relations}{\mathrel}
912 \mdsy@DeclareSymbol{nin}{relations}{\mathrel}
913 \mdsy@DeclareAlias{notin}{relations}{\mathrel}
914 \mdsy@DeclareSymbol{nowns}{relations}{\mathrel}
915 \mdsy@DeclareAlias{nni}{relations}{\mathrel}
916 \mdsy@DeclareSymbol{nless}{relations}{\mathrel}
917 \mdsy@DeclareSymbol{ngtr}{relations}{\mathrel}
918 \mdsy@DeclareSymbol{nleq}{relations}{\mathrel}
919 \mdsy@DeclareSymbol{ngeq}{relations}{\mathrel}
920 \mdsy@DeclareSymbol{nleqslant}{relations}{\mathrel}
921 \mdsy@DeclareSymbol{ngeqslant}{relations}{\mathrel}
922 \mdsy@DeclareSymbol{nleqq}{relations}{\mathrel}
923 \mdsy@DeclareSymbol{ngeqq}{relations}{\mathrel}
924 \mdsy@DeclareSymbol{nlesssim}{relations}{\mathrel}
925 \mdsy@DeclareSymbol{ngtrsim}{relations}{\mathrel}
926 \mdsy@DeclareSymbol{nlessapprox}{relations}{\mathrel}
927 \mdsy@DeclareSymbol{ngtrapprox}{relations}{\mathrel}
928 \mdsy@DeclareSymbol{nlessgtr}{relations}{\mathrel}
929 \mdsy@DeclareSymbol{ngtrless}{relations}{\mathrel}
930 \mdsy@DeclareSymbol{nlesseqgtr}{relations}{\mathrel}
931 \mdsy@DeclareSymbol{ngtreqlless}{relations}{\mathrel}
932 \mdsy@DeclareSymbol{nlesseqqgtr}{relations}{\mathrel}
933 \mdsy@DeclareSymbol{ngtreqqless}{relations}{\mathrel}
934 \mdsy@DeclareSymbol{nlesseqslantgtr}{relations}{\mathrel}

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935 \mdsy@DeclareAlias{nlesg}{relations}{\mathrel}
936 \mdsy@DeclareAlias{nlesseqgtrslant}{relations}{\mathrel}
937 \mdsy@DeclareSymbol{ngtreqlslantless}{relations}{\mathrel}
938 \mdsy@DeclareAlias{ngesl}{relations}{\mathrel}
939 \mdsy@DeclareAlias{ngtreqllessslant}{relations}{\mathrel}
940 \mdsy@DeclareSymbol{nll}{relations}{\mathrel}
941 \mdsy@DeclareSymbol{ngg}{relations}{\mathrel}
942 \mdsy@DeclareSymbol{nlll}{relations}{\mathrel}
943 \mdsy@DeclareSymbol{nggg}{relations}{\mathrel}
944 \mdsy@DeclareSymbol{nlessclosed}{relations}{\mathrel}
945 \mdsy@DeclareAlias{ntriangleleft}{relations}{\mathrel}
946 \mdsy@DeclareSymbol{ngtrclosed}{relations}{\mathrel}
947 \mdsy@DeclareAlias{ntriangleright}{relations}{\mathrel}
948 \mdsy@DeclareSymbol{nleqclosed}{relations}{\mathrel}
949 \mdsy@DeclareAlias{ntrianglelefteq}{relations}{\mathrel}
950 \mdsy@DeclareSymbol{ngeqclosed}{relations}{\mathrel}
951 \mdsy@DeclareAlias{ntrianglerighteq}{relations}{\mathrel}
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953 \mdsy@DeclareAlias{nltcc}{relations}{\mathrel}
954 \mdsy@DeclareSymbol{ngtrcc}{relations}{\mathrel}
955 \mdsy@DeclareAlias{ngtcc}{relations}{\mathrel}
956 \mdsy@DeclareSymbol{nleqslcc}{relations}{\mathrel}
957 \mdsy@DeclareAlias{nlescc}{relations}{\mathrel}
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959 \mdsy@DeclareAlias{ngescc}{relations}{\mathrel}
960 \mdsy@DeclareSymbol{nsqsubset}{relations}{\mathrel}
961 \mdsy@DeclareSymbol{nsqsupset}{relations}{\mathrel}
962 \mdsy@DeclareSymbol{nsqsubseteq}{relations}{\mathrel}
963 \mdsy@DeclareSymbol{nsqsupseteq}{relations}{\mathrel}
964 \mdsy@DeclareSymbol{nsqsubseteqq}{relations}{\mathrel}
965 \mdsy@DeclareSymbol{nsqsupseteqq}{relations}{\mathrel}
966 \mdsy@DeclareSymbol{nSqsubset}{relations}{\mathrel}
967 \mdsy@DeclareSymbol{nSqsupset}{relations}{\mathrel}
968 \mdsy@DeclareSymbol{nsubset}{relations}{\mathrel}
969 \mdsy@DeclareSymbol{nsubseteq}{relations}{\mathrel}
970 \mdsy@DeclareSymbol{nsubseteq}{relations}{\mathrel}
971 \mdsy@DeclareSymbol{nsubseteqq}{relations}{\mathrel}
972 \mdsy@DeclareSymbol{nsubseteqq}{relations}{\mathrel}
973 \mdsy@DeclareSymbol{nsubseteqq}{relations}{\mathrel}
974 \mdsy@DeclareSymbol{nSubset}{relations}{\mathrel}
975 \mdsy@DeclareSymbol{nSupset}{relations}{\mathrel}
976 \mdsy@DeclareSymbol{nprec}{relations}{\mathrel}
977 \mdsy@DeclareSymbol{nsucc}{relations}{\mathrel}
978 \mdsy@DeclareSymbol{npreceq}{relations}{\mathrel}
979 \mdsy@DeclareSymbol{nsucceq}{relations}{\mathrel}

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980 \mdsy@DeclareSymbol{npreccurlyeq}{relations}{\mathrel}
981 \mdsy@DeclareSymbol{nsucccurlyeq}{relations}{\mathrel}
982 \mdsy@DeclareSymbol{npreceqq}{relations}{\mathrel}
983 \mdsy@DeclareSymbol{nsucceqq}{relations}{\mathrel}
984 \mdsy@DeclareSymbol{nprecsim}{relations}{\mathrel}
985 \mdsy@DeclareSymbol{nsuccsim}{relations}{\mathrel}
986 \mdsy@DeclareSymbol{nprecapprox}{relations}{\mathrel}
987 \mdsy@DeclareSymbol{nsuccapprox}{relations}{\mathrel}
988 \mdsy@DeclareSymbol{nlessdot}{relations}{\mathrel}
989 \mdsy@DeclareSymbol{ngtrdot}{relations}{\mathrel}
990 \mdsy@DeclareSymbol{nleqdot}{relations}{\mathrel}
991 \mdsy@DeclareSymbol{ngeqdot}{relations}{\mathrel}
992 \mdsy@DeclareSymbol{nleqslantdot}{relations}{\mathrel}
993 \mdsy@DeclareAlias{nlesdot}{relations}{\mathrel}
994 \mdsy@DeclareSymbol{ngeqslantdot}{relations}{\mathrel}
995 \mdsy@DeclareAlias{ngesdot}{relations}{\mathrel}
996 \mdsy@DeclareSymbol{neqslantless}{relations}{\mathrel}
997 \mdsy@DeclareSymbol{neqslantgtr}{relations}{\mathrel}
998 \mdsy@DeclareSymbol{ncurlyeqprec}{relations}{\mathrel}
999 \mdsy@DeclareSymbol{ncurlyeqsucc}{relations}{\mathrel}
1000 \mdsy@DeclareSymbol{simneqq}{relations}{\mathrel}
1001 \mdsy@DeclareSymbol{backsimneqq}{relations}{\mathrel}
1002 \mdsy@DeclareSymbol{lneq}{relations}{\mathrel}
1003 \mdsy@DeclareSymbol{gneq}{relations}{\mathrel}
1004 \mdsy@DeclareSymbol{lneqq}{relations}{\mathrel}
1005 \mdsy@DeclareAlias{lvertneqq}{relations}{\mathrel}
1006 \mdsy@DeclareSymbol{gneqq}{relations}{\mathrel}
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1008 \mdsy@DeclareSymbol{lnsim}{relations}{\mathrel}
1009 \mdsy@DeclareSymbol{gnsim}{relations}{\mathrel}
1010 \mdsy@DeclareSymbol{lnapprox}{relations}{\mathrel}
1011 \mdsy@DeclareSymbol{gnapprox}{relations}{\mathrel}
1012 \mdsy@DeclareSymbol{sqsubsetneq}{relations}{\mathrel}
1013 \mdsy@DeclareSymbol{sqsupsetneq}{relations}{\mathrel}
1014 \mdsy@DeclareSymbol{sqsubsetneqq}{relations}{\mathrel}
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1016 \mdsy@DeclareSymbol{subsetneq}{relations}{\mathrel}
1017 \mdsy@DeclareAlias{varsubsetneq}{relations}{\mathrel}
1018 \mdsy@DeclareSymbol{supsetneq}{relations}{\mathrel}
1019 \mdsy@DeclareAlias{varsupsetneq}{relations}{\mathrel}
1020 \mdsy@DeclareSymbol{subsetneqq}{relations}{\mathrel}
1021 \mdsy@DeclareAlias{varsubsetneqq}{relations}{\mathrel}
1022 \mdsy@DeclareSymbol{supsetneqq}{relations}{\mathrel}
1023 \mdsy@DeclareAlias{varsupsetneqq}{relations}{\mathrel}
1024 \mdsy@DeclareSymbol{precneq}{relations}{\mathrel}

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1025 \mdsy@DeclareSymbol{succneq}{relations}{\mathrel}
1026 \mdsy@DeclareSymbol{precneqq}{relations}{\mathrel}
1027 \mdsy@DeclareSymbol{succneqq}{relations}{\mathrel}
1028 \mdsy@DeclareSymbol{precnsim}{relations}{\mathrel}
1029 \mdsy@DeclareSymbol{succnsim}{relations}{\mathrel}
1030 \mdsy@DeclareSymbol{precnapprox}{relations}{\mathrel}
1031 \mdsy@DeclareSymbol{succnapprox}{relations}{\mathrel}

MdSymbolC: arrows and turnstile symbols
1032 \mdsy@setslot{0}
1033 \mdsy@DeclareSymbol{rightarrow}{arrows}{\mathrel}
1034 \mdsy@DeclareAlias{to}{arrows}{\mathrel}
1035 % \mdsy@DeclareSymbol{uparrow}{arrows}{\mathrel}
1036 \mdsy@nextslot %uparrow defined below
1037 \mdsy@DeclareSymbol{leftarrow}{arrows}{\mathrel}
1038 \mdsy@DeclareAlias{gets}{arrows}{\mathrel}
1039 % \mdsy@DeclareSymbol{downarrow}{arrows}{\mathrel}
1040 \mdsy@nextslot %downarrow defined below
1041 \mdsy@DeclareSymbol{nearrow}{arrows}{\mathrel}
1042 \mdsy@DeclareSymbol{nwarrow}{arrows}{\mathrel}
1043 \mdsy@DeclareSymbol{swarrow}{arrows}{\mathrel}
1044 \mdsy@DeclareSymbol{searrow}{arrows}{\mathrel}
1045 \mdsy@DeclareSymbol{Rightarrow}{arrows}{\mathrel}
1046 % \mdsy@DeclareSymbol{Uparrow}{arrows}{\mathrel}
1047 \mdsy@nextslot %Uparrow defined below
1048 \mdsy@DeclareSymbol{Leftarrow}{arrows}{\mathrel}
1049 % \mdsy@DeclareSymbol{Downarrow}{arrows}{\mathrel}
1050 \mdsy@nextslot %Downarrow defined below
1051 \mdsy@DeclareSymbol{Nearrow}{arrows}{\mathrel}
1052 \mdsy@DeclareSymbol{Nwarrow}{arrows}{\mathrel}
1053 \mdsy@DeclareSymbol{Swarrow}{arrows}{\mathrel}
1054 \mdsy@DeclareSymbol{Searrow}{arrows}{\mathrel}
1055 \mdsy@DeclareSymbol{leftrightharrow}{arrows}{\mathrel}
1056 % \mdsy@DeclareSymbol{updownarrow}{arrows}{\mathrel}
1057 \mdsy@nextslot %updownarrow defined below
1058 \mdsy@DeclareSymbol{neswarrow}{arrows}{\mathrel}
1059 \mdsy@DeclareSymbol{nwsearrow}{arrows}{\mathrel}
1060 \mdsy@DeclareSymbol{Leftrightharrow}{arrows}{\mathrel}
1061 % \mdsy@DeclareSymbol{Updownarrow}{arrows}{\mathrel}
1062 \mdsy@nextslot %Updownarrow defined below
1063 \mdsy@DeclareSymbol{Neswarrow}{arrows}{\mathrel}
1064 \mdsy@DeclareSymbol{Nwsearrow}{arrows}{\mathrel}
1065 \mdsy@DeclareSymbol{twoheadrightarrow}{arrows}{\mathrel}
1066 \mdsy@DeclareSymbol{twoheaduparrow}{arrows}{\mathrel}
1067 \mdsy@DeclareSymbol{twoheadleftarrow}{arrows}{\mathrel}
1068 \mdsy@DeclareSymbol{twoheaddownarrow}{arrows}{\mathrel}

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1069 \mdsy@DeclareSymbol{twoheadnearrow}{arrows}{\mathrel}
1070 \mdsy@DeclareSymbol{twoheadnwarrow}{arrows}{\mathrel}
1071 \mdsy@DeclareSymbol{twoheadswarrow}{arrows}{\mathrel}
1072 \mdsy@DeclareSymbol{twoheadsearrow}{arrows}{\mathrel}
1073 \mdsy@DeclareSymbol{rightarrowtail}{arrows}{\mathrel}
1074 \mdsy@DeclareSymbol{uparrowtail}{arrows}{\mathrel}
1075 \mdsy@DeclareSymbol{leftarrowtail}{arrows}{\mathrel}
1076 \mdsy@DeclareSymbol{downarrowtail}{arrows}{\mathrel}
1077 \mdsy@DeclareSymbol{nearrowtail}{arrows}{\mathrel}
1078 \mdsy@DeclareSymbol{nwarrowtail}{arrows}{\mathrel}
1079 \mdsy@DeclareSymbol{swarrowtail}{arrows}{\mathrel}
1080 \mdsy@DeclareSymbol{searrowtail}{arrows}{\mathrel}
1081 \mdsy@DeclareSymbol{rightmapsto}{arrows}{\mathrel}
1082 \mdsy@DeclareAlias{mapsto}{arrows}{\mathrel}
1083 \mdsy@DeclareSymbol{upmapsto}{arrows}{\mathrel}
1084 \mdsy@DeclareAlias{mapsup}{arrows}{\mathrel}
1085 \mdsy@DeclareSymbol{leftmapsto}{arrows}{\mathrel}
1086 \mdsy@DeclareAlias{mapsfrom}{arrows}{\mathrel}
1087 \mdsy@DeclareSymbol{downmapsto}{arrows}{\mathrel}
1088 \mdsy@DeclareAlias{mapsdown}{arrows}{\mathrel}
1089 \mdsy@DeclareSymbol{Rightmapsto}{arrows}{\mathrel}
1090 \mdsy@DeclareAlias{Mapsto}{arrows}{\mathrel}
1091 \mdsy@DeclareSymbol{Upmapsto}{arrows}{\mathrel}
1092 \mdsy@DeclareAlias{Mapsup}{arrows}{\mathrel}
1093 \mdsy@DeclareSymbol{Leftmapsto}{arrows}{\mathrel}
1094 \mdsy@DeclareAlias{Mapsfrom}{arrows}{\mathrel}
1095 \mdsy@DeclareSymbol{Downmapsto}{arrows}{\mathrel}
1096 \mdsy@DeclareAlias{Mapsdown}{arrows}{\mathrel}
1097 \mdsy@DeclareSymbol{hookrightarrow}{arrows}{\mathrel}
1098 \mdsy@DeclareAlias{lhookrightarrow}{arrows}{\mathrel}
1099 \mdsy@DeclareSymbol{hookuparrow}{arrows}{\mathrel}
1100 \mdsy@DeclareAlias{lhookuparrow}{arrows}{\mathrel}
1101 \mdsy@DeclareSymbol{varhookleftarrow}{arrows}{\mathrel}
1102 \mdsy@DeclareAlias{lhookleftarrow}{arrows}{\mathrel}
1103 \mdsy@DeclareSymbol{varhookdownarrow}{arrows}{\mathrel}
1104 \mdsy@DeclareAlias{lhookdownarrow}{arrows}{\mathrel}
1105 \mdsy@DeclareSymbol{varhooknearrow}{arrows}{\mathrel}
1106 \mdsy@DeclareAlias{lhooknearrow}{arrows}{\mathrel}
1107 \mdsy@DeclareSymbol{hooknwarrow}{arrows}{\mathrel}
1108 \mdsy@DeclareAlias{hknwarrow}{arrows}{\mathrel}
1109 \mdsy@DeclareAlias{lhooknwarrow}{arrows}{\mathrel}
1110 \mdsy@DeclareSymbol{varhookswarrow}{arrows}{\mathrel}
1111 \mdsy@DeclareAlias{lhookswarrow}{arrows}{\mathrel}
1112 \mdsy@DeclareSymbol{hooksearrow}{arrows}{\mathrel}
1113 \mdsy@DeclareAlias{hksearrow}{arrows}{\mathrel}

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1114 \mdsy@DeclareAlias{lhooksearrow}{arrows}{\mathrel}
1115 \mdsy@DeclareSymbol{varhookrightarrow}{arrows}{\mathrel}
1116 \mdsy@DeclareAlias{rhookrightarrow}{arrows}{\mathrel}
1117 \mdsy@DeclareSymbol{varhookuparrow}{arrows}{\mathrel}
1118 \mdsy@DeclareAlias{rhookuparrow}{arrows}{\mathrel}
1119 \mdsy@DeclareSymbol{hookleftarrow}{arrows}{\mathrel}
1120 \mdsy@DeclareAlias{rhookleftarrow}{arrows}{\mathrel}
1121 \mdsy@DeclareSymbol{hookdownarrow}{arrows}{\mathrel}
1122 \mdsy@DeclareAlias{rhookdownarrow}{arrows}{\mathrel}
1123 \mdsy@DeclareSymbol{hooknearrow}{arrows}{\mathrel}
1124 \mdsy@DeclareAlias{hknearrow}{arrows}{\mathrel}
1125 \mdsy@DeclareAlias{rhooknearrow}{arrows}{\mathrel}
1126 \mdsy@DeclareSymbol{varhooknwarrow}{arrows}{\mathrel}
1127 \mdsy@DeclareAlias{rhooknwarrow}{arrows}{\mathrel}
1128 \mdsy@DeclareSymbol{hookswarrow}{arrows}{\mathrel}
1129 \mdsy@DeclareAlias{hkswarrow}{arrows}{\mathrel}
1130 \mdsy@DeclareAlias{rhookswarrow}{arrows}{\mathrel}
1131 \mdsy@DeclareSymbol{varhooksearrow}{arrows}{\mathrel}
1132 \mdsy@DeclareAlias{rhooksearrow}{arrows}{\mathrel}
1133 \mdsy@DeclareSymbol{rightharpoonup}{arrows}{\mathrel}
1134 \mdsy@DeclareSymbol{upharpoonleft}{arrows}{\mathrel}
1135 \mdsy@DeclareSymbol{leftharpoondown}{arrows}{\mathrel}
1136 \mdsy@DeclareSymbol{downharpoonright}{arrows}{\mathrel}
1137 \mdsy@DeclareSymbol{neharpoonnw}{arrows}{\mathrel}
1138 \mdsy@DeclareSymbol{nwharpoonsw}{arrows}{\mathrel}
1139 \mdsy@DeclareSymbol{swharpoonse}{arrows}{\mathrel}
1140 \mdsy@DeclareSymbol{seharpoonne}{arrows}{\mathrel}
1141 \mdsy@DeclareSymbol{rightharpoondown}{arrows}{\mathrel}
1142 \mdsy@DeclareSymbol{upharpoonright}{arrows}{\mathrel}
1143 \mdsy@DeclareAlias{restriction}{arrows}{\mathrel}
1144 \mdsy@DeclareSymbol{leftharpoonup}{arrows}{\mathrel}
1145 \mdsy@DeclareSymbol{downharpoonleft}{arrows}{\mathrel}
1146 \mdsy@DeclareSymbol{neharpoonse}{arrows}{\mathrel}
1147 \mdsy@DeclareSymbol{nwharpoonne}{arrows}{\mathrel}
1148 \mdsy@DeclareSymbol{swharpoonnw}{arrows}{\mathrel}
1149 \mdsy@DeclareSymbol{seharpoonsw}{arrows}{\mathrel}
1150 \mdsy@DeclareSymbol{leftrightharpoonupdown}{arrows}{\mathrel}
1151 \mdsy@DeclareSymbol{updownharpoonleftright}{arrows}{\mathrel}
1152 \mdsy@DeclareSymbol{neswharpoonnwse}{arrows}{\mathrel}
1153 \mdsy@DeclareSymbol{nwseharpoonesw}{arrows}{\mathrel}
1154 \mdsy@DeclareSymbol{leftrightharpoondownup}{arrows}{\mathrel}
1155 \mdsy@DeclareSymbol{updownharpoonrightleft}{arrows}{\mathrel}
1156 \mdsy@DeclareSymbol{neswharpoonsenw}{arrows}{\mathrel}
1157 \mdsy@DeclareSymbol{nwseharpoonswne}{arrows}{\mathrel}
1158 \mdsy@DeclareSymbol{rightleftharpoons}{arrows}{\mathrel}

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1159 \mdsy@DeclareSymbol{updownharpoons}{arrows}{\mathrel}
1160 \mdsy@DeclareAlias{updownharpoonsleftright}{arrows}{\mathrel}
1161 \mdsy@DeclareSymbol{neswharpoons}{arrows}{\mathrel}
1162 \mdsy@DeclareSymbol{senwharpoons}{arrows}{\mathrel}
1163 \mdsy@DeclareSymbol{leftrightharpoons}{arrows}{\mathrel}
1164 \mdsy@DeclareSymbol{downupharpoons}{arrows}{\mathrel}
1165 \mdsy@DeclareAlias{downupharpoonsleftright}{arrows}{\mathrel}
1166 \mdsy@DeclareSymbol{swneharpoons}{arrows}{\mathrel}
1167 \mdsy@DeclareSymbol{nwseharpoons}{arrows}{\mathrel}
1168 \mdsy@DeclareSymbol{rightbkarrow}{arrows}{\mathrel}
1169 \mdsy@DeclareAlias{dashedarrow}{arrows}{\mathrel}
1170 \mdsy@DeclareAlias{dashedrightarrow}{arrows}{\mathrel}
1171 \mdsy@DeclareSymbol{upbkarrow}{arrows}{\mathrel}
1172 \mdsy@DeclareSymbol{leftbkarrow}{arrows}{\mathrel}
1173 \mdsy@DeclareAlias{dashleftarrow}{arrows}{\mathrel}
1174 \mdsy@DeclareSymbol{downbkarrow}{arrows}{\mathrel}
1175 \mdsy@DeclareSymbol{nebkarrow}{arrows}{\mathrel}
1176 \mdsy@DeclareSymbol{nwbkarrow}{arrows}{\mathrel}
1177 \mdsy@DeclareSymbol{swbkarrow}{arrows}{\mathrel}
1178 \mdsy@DeclareSymbol{sebkarrow}{arrows}{\mathrel}
1179 \mdsy@DeclareSymbol{rightspoon}{arrows}{\mathrel}
1180 \mdsy@DeclareAlias{multimap}{arrows}{\mathrel}
1181 \mdsy@DeclareSymbol{upspoon}{arrows}{\mathrel}
1182 \mdsy@DeclareAlias{cirmid}{arrows}{\mathrel}
1183 \mdsy@DeclareSymbol{leftspoon}{arrows}{\mathrel}
1184 \mdsy@DeclareAlias{multimapinv}{arrows}{\mathrel}
1185 \mdsy@DeclareSymbol{downspoon}{arrows}{\mathrel}
1186 \mdsy@DeclareAlias{midcir}{arrows}{\mathrel}
1187 \mdsy@DeclareSymbol{rightblackspoon}{arrows}{\mathrel}
1188 \mdsy@DeclareSymbol{upblackspoon}{arrows}{\mathrel}
1189 \mdsy@DeclareSymbol{leftblackspoon}{arrows}{\mathrel}
1190 \mdsy@DeclareSymbol{downblackspoon}{arrows}{\mathrel}
1191 \mdsy@DeclareSymbol{leftrightspoon}{arrows}{\mathrel}
1192 \mdsy@DeclareAlias{dualmap}{arrows}{\mathrel}
1193 \mdsy@DeclareSymbol{leftrightblackspoon}{arrows}{\mathrel}
1194 \mdsy@DeclareSymbol{blackwhitespoon}{arrows}{\mathrel}
1195 \mdsy@DeclareAlias{imageof}{arrows}{\mathrel}
1196 \mdsy@DeclareSymbol{whiteblackspoon}{arrows}{\mathrel}
1197 \mdsy@DeclareAlias{origof}{arrows}{\mathrel}
1198 \mdsy@DeclareSymbol{rightpitchfork}{arrows}{\mathrel}
1199 \mdsy@DeclareSymbol{uppitchfork}{arrows}{\mathrel}
1200 \mdsy@DeclareAlias{pitchfork}{arrows}{\mathrel}
1201 \mdsy@DeclareSymbol{leftpitchfork}{arrows}{\mathrel}
1202 \mdsy@DeclareSymbol{downpitchfork}{arrows}{\mathrel}
1203 \mdsy@DeclareSymbol{rightrightarrow}{arrows}{\mathrel}

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1204 \mdsy@DeclareSymbol{upuparrows}{arrows}{\mathrel}
1205 \mdsy@DeclareSymbol{leftleftarrows}{arrows}{\mathrel}
1206 \mdsy@DeclareSymbol{downdownarrows}{arrows}{\mathrel}
1207 \mdsy@DeclareSymbol{nene arrows}{arrows}{\mathrel}
1208 \mdsy@DeclareSymbol{nnwnarrows}{arrows}{\mathrel}
1209 \mdsy@DeclareSymbol{swswarrows}{arrows}{\mathrel}
1210 \mdsy@DeclareSymbol{sese arrows}{arrows}{\mathrel}
1211 \mdsy@DeclareSymbol{rightleftarrows}{arrows}{\mathrel}
1212 \mdsy@DeclareSymbol{updownarrows}{arrows}{\mathrel}
1213 \mdsy@DeclareSymbol{neswarrows}{arrows}{\mathrel}
1214 \mdsy@DeclareSymbol{nwse arrows}{arrows}{\mathrel}
1215 \mdsy@DeclareSymbol{leftrigharrows}{arrows}{\mathrel}
1216 \mdsy@DeclareSymbol{downuparrows}{arrows}{\mathrel}
1217 \mdsy@DeclareSymbol{swnearrows}{arrows}{\mathrel}
1218 \mdsy@DeclareSymbol{senwarrows}{arrows}{\mathrel}
1219 \mdsy@DeclareSymbol{rightwvearrow}{arrows}{\mathrel}
1220 \mdsy@DeclareAlias{leadsto}{arrows}{\mathrel}
1221 \mdsy@DeclareAlias{rightsquigarrow}{arrows}{\mathrel}
1222 \mdsy@DeclareAlias{rightcurvedarrow}{arrows}{\mathrel}
1223 \mdsy@DeclareAlias{rightlsquigarrow}{arrows}{\mathrel}
1224 \mdsy@DeclareSymbol{varupwvearrow}{arrows}{\mathrel}
1225 \mdsy@DeclareAlias{uplsquigarrow}{arrows}{\mathrel}
1226 \mdsy@DeclareSymbol{varleftwvearrow}{arrows}{\mathrel}
1227 \mdsy@DeclareAlias{leftlsquigarrow}{arrows}{\mathrel}
1228 \mdsy@DeclareSymbol{downwvearrow}{arrows}{\mathrel}
1229 \mdsy@DeclareAlias{downlsquigarrow}{arrows}{\mathrel}
1230 \mdsy@DeclareSymbol{varrightwvearrow}{arrows}{\mathrel}
1231 \mdsy@DeclareAlias{rightrsquigarrow}{arrows}{\mathrel}
1232 \mdsy@DeclareSymbol{upwvearrow}{arrows}{\mathrel}
1233 \mdsy@DeclareAlias{uprsquigarrow}{arrows}{\mathrel}
1234 \mdsy@DeclareSymbol{leftwvearrow}{arrows}{\mathrel}
1235 \mdsy@DeclareAlias{leftsquigarrow}{arrows}{\mathrel}
1236 \mdsy@DeclareAlias{leftcurvedarrow}{arrows}{\mathrel}
1237 \mdsy@DeclareAlias{leftrsquigarrow}{arrows}{\mathrel}
1238 \mdsy@DeclareSymbol{vardownwvearrow}{arrows}{\mathrel}
1239 \mdsy@DeclareAlias{downrsquigarrow}{arrows}{\mathrel}
1240 \mdsy@DeclareSymbol{leftrighwvearrow}{arrows}{\mathrel}
1241 \mdsy@DeclareAlias{leftrightsquigarrow}{arrows}{\mathrel}
1242 \mdsy@DeclareSymbol{updownwvearrow}{arrows}{\mathrel}
1243 \mdsy@DeclareAlias{updownsquigarrow}{arrows}{\mathrel}
1244 \mdsy@DeclareSymbol{varleftrighwvearrow}{arrows}{\mathrel}
1245 \mdsy@DeclareAlias{rightleftsquigarrow}{arrows}{\mathrel}
1246 \mdsy@DeclareSymbol{varupdownwvearrow}{arrows}{\mathrel}
1247 \mdsy@DeclareAlias{downupsquigarrow}{arrows}{\mathrel}
1248 \mdsy@DeclareSymbol{cwoverarcarrow}{arrows}{\mathrel}

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1249 \mdsy@DeclareAlias{curvearrowright}{arrows}{\mathrel}
1250 \mdsy@DeclareAlias{rightlcurvearrow}{arrows}{\mathrel}
1251 \mdsy@DeclareSymbol{cwleftarccarrow}{arrows}{\mathrel}
1252 \mdsy@DeclareAlias{uplcurvearrow}{arrows}{\mathrel}
1253 \mdsy@DeclareSymbol{cwunderarccarrow}{arrows}{\mathrel}
1254 \mdsy@DeclareAlias{leftlcurvearrow}{arrows}{\mathrel}
1255 \mdsy@DeclareSymbol{cwrightarccarrow}{arrows}{\mathrel}
1256 \mdsy@DeclareAlias{downlcurvearrow}{arrows}{\mathrel}
1257 \mdsy@DeclareSymbol{cwnwarccarrow}{arrows}{\mathrel}
1258 \mdsy@DeclareAlias{rightupcurvedarrow}{arrows}{\mathrel}
1259 \mdsy@DeclareAlias{nelcurvearrow}{arrows}{\mathrel}
1260 \mdsy@DeclareSymbol{cswwarccarrow}{arrows}{\mathrel}
1261 \mdsy@DeclareAlias{upleftcurvedarrow}{arrows}{\mathrel}
1262 \mdsy@DeclareAlias{nwlccurvearrow}{arrows}{\mathrel}
1263 \mdsy@DeclareSymbol{cwsearccarrow}{arrows}{\mathrel}
1264 \mdsy@DeclareAlias{leftdowncurvedarrow}{arrows}{\mathrel}
1265 \mdsy@DeclareAlias{swlccurvearrow}{arrows}{\mathrel}
1266 \mdsy@DeclareSymbol{cwnearccarrow}{arrows}{\mathrel}
1267 \mdsy@DeclareAlias{downrightcurvedarrow}{arrows}{\mathrel}
1268 \mdsy@DeclareAlias{selcurvearrow}{arrows}{\mathrel}
1269 \mdsy@DeclareSymbol{acwunderarccarrow}{arrows}{\mathrel}
1270 \mdsy@DeclareAlias{rightrcurvearrow}{arrows}{\mathrel}
1271 \mdsy@DeclareSymbol{acwrightarccarrow}{arrows}{\mathrel}
1272 \mdsy@DeclareAlias{uprccurvearrow}{arrows}{\mathrel}
1273 \mdsy@DeclareSymbol{acwoverarccarrow}{arrows}{\mathrel}
1274 \mdsy@DeclareAlias{curvearrowleft}{arrows}{\mathrel}
1275 \mdsy@DeclareAlias{leftrcurvearrow}{arrows}{\mathrel}
1276 \mdsy@DeclareSymbol{acwleftarccarrow}{arrows}{\mathrel}
1277 \mdsy@DeclareAlias{downrccurvearrow}{arrows}{\mathrel}
1278 \mdsy@DeclareSymbol{acwsearccarrow}{arrows}{\mathrel}
1279 \mdsy@DeclareAlias{uprightcurvearrow}{arrows}{\mathrel}
1280 \mdsy@DeclareAlias{nercurvearrow}{arrows}{\mathrel}
1281 \mdsy@DeclareSymbol{acwnearccarrow}{arrows}{\mathrel}
1282 \mdsy@DeclareAlias{leftupcurvedarrow}{arrows}{\mathrel}
1283 \mdsy@DeclareAlias{nwrccurvearrow}{arrows}{\mathrel}
1284 \mdsy@DeclareSymbol{acwnwarccarrow}{arrows}{\mathrel}
1285 \mdsy@DeclareAlias{downleftcurvedarrow}{arrows}{\mathrel}
1286 \mdsy@DeclareAlias{swrccurvearrow}{arrows}{\mathrel}
1287 \mdsy@DeclareSymbol{acwswarccarrow}{arrows}{\mathrel}
1288 \mdsy@DeclareAlias{rightdowncurvedarrow}{arrows}{\mathrel}
1289 \mdsy@DeclareAlias{sercurvearrow}{arrows}{\mathrel}
1290 \mdsy@DeclareSymbol{bdoverarccarrow}{arrows}{\mathrel}
1291 \mdsy@DeclareAlias{leftrightcurvearrow}{arrows}{\mathrel}
1292 \mdsy@DeclareSymbol{bdleftarccarrow}{arrows}{\mathrel}
1293 \mdsy@DeclareAlias{updowncurvearrow}{arrows}{\mathrel}

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1294 \mdsy@DeclareSymbol{bdunderarcarrow}{arrows}{\mathrel}
1295 \mdsy@DeclareAlias{rightleftcurvedarrow}{arrows}{\mathrel}
1296 \mdsy@DeclareSymbol{bdrigharcarrow}{arrows}{\mathrel}
1297 \mdsy@DeclareAlias{downupcurvedarrow}{arrows}{\mathrel}
1298 \mdsy@DeclareSymbol{bdnwarcarrow}{arrows}{\mathrel}
1299 \mdsy@DeclareAlias{neswcurvedarrow}{arrows}{\mathrel}
1300 \mdsy@DeclareSymbol{bdswarcarrow}{arrows}{\mathrel}
1301 \mdsy@DeclareAlias{nwsecurvedarrow}{arrows}{\mathrel}
1302 \mdsy@DeclareSymbol{bdsearcarrow}{arrows}{\mathrel}
1303 \mdsy@DeclareAlias{swnecurvedarrow}{arrows}{\mathrel}
1304 \mdsy@DeclareSymbol{bdnearcarrow}{arrows}{\mathrel}
1305 \mdsy@DeclareAlias{senwcurvedarrow}{arrows}{\mathrel}
1306 \mdsy@DeclareSymbol{leftfootline}{arrows}{\mathrel}
1307 \mdsy@DeclareSymbol{rightfootline}{arrows}{\mathrel}
1308 \mdsy@DeclareSymbol{acwcirculararrowup}{arrows}{\mathrel}
1309 \mdsy@DeclareSymbol{acwcirculararrowleft}{arrows}{\mathrel}
1310 \mdsy@DeclareAlias{circulararrowleft}{arrows}{\mathrel}
1311 \mdsy@DeclareAlias{acwopencirculararrow}{arrows}{\mathrel}
1312 \mdsy@DeclareSymbol{acwcirculararrowdown}{arrows}{\mathrel}
1313 \mdsy@DeclareAlias{acwgapcirculararrow}{arrows}{\mathrel}
1314 \mdsy@DeclareSymbol{acwcirculararrowright}{arrows}{\mathrel}
1315 \mdsy@DeclareSymbol{cwcirculararrowdown}{arrows}{\mathrel}
1316 \mdsy@DeclareAlias{cwgapcirculararrow}{arrows}{\mathrel}
1317 \mdsy@DeclareSymbol{cwcirculararrowright}{arrows}{\mathrel}
1318 \mdsy@DeclareAlias{circulararrowright}{arrows}{\mathrel}
1319 \mdsy@DeclareAlias{cwopencirculararrow}{arrows}{\mathrel}
1320 \mdsy@DeclareSymbol{cwcirculararrowup}{arrows}{\mathrel}
1321 \mdsy@DeclareSymbol{cwcirculararrowleft}{arrows}{\mathrel}
1322 \mdsy@DeclareSymbol{Rrightarrow}{arrows}{\mathrel}
1323 \mdsy@DeclareSymbol{Uparrow}{arrows}{\mathrel}
1324 \mdsy@DeclareSymbol{Lleftarrow}{arrows}{\mathrel}
1325 \mdsy@DeclareSymbol{Ddownarrow}{arrows}{\mathrel}
1326 \mdsy@DeclareSymbol{longrightarrow}{arrows}{\mathrel}
1327 \mdsy@DeclareSymbol{longleftarrow}{arrows}{\mathrel}
1328 \mdsy@DeclareSymbol{Longrightarrow}{arrows}{\mathrel}
1329 \mdsy@DeclareSymbol{Longleftarrow}{arrows}{\mathrel}
1330 \mdsy@DeclareSymbol{longleftrightarrow}{arrows}{\mathrel}
1331 \mdsy@DeclareSymbol{Longleftrightarrow}{arrows}{\mathrel}
1332 \mdsy@DeclareSymbol{longmapsto}{arrows}{\mathrel}
1333 \mdsy@DeclareSymbol{longmapsfrom}{arrows}{\mathrel}
1334 \mdsy@DeclareSymbol{Longmapsto}{arrows}{\mathrel}
1335 \mdsy@DeclareSymbol{Longmapsfrom}{arrows}{\mathrel}
1336 \mdsy@DeclareSymbol{longrightwavedarrow}{arrows}{\mathrel}
1337 \mdsy@DeclareAlias{longleadsto}{arrows}{\mathrel}
1338 \mdsy@DeclareAlias{longrightsquigarrow}{arrows}{\mathrel}

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1339 \mdsy@DeclareSymbol{longleftwvearrow}{arrows}{\mathrel}
1340 \mdsy@DeclareAlias{longleftsquigarrow}{arrows}{\mathrel}
1341 \mdsy@DeclareSymbol{longleftfootline}{arrows}{\mathrel}
1342 \mdsy@DeclareAlias{vlongdash}{arrows}{\mathrel}
1343 \mdsy@DeclareSymbol{longrightfootline}{arrows}{\mathrel}
1344 \mdsy@DeclareAlias{longdashv}{arrows}{\mathrel}
1345 \mdsy@DeclareSymbol{Lsh}{arrows}{\mathrel}
1346 \mdsy@DeclareSymbol{Rsh}{arrows}{\mathrel}
1347 \mdsy@DeclareSymbol{Ldsh}{arrows}{\mathrel}
1348 \mdsy@DeclareSymbol{Rdsh}{arrows}{\mathrel}
1349 \mdsy@DeclareSymbol{looparrowright}{arrows}{\mathrel}
1350 \mdsy@DeclareSymbol{looparrowleft}{arrows}{\mathrel}
1351 \mdsy@setslot{224}
1352 \mdsy@DeclareSymbol{rightvdash}{arrows}{\mathrel}
1353 \mdsy@DeclareAlias{vdash}{arrows}{\mathrel}
1354 \mdsy@DeclareSymbol{upvdash}{arrows}{\mathrel}
1355 \mdsy@DeclareAlias{perp}{arrows}{\mathrel}
1356 \mdsy@DeclareAlias{bot}{arrows}{\mathord}
1357 \mdsy@DeclareSymbol{leftvdash}{arrows}{\mathrel}
1358 \mdsy@DeclareAlias{dashv}{arrows}{\mathrel}
1359 \mdsy@DeclareSymbol{downvdash}{arrows}{\mathrel}
1360 \mdsy@DeclareAlias{top}{arrows}{\mathord}
1361 \mdsy@DeclareSymbol{rightassert}{arrows}{\mathrel}
1362 \mdsy@DeclareAlias{assert}{arrows}{\mathrel}
1363 \mdsy@DeclareAlias{shorttrighttack}{arrows}{\mathrel}
1364 \mdsy@DeclareSymbol{upassert}{arrows}{\mathrel}
1365 \mdsy@DeclareAlias{shortuptack}{arrows}{\mathrel}
1366 \mdsy@DeclareSymbol{leftassert}{arrows}{\mathrel}
1367 \mdsy@DeclareAlias{shortlefttack}{arrows}{\mathrel}
1368 \mdsy@DeclareSymbol{downassert}{arrows}{\mathrel}
1369 \mdsy@DeclareAlias{shortdowntack}{arrows}{\mathrel}
1370 \mdsy@DeclareSymbol{rightvDash}{arrows}{\mathrel}
1371 \mdsy@DeclareAlias{vDash}{arrows}{\mathrel}
1372 \mdsy@DeclareSymbol{upvDash}{arrows}{\mathrel}
1373 \mdsy@DeclareAlias{Vbar}{arrows}{\mathrel}
1374 \mdsy@DeclareSymbol{leftvDash}{arrows}{\mathrel}
1375 \mdsy@DeclareAlias{Dashv}{arrows}{\mathrel}
1376 \mdsy@DeclareSymbol{downvDash}{arrows}{\mathrel}
1377 \mdsy@DeclareAlias{barV}{arrows}{\mathrel}
1378 \mdsy@DeclareSymbol{rightmodels}{arrows}{\mathrel}
1379 \mdsy@DeclareAlias{models}{arrows}{\mathrel}
1380 \mdsy@DeclareSymbol{upmodels}{arrows}{\mathrel}
1381 \mdsy@DeclareSymbol{leftmodels}{arrows}{\mathrel}
1382 \mdsy@DeclareSymbol{downmodels}{arrows}{\mathrel}
1383 \mdsy@DeclareSymbol{rightVdash}{arrows}{\mathrel}

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1384 \mdsy@DeclareAlias{Vdash}{arrows}{\mathrel}
1385 \mdsy@DeclareSymbol{upVdash}{arrows}{\mathrel}
1386 \mdsy@DeclareSymbol{leftVdash}{arrows}{\mathrel}
1387 \mdsy@DeclareAlias{dashV}{arrows}{\mathrel}
1388 \mdsy@DeclareSymbol{downVdash}{arrows}{\mathrel}
1389 \mdsy@DeclareSymbol{rightAssert}{arrows}{\mathrel}
1390 \mdsy@DeclareAlias{Assert}{arrows}{\mathrel}
1391 \mdsy@DeclareSymbol{upAssert}{arrows}{\mathrel}
1392 \mdsy@DeclareAlias{vBar}{arrows}{\mathrel}
1393 \mdsy@DeclareSymbol{leftAssert}{arrows}{\mathrel}
1394 \mdsy@DeclareSymbol{downAssert}{arrows}{\mathrel}
1395 \mdsy@DeclareAlias{Barv}{arrows}{\mathrel}
1396 \mdsy@DeclareSymbol{rightVDash}{arrows}{\mathrel}
1397 \mdsy@DeclareAlias{VDash}{arrows}{\mathrel}
1398 \mdsy@DeclareSymbol{upVDash}{arrows}{\mathrel}
1399 \mdsy@DeclareSymbol{leftVDash}{arrows}{\mathrel}
1400 \mdsy@DeclareAlias{DashV}{arrows}{\mathrel}
1401 \mdsy@DeclareSymbol{downVDash}{arrows}{\mathrel}
1402 \mdsy@DeclareSymbol{Vvdash}{arrows}{\mathrel}
1403 \mdsy@DeclareSymbol{dashVv}{arrows}{\mathrel}
1404 \mdsy@DeclareSymbol{vDdash}{arrows}{\mathrel}
1405 \mdsy@DeclareSymbol{Ddashv}{arrows}{\mathrel}
1406
1407 \mdsy@DeclareRobustCommand{relbar}{\mathrel{\smash-}}
1408 \mdsy@DeclareRobustCommand{Relbar}{\mathrel=}
1409 \mdsy@DeclareRobustCommand{joinrel}{\mathrel{\mkern-4mu}}

MdSymbolD: stroked arrows
1410 \mdsy@setslot{0}
1411 \mdsy@DeclareSymbol{nrightarrow}{narrows}{\mathrel}
1412 \mdsy@DeclareAlias{nto}{narrows}{\mathrel}
1413 \mdsy@DeclareSymbol{nuparrow}{narrows}{\mathrel}
1414 \mdsy@DeclareSymbol{nleftarrow}{narrows}{\mathrel}
1415 \mdsy@DeclareAlias{ngets}{narrows}{\mathrel}
1416 \mdsy@DeclareSymbol{ndownarrow}{narrows}{\mathrel}
1417 \mdsy@DeclareSymbol{nnearrow}{narrows}{\mathrel}
1418 \mdsy@DeclareSymbol{nnwarrow}{narrows}{\mathrel}
1419 \mdsy@DeclareSymbol{nswarrow}{narrows}{\mathrel}
1420 \mdsy@DeclareSymbol{nsearrow}{narrows}{\mathrel}
1421 \mdsy@DeclareSymbol{nRightarrow}{narrows}{\mathrel}
1422 \mdsy@DeclareSymbol{nUparrow}{narrows}{\mathrel}
1423 \mdsy@DeclareSymbol{nLeftarrow}{narrows}{\mathrel}
1424 \mdsy@DeclareSymbol{nDownarrow}{narrows}{\mathrel}
1425 \mdsy@DeclareSymbol{nNearrow}{narrows}{\mathrel}
1426 \mdsy@DeclareSymbol{nNwarrow}{narrows}{\mathrel}
1427 \mdsy@DeclareSymbol{nSvarrow}{narrows}{\mathrel}

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1428 \mdsy@DeclareSymbol{nSearrow}{narrows}{\mathrel}
1429 \mdsy@DeclareSymbol{nlefttrightarrow}{narrows}{\mathrel}
1430 \mdsy@DeclareSymbol{nupdownarrow}{narrows}{\mathrel}
1431 \mdsy@DeclareSymbol{nneswarrow}{narrows}{\mathrel}
1432 \mdsy@DeclareSymbol{nnwsearrow}{narrows}{\mathrel}
1433 \mdsy@DeclareSymbol{nLefttrightarrow}{narrows}{\mathrel}
1434 \mdsy@DeclareSymbol{nUpdownarrow}{narrows}{\mathrel}
1435 \mdsy@DeclareSymbol{nNeswarrow}{narrows}{\mathrel}
1436 \mdsy@DeclareSymbol{nNwsearrow}{narrows}{\mathrel}
1437 \mdsy@DeclareSymbol{ntwoheadrightarrow}{narrows}{\mathrel}
1438 \mdsy@DeclareSymbol{ntwoheaduparrow}{narrows}{\mathrel}
1439 \mdsy@DeclareSymbol{ntwoheadleftarrow}{narrows}{\mathrel}
1440 \mdsy@DeclareSymbol{ntwoheaddownarrow}{narrows}{\mathrel}
1441 \mdsy@DeclareSymbol{ntwoheadnearrow}{narrows}{\mathrel}
1442 \mdsy@DeclareSymbol{ntwoheadnwarrow}{narrows}{\mathrel}
1443 \mdsy@DeclareSymbol{ntwoheadswarrow}{narrows}{\mathrel}
1444 \mdsy@DeclareSymbol{ntwoheadsearrow}{narrows}{\mathrel}
1445 \mdsy@DeclareSymbol{nrightarrowtail}{narrows}{\mathrel}
1446 \mdsy@DeclareSymbol{nuparrowtail}{narrows}{\mathrel}
1447 \mdsy@DeclareSymbol{nleftarrowtail}{narrows}{\mathrel}
1448 \mdsy@DeclareSymbol{ndownarrowtail}{narrows}{\mathrel}
1449 \mdsy@DeclareSymbol{nnearrowtail}{narrows}{\mathrel}
1450 \mdsy@DeclareSymbol{nnwarrowtail}{narrows}{\mathrel}
1451 \mdsy@DeclareSymbol{nswarrowtail}{narrows}{\mathrel}
1452 \mdsy@DeclareSymbol{nsearrowtail}{narrows}{\mathrel}
1453 \mdsy@DeclareSymbol{nrightmapsto}{narrows}{\mathrel}
1454 \mdsy@DeclareAlias{nmapsto}{narrows}{\mathrel}
1455 \mdsy@DeclareSymbol{nupmapsto}{narrows}{\mathrel}
1456 \mdsy@DeclareAlias{nmapsup}{narrows}{\mathrel}
1457 \mdsy@DeclareSymbol{nleftmapsto}{narrows}{\mathrel}
1458 \mdsy@DeclareAlias{nmapsfrom}{narrows}{\mathrel}
1459 \mdsy@DeclareSymbol{ndownmapsto}{narrows}{\mathrel}
1460 \mdsy@DeclareAlias{nmapsdown}{narrows}{\mathrel}
1461 \mdsy@DeclareSymbol{nRightmapsto}{narrows}{\mathrel}
1462 \mdsy@DeclareAlias{nMapsto}{narrows}{\mathrel}
1463 \mdsy@DeclareSymbol{nUpmapsto}{narrows}{\mathrel}
1464 \mdsy@DeclareAlias{nMapsup}{narrows}{\mathrel}
1465 \mdsy@DeclareSymbol{nLeftmapsto}{narrows}{\mathrel}
1466 \mdsy@DeclareAlias{nMapsfrom}{narrows}{\mathrel}
1467 \mdsy@DeclareSymbol{nDownmapsto}{narrows}{\mathrel}
1468 \mdsy@DeclareAlias{nMapsdown}{narrows}{\mathrel}
1469 \mdsy@DeclareSymbol{nhookrightarrow}{narrows}{\mathrel}
1470 \mdsy@DeclareSymbol{nhookuparrow}{narrows}{\mathrel}
1471 \mdsy@DeclareSymbol{nvarhookleftarrow}{narrows}{\mathrel}
1472 \mdsy@DeclareSymbol{nvarhookdownarrow}{narrows}{\mathrel}

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1473 \mdsy@DeclareSymbol{nvarhooknearrow}{narrows}{\mathrel}
1474 \mdsy@DeclareSymbol{nhooknwarrow}{narrows}{\mathrel}
1475 \mdsy@DeclareAlias{nhknwarrow}{narrows}{\mathrel}
1476 \mdsy@DeclareSymbol{nvarhookswarrow}{narrows}{\mathrel}
1477 \mdsy@DeclareSymbol{nhooksearrow}{narrows}{\mathrel}
1478 \mdsy@DeclareAlias{nhksearrow}{narrows}{\mathrel}
1479 \mdsy@DeclareSymbol{nvarhookrightarrow}{narrows}{\mathrel}
1480 \mdsy@DeclareSymbol{nvarhookuparrow}{narrows}{\mathrel}
1481 \mdsy@DeclareSymbol{nhookleftarrow}{narrows}{\mathrel}
1482 \mdsy@DeclareSymbol{nhookdownarrow}{narrows}{\mathrel}
1483 \mdsy@DeclareSymbol{nhooknearrow}{narrows}{\mathrel}
1484 \mdsy@DeclareAlias{nhknearrow}{narrows}{\mathrel}
1485 \mdsy@DeclareSymbol{nvarhooknwarrow}{narrows}{\mathrel}
1486 \mdsy@DeclareSymbol{nhookswarrow}{narrows}{\mathrel}
1487 \mdsy@DeclareAlias{nhkswarrow}{narrows}{\mathrel}
1488 \mdsy@DeclareSymbol{nvarhooksearrow}{narrows}{\mathrel}
1489 \mdsy@DeclareSymbol{nrightharpoonup}{narrows}{\mathrel}
1490 \mdsy@DeclareSymbol{nupharpoonleft}{narrows}{\mathrel}
1491 \mdsy@DeclareSymbol{nleftharpoondown}{narrows}{\mathrel}
1492 \mdsy@DeclareSymbol{ndownharpoonright}{narrows}{\mathrel}
1493 \mdsy@DeclareSymbol{nneharpoonnw}{narrows}{\mathrel}
1494 \mdsy@DeclareSymbol{nnwharpoonsw}{narrows}{\mathrel}
1495 \mdsy@DeclareSymbol{nswharpoonse}{narrows}{\mathrel}
1496 \mdsy@DeclareSymbol{nseharpoonne}{narrows}{\mathrel}
1497 \mdsy@DeclareSymbol{nrightharpoondown}{narrows}{\mathrel}
1498 \mdsy@DeclareSymbol{nupharpoonright}{narrows}{\mathrel}
1499 \mdsy@DeclareAlias{nrestriction}{narrows}{\mathrel}
1500 \mdsy@DeclareSymbol{nleftharpoonup}{narrows}{\mathrel}
1501 \mdsy@DeclareSymbol{ndownharpoonleft}{narrows}{\mathrel}
1502 \mdsy@DeclareSymbol{nneharpoonse}{narrows}{\mathrel}
1503 \mdsy@DeclareSymbol{nnwharpoonne}{narrows}{\mathrel}
1504 \mdsy@DeclareSymbol{nswharpoonnw}{narrows}{\mathrel}
1505 \mdsy@DeclareSymbol{nseharpoonsw}{narrows}{\mathrel}
1506 \mdsy@DeclareSymbol{nleftrightharpoonupdown}{narrows}{\mathrel}
1507 \mdsy@DeclareSymbol{nupdownharpoonleftright}{narrows}{\mathrel}
1508 \mdsy@DeclareSymbol{nneswharpoonnwse}{narrows}{\mathrel}
1509 \mdsy@DeclareSymbol{nnwseharpoonesw}{narrows}{\mathrel}
1510 \mdsy@DeclareSymbol{nleftrightharpoondownup}{narrows}{\mathrel}
1511 \mdsy@DeclareSymbol{nupdownharpoonrightleft}{narrows}{\mathrel}
1512 \mdsy@DeclareSymbol{nneswharpoonsenw}{narrows}{\mathrel}
1513 \mdsy@DeclareSymbol{nnwseharpoonswne}{narrows}{\mathrel}
1514 \mdsy@DeclareSymbol{nrightleftharpoons}{narrows}{\mathrel}
1515 \mdsy@DeclareSymbol{nupdownharpoons}{narrows}{\mathrel}
1516 \mdsy@DeclareAlias{nupdownharpoonsleftright}{narrows}{\mathrel}
1517 \mdsy@DeclareSymbol{nneswharpoons}{narrows}{\mathrel}

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1518 \mdsy@DeclareSymbol{nsewharpoons}{narrows}{\mathrel}
1519 \mdsy@DeclareSymbol{nleftrightharpoons}{narrows}{\mathrel}
1520 \mdsy@DeclareSymbol{ndownupharpoons}{narrows}{\mathrel}
1521 \mdsy@DeclareAlias{ndownupharpoonsleftright}{narrows}{\mathrel}
1522 \mdsy@DeclareSymbol{nswneharpoons}{narrows}{\mathrel}
1523 \mdsy@DeclareSymbol{nnwseharpoons}{narrows}{\mathrel}
1524 \mdsy@DeclareSymbol{nrightbkarrow}{narrows}{\mathrel}
1525 \mdsy@DeclareAlias{ndasharrow}{narrows}{\mathrel}
1526 \mdsy@DeclareAlias{ndashrightarrow}{narrows}{\mathrel}
1527 \mdsy@DeclareSymbol{nupbkarrow}{narrows}{\mathrel}
1528 \mdsy@DeclareSymbol{nleftbkarrow}{narrows}{\mathrel}
1529 \mdsy@DeclareAlias{ndashleftarrow}{narrows}{\mathrel}
1530 \mdsy@DeclareSymbol{ndownbkarrow}{narrows}{\mathrel}
1531 \mdsy@DeclareSymbol{nnebkarrow}{narrows}{\mathrel}
1532 \mdsy@DeclareSymbol{nnwbkarrow}{narrows}{\mathrel}
1533 \mdsy@DeclareSymbol{nswbkarrow}{narrows}{\mathrel}
1534 \mdsy@DeclareSymbol{nsebkarrow}{narrows}{\mathrel}
1535 \mdsy@DeclareSymbol{nrightspoon}{narrows}{\mathrel}
1536 \mdsy@DeclareAlias{nmultimap}{narrows}{\mathrel}
1537 \mdsy@DeclareSymbol{nupspoon}{narrows}{\mathrel}
1538 \mdsy@DeclareAlias{ncirmid}{narrows}{\mathrel}
1539 \mdsy@DeclareSymbol{nleftspoon}{narrows}{\mathrel}
1540 \mdsy@DeclareAlias{nmultimapinv}{narrows}{\mathrel}
1541 \mdsy@DeclareSymbol{ndownspoon}{narrows}{\mathrel}
1542 \mdsy@DeclareAlias{nmidcir}{narrows}{\mathrel}
1543 \mdsy@DeclareSymbol{nrightblackspoon}{narrows}{\mathrel}
1544 \mdsy@DeclareSymbol{nupblackspoon}{narrows}{\mathrel}
1545 \mdsy@DeclareSymbol{nleftblackspoon}{narrows}{\mathrel}
1546 \mdsy@DeclareSymbol{ndownblackspoon}{narrows}{\mathrel}
1547 \mdsy@DeclareSymbol{nleftrightspoon}{narrows}{\mathrel}
1548 \mdsy@DeclareAlias{ndualmap}{narrows}{\mathrel}
1549 \mdsy@DeclareSymbol{nleftrightblackspoon}{narrows}{\mathrel}
1550 \mdsy@DeclareSymbol{nblackwhitespoon}{narrows}{\mathrel}
1551 \mdsy@DeclareAlias{nimageof}{narrows}{\mathrel}
1552 \mdsy@DeclareSymbol{nwhiteblackspoon}{narrows}{\mathrel}
1553 \mdsy@DeclareAlias{norigof}{narrows}{\mathrel}
1554 \mdsy@DeclareSymbol{nrightpitchfork}{narrows}{\mathrel}
1555 \mdsy@DeclareSymbol{nuppitchfork}{narrows}{\mathrel}
1556 \mdsy@DeclareAlias{npitchfork}{narrows}{\mathrel}
1557 \mdsy@DeclareSymbol{nleftpitchfork}{narrows}{\mathrel}
1558 \mdsy@DeclareSymbol{ndownpitchfork}{narrows}{\mathrel}
1559 \mdsy@DeclareSymbol{nrightarrows}{narrows}{\mathrel}
1560 \mdsy@DeclareSymbol{nupuparrows}{narrows}{\mathrel}
1561 \mdsy@DeclareSymbol{nleftleftarrows}{narrows}{\mathrel}
1562 \mdsy@DeclareSymbol{ndowndownarrows}{narrows}{\mathrel}

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1563 \mdsy@DeclareSymbol{nnenearrows}{narrows}{\mathrel}
1564 \mdsy@DeclareSymbol{nnwnwarrows}{narrows}{\mathrel}
1565 \mdsy@DeclareSymbol{nswwarrows}{narrows}{\mathrel}
1566 \mdsy@DeclareSymbol{nsesearrows}{narrows}{\mathrel}
1567 \mdsy@DeclareSymbol{nrightleftarrows}{narrows}{\mathrel}
1568 \mdsy@DeclareSymbol{nupdownarrows}{narrows}{\mathrel}
1569 \mdsy@DeclareSymbol{nneswarrows}{narrows}{\mathrel}
1570 \mdsy@DeclareSymbol{nnwsearrows}{narrows}{\mathrel}
1571 \mdsy@DeclareSymbol{nleftrightharrows}{narrows}{\mathrel}
1572 \mdsy@DeclareSymbol{ndownuparrows}{narrows}{\mathrel}
1573 \mdsy@DeclareSymbol{nswnearrows}{narrows}{\mathrel}
1574 \mdsy@DeclareSymbol{nsenwarrows}{narrows}{\mathrel}
1575 \mdsy@DeclareSymbol{nrightwvearrow}{narrows}{\mathrel}
1576 \mdsy@DeclareAlias{nleadsto}{narrows}{\mathrel}
1577 \mdsy@DeclareAlias{nrightsquigarrow}{narrows}{\mathrel}
1578 \mdsy@DeclareAlias{nrightcurvedarrow}{arrows}{\mathrel}
1579 \mdsy@DeclareAlias{nrightlsquigarrow}{narrows}{\mathrel}
1580 \mdsy@DeclareSymbol{nvarupwvearrow}{narrows}{\mathrel}
1581 \mdsy@DeclareAlias{nuplsquigarrow}{narrows}{\mathrel}
1582 \mdsy@DeclareSymbol{nvarleftwvearrow}{narrows}{\mathrel}
1583 \mdsy@DeclareAlias{nleftlsquigarrow}{narrows}{\mathrel}
1584 \mdsy@DeclareSymbol{ndownwvearrow}{narrows}{\mathrel}
1585 \mdsy@DeclareAlias{ndownlsquigarrow}{narrows}{\mathrel}
1586 \mdsy@DeclareSymbol{nvarrightwvearrow}{narrows}{\mathrel}
1587 \mdsy@DeclareAlias{nrightrsquigarrow}{narrows}{\mathrel}
1588 \mdsy@DeclareSymbol{nupwvearrow}{narrows}{\mathrel}
1589 \mdsy@DeclareAlias{nuprsquigarrow}{narrows}{\mathrel}
1590 \mdsy@DeclareSymbol{nleftwvearrow}{narrows}{\mathrel}
1591 \mdsy@DeclareAlias{nleftsquigarrow}{narrows}{\mathrel}
1592 \mdsy@DeclareAlias{nleftcurvedarrow}{arrows}{\mathrel}
1593 \mdsy@DeclareAlias{nleftrsquigarrow}{narrows}{\mathrel}
1594 \mdsy@DeclareSymbol{nvardownwvearrow}{narrows}{\mathrel}
1595 \mdsy@DeclareAlias{ndownrsquigarrow}{narrows}{\mathrel}
1596 \mdsy@DeclareSymbol{nleftrightwvearrow}{narrows}{\mathrel}
1597 \mdsy@DeclareAlias{nleftrightsquigarrow}{narrows}{\mathrel}
1598 \mdsy@DeclareSymbol{nupdownwvearrow}{narrows}{\mathrel}
1599 \mdsy@DeclareAlias{nupdownsquigarrow}{narrows}{\mathrel}
1600 \mdsy@DeclareSymbol{nvarleftrightwvearrow}{narrows}{\mathrel}
1601 \mdsy@DeclareAlias{nrightleftsquigarrow}{narrows}{\mathrel}
1602 \mdsy@DeclareSymbol{nvarupdownwvearrow}{narrows}{\mathrel}
1603 \mdsy@DeclareAlias{ndownupsquigarrow}{narrows}{\mathrel}
1604 \mdsy@DeclareSymbol{ncwoverarcarrow}{narrows}{\mathrel}
1605 \mdsy@DeclareAlias{ncurvearrowright}{narrows}{\mathrel}
1606 \mdsy@DeclareAlias{nrightlcurvearrow}{narrows}{\mathrel}
1607 \mdsy@DeclareSymbol{ncwleftarcarrow}{narrows}{\mathrel}

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1608 \mdsy@DeclareAlias{nuplcurvearrow}{narrows}{\mathrel}
1609 \mdsy@DeclareSymbol{ncwunderarccarrow}{narrows}{\mathrel}
1610 \mdsy@DeclareAlias{nleftlcurvearrow}{narrows}{\mathrel}
1611 \mdsy@DeclareSymbol{ncwrightarccarrow}{narrows}{\mathrel}
1612 \mdsy@DeclareAlias{ndownlcurvearrow}{narrows}{\mathrel}
1613 \mdsy@DeclareSymbol{ncwnwarccarrow}{narrows}{\mathrel}
1614 \mdsy@DeclareAlias{nrightupcurvedarrow}{narrows}{\mathrel}
1615 \mdsy@DeclareAlias{nnelcurvearrow}{narrows}{\mathrel}
1616 \mdsy@DeclareSymbol{ncwswarccarrow}{narrows}{\mathrel}
1617 \mdsy@DeclareAlias{nupleftcurvedarrow}{narrows}{\mathrel}
1618 \mdsy@DeclareAlias{nnwlcurvearrow}{narrows}{\mathrel}
1619 \mdsy@DeclareSymbol{ncwsearccarrow}{narrows}{\mathrel}
1620 \mdsy@DeclareAlias{nleftdowncurvedarrow}{narrows}{\mathrel}
1621 \mdsy@DeclareAlias{nswlcurvearrow}{narrows}{\mathrel}
1622 \mdsy@DeclareSymbol{ncwnearccarrow}{narrows}{\mathrel}
1623 \mdsy@DeclareAlias{ndownrightcurvedarrow}{narrows}{\mathrel}
1624 \mdsy@DeclareAlias{nseelcurvearrow}{narrows}{\mathrel}
1625 \mdsy@DeclareSymbol{nacwunderarccarrow}{narrows}{\mathrel}
1626 \mdsy@DeclareAlias{nrightrcurvearrow}{narrows}{\mathrel}
1627 \mdsy@DeclareSymbol{nacwrightarccarrow}{narrows}{\mathrel}
1628 \mdsy@DeclareAlias{nuprcurvearrow}{narrows}{\mathrel}
1629 \mdsy@DeclareSymbol{nacwoverarccarrow}{narrows}{\mathrel}
1630 \mdsy@DeclareAlias{ncurvearrowleft}{narrows}{\mathrel}
1631 \mdsy@DeclareAlias{nleftrcurvearrow}{narrows}{\mathrel}
1632 \mdsy@DeclareSymbol{nacwleftarccarrow}{narrows}{\mathrel}
1633 \mdsy@DeclareAlias{ndownrcurvearrow}{narrows}{\mathrel}
1634 \mdsy@DeclareSymbol{nacwsearccarrow}{narrows}{\mathrel}
1635 \mdsy@DeclareAlias{nuprightcurvearrow}{narrows}{\mathrel}
1636 \mdsy@DeclareAlias{nnercurvearrow}{narrows}{\mathrel}
1637 \mdsy@DeclareSymbol{nacwnearccarrow}{narrows}{\mathrel}
1638 \mdsy@DeclareAlias{nleftupcurvedarrow}{narrows}{\mathrel}
1639 \mdsy@DeclareAlias{nnwrcurvearrow}{narrows}{\mathrel}
1640 \mdsy@DeclareSymbol{nacwnwarccarrow}{narrows}{\mathrel}
1641 \mdsy@DeclareAlias{ndownleftcurvedarrow}{narrows}{\mathrel}
1642 \mdsy@DeclareAlias{nswrcurvearrow}{narrows}{\mathrel}
1643 \mdsy@DeclareSymbol{nacwswarccarrow}{narrows}{\mathrel}
1644 \mdsy@DeclareAlias{nrightdowncurvedarrow}{narrows}{\mathrel}
1645 \mdsy@DeclareAlias{nsercurvearrow}{narrows}{\mathrel}
1646 \mdsy@DeclareSymbol{nbdoverarccarrow}{narrows}{\mathrel}
1647 \mdsy@DeclareAlias{nleftrightcurvearrow}{narrows}{\mathrel}
1648 \mdsy@DeclareSymbol{nbdleftarccarrow}{narrows}{\mathrel}
1649 \mdsy@DeclareAlias{nupdowncurvearrow}{narrows}{\mathrel}
1650 \mdsy@DeclareSymbol{nbdunderarccarrow}{narrows}{\mathrel}
1651 \mdsy@DeclareAlias{nrightleftcurvearrow}{narrows}{\mathrel}
1652 \mdsy@DeclareSymbol{nbdrightarccarrow}{narrows}{\mathrel}

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1653 \mdsy@DeclareAlias{ndownupcurvearrow}{narrows}{\mathrel}
1654 \mdsy@DeclareSymbol{nbdnwarcarrow}{narrows}{\mathrel}
1655 \mdsy@DeclareAlias{nneswcurvearrow}{narrows}{\mathrel}
1656 \mdsy@DeclareSymbol{nbdswarcarrow}{narrows}{\mathrel}
1657 \mdsy@DeclareAlias{nnwsecurvearrow}{narrows}{\mathrel}
1658 \mdsy@DeclareSymbol{nbdsearcarrow}{narrows}{\mathrel}
1659 \mdsy@DeclareAlias{nswnecurvearrow}{narrows}{\mathrel}
1660 \mdsy@DeclareSymbol{nbdnearcarrow}{narrows}{\mathrel}
1661 \mdsy@DeclareAlias{nsewcurvearrow}{narrows}{\mathrel}
1662 \mdsy@DeclareSymbol{nleftfootline}{narrows}{\mathrel}
1663 \mdsy@DeclareSymbol{nrightfootline}{narrows}{\mathrel}
1664 \mdsy@DeclareSymbol{nacwcirculararrowup}{narrows}{\mathrel}
1665 \mdsy@DeclareSymbol{nacwcirculararrowleft}{narrows}{\mathrel}
1666 \mdsy@DeclareAlias{ncirculararrowleft}{narrows}{\mathrel}
1667 \mdsy@DeclareAlias{nacwopencirculararrow}{narrows}{\mathrel}
1668 \mdsy@DeclareSymbol{nacwcirculararrowdown}{narrows}{\mathrel}
1669 \mdsy@DeclareAlias{nacwgapcirculararrow}{narrows}{\mathrel}
1670 \mdsy@DeclareSymbol{nacwcirculararrowright}{narrows}{\mathrel}
1671 \mdsy@DeclareSymbol{ncwcirculararrowdown}{narrows}{\mathrel}
1672 \mdsy@DeclareAlias{ncwgapcirculararrow}{narrows}{\mathrel}
1673 \mdsy@DeclareSymbol{ncwcirculararrowright}{narrows}{\mathrel}
1674 \mdsy@DeclareAlias{ncirculararrowright}{narrows}{\mathrel}
1675 \mdsy@DeclareAlias{ncwopencirculararrow}{narrows}{\mathrel}
1676 \mdsy@DeclareSymbol{ncwcirculararrowup}{narrows}{\mathrel}
1677 \mdsy@DeclareSymbol{ncwcirculararrowleft}{narrows}{\mathrel}
1678 \mdsy@DeclareSymbol{nRrightarrow}{narrows}{\mathrel}
1679 \mdsy@DeclareSymbol{nUparrow}{narrows}{\mathrel}
1680 \mdsy@DeclareSymbol{nLleftarrow}{narrows}{\mathrel}
1681 \mdsy@DeclareSymbol{nDdownarrow}{narrows}{\mathrel}
1682 \mdsy@DeclareSymbol{nlongrightarrow}{narrows}{\mathrel}
1683 \mdsy@DeclareSymbol{nlongleftarrow}{narrows}{\mathrel}
1684 \mdsy@DeclareSymbol{nLongrightarrow}{narrows}{\mathrel}
1685 \mdsy@DeclareSymbol{nLongleftarrow}{narrows}{\mathrel}
1686 \mdsy@DeclareSymbol{nlongleftrightarrow}{narrows}{\mathrel}
1687 \mdsy@DeclareSymbol{nLongleftrightarrow}{narrows}{\mathrel}
1688 \mdsy@DeclareSymbol{nlongmapsto}{narrows}{\mathrel}
1689 \mdsy@DeclareSymbol{nlongmapsfrom}{narrows}{\mathrel}
1690 \mdsy@DeclareSymbol{nLongmapsto}{narrows}{\mathrel}
1691 \mdsy@DeclareSymbol{nLongmapsfrom}{narrows}{\mathrel}
1692 \mdsy@DeclareSymbol{nlongrightwvearrow}{narrows}{\mathrel}
1693 \mdsy@DeclareAlias{nlongleadsto}{narrows}{\mathrel}
1694 \mdsy@DeclareAlias{nlongrightsquigarrow}{narrows}{\mathrel}
1695 \mdsy@DeclareSymbol{nlongleftwvearrow}{narrows}{\mathrel}
1696 \mdsy@DeclareAlias{nlongleftsquigarrow}{narrows}{\mathrel}
1697 \mdsy@DeclareSymbol{nlongleftfootline}{narrows}{\mathrel}

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1698 \mdsy@DeclareAlias{nvlongdash}{narrows}{\mathrel}
1699 \mdsy@DeclareSymbol{nlongrightfootline}{narrows}{\mathrel}
1700 \mdsy@DeclareAlias{nlongdashv}{narrows}{\mathrel}
1701 \mdsy@setslot{224}
1702 \mdsy@DeclareSymbol{nrightvdash}{narrows}{\mathrel}
1703 \mdsy@DeclareAlias{nvDash}{narrows}{\mathrel}
1704 \mdsy@DeclareSymbol{nupvdash}{narrows}{\mathrel}
1705 \mdsy@DeclareAlias{nperp}{narrows}{\mathrel}
1706 \mdsy@DeclareSymbol{nleftvdash}{narrows}{\mathrel}
1707 \mdsy@DeclareAlias{ndashv}{narrows}{\mathrel}
1708 \mdsy@DeclareSymbol{ndownvdash}{narrows}{\mathrel}
1709 \mdsy@DeclareSymbol{nrightassert}{narrows}{\mathrel}
1710 \mdsy@DeclareAlias{nassert}{narrows}{\mathrel}
1711 \mdsy@DeclareAlias{nshortrighttack}{narrows}{\mathrel}
1712 \mdsy@DeclareSymbol{nupassert}{narrows}{\mathrel}
1713 \mdsy@DeclareAlias{nshortuptack}{narrows}{\mathrel}
1714 \mdsy@DeclareSymbol{nleftassert}{narrows}{\mathrel}
1715 \mdsy@DeclareAlias{nshortlefttack}{narrows}{\mathrel}
1716 \mdsy@DeclareSymbol{ndownassert}{narrows}{\mathrel}
1717 \mdsy@DeclareAlias{nshortdowntack}{narrows}{\mathrel}
1718 \mdsy@DeclareSymbol{nrightvDash}{narrows}{\mathrel}
1719 \mdsy@DeclareAlias{nvDash}{narrows}{\mathrel}
1720 \mdsy@DeclareSymbol{nupvDash}{narrows}{\mathrel}
1721 \mdsy@DeclareAlias{nVbar}{narrows}{\mathrel}
1722 \mdsy@DeclareSymbol{nleftvDash}{narrows}{\mathrel}
1723 \mdsy@DeclareAlias{nDashv}{narrows}{\mathrel}
1724 \mdsy@DeclareSymbol{ndownvDash}{narrows}{\mathrel}
1725 \mdsy@DeclareAlias{nbarV}{narrows}{\mathrel}
1726 \mdsy@DeclareSymbol{nrightmodels}{narrows}{\mathrel}
1727 \mdsy@DeclareAlias{nmodels}{narrows}{\mathrel}
1728 \mdsy@DeclareSymbol{nupmodels}{narrows}{\mathrel}
1729 \mdsy@DeclareSymbol{nleftmodels}{narrows}{\mathrel}
1730 \mdsy@DeclareSymbol{ndownmodels}{narrows}{\mathrel}
1731 \mdsy@DeclareSymbol{nrightVdash}{narrows}{\mathrel}
1732 \mdsy@DeclareAlias{nVdash}{narrows}{\mathrel}
1733 \mdsy@DeclareSymbol{nupVdash}{narrows}{\mathrel}
1734 \mdsy@DeclareSymbol{nleftVdash}{narrows}{\mathrel}
1735 \mdsy@DeclareAlias{ndashV}{narrows}{\mathrel}
1736 \mdsy@DeclareSymbol{ndownVdash}{narrows}{\mathrel}
1737 \mdsy@DeclareSymbol{nrightAssert}{narrows}{\mathrel}
1738 \mdsy@DeclareAlias{nAssert}{narrows}{\mathrel}
1739 \mdsy@DeclareSymbol{nupAssert}{narrows}{\mathrel}
1740 \mdsy@DeclareAlias{nvBar}{narrows}{\mathrel}
1741 \mdsy@DeclareSymbol{nleftAssert}{narrows}{\mathrel}
1742 \mdsy@DeclareSymbol{ndownAssert}{narrows}{\mathrel}

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1743 \mdsy@DeclareAlias{nBarv}{narrows}{\mathrel}
1744 \mdsy@DeclareSymbol{nrightVDash}{narrows}{\mathrel}
1745 \mdsy@DeclareAlias{nVDash}{narrows}{\mathrel}
1746 \mdsy@DeclareSymbol{nupVDash}{narrows}{\mathrel}
1747 \mdsy@DeclareSymbol{nleftVDash}{narrows}{\mathrel}
1748 \mdsy@DeclareAlias{nDashV}{narrows}{\mathrel}
1749 \mdsy@DeclareSymbol{ndownVDash}{narrows}{\mathrel}
1750 \mdsy@DeclareSymbol{nVvdash}{narrows}{\mathrel}
1751 \mdsy@DeclareSymbol{ndashVv}{narrows}{\mathrel}
1752 \mdsy@DeclareSymbol{nvDdash}{narrows}{\mathrel}
1753 \mdsy@DeclareSymbol{nDdashv}{narrows}{\mathrel}

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MdSymbolE: large operators

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1754 \mdsy@setslot{0}
1755 \mdsy@DeclareSymbol{tbigplus}{largesymbols}{\mathop}
1756 \mdsy@DeclareSymbol{dbigplus}{largesymbols}{\mathop}
1757 \mdsy@DeclareSymbol{tbigtimes}{largesymbols}{\mathop}
1758 \mdsy@DeclareSymbol{dbigtimes}{largesymbols}{\mathop}
1759 \mdsy@DeclareSymbol{tbigwedge}{largesymbols}{\mathop}
1760 \mdsy@DeclareSymbol{dbigwedge}{largesymbols}{\mathop}
1761 \mdsy@DeclareSymbol{tbigvee}{largesymbols}{\mathop}
1762 \mdsy@DeclareSymbol{dbigvee}{largesymbols}{\mathop}
1763 \mdsy@DeclareSymbol{tbigwedgedot}{largesymbols}{\mathop}
1764 \mdsy@DeclareSymbol{dbigwedgedot}{largesymbols}{\mathop}
1765 \mdsy@DeclareSymbol{tbigveedot}{largesymbols}{\mathop}
1766 \mdsy@DeclareSymbol{dbigveedot}{largesymbols}{\mathop}
1767 \mdsy@DeclareSymbol{tbigdoublewedge}{largesymbols}{\mathop}
1768 \mdsy@DeclareAlias{tconjquant}{largesymbols}{\mathop}
1769 \mdsy@DeclareSymbol{dbigdoublewedge}{largesymbols}{\mathop}
1770 \mdsy@DeclareAlias{dconjquant}{largesymbols}{\mathop}
1771 \mdsy@DeclareSymbol{tbigdoublevee}{largesymbols}{\mathop}
1772 \mdsy@DeclareAlias{tdisjquant}{largesymbols}{\mathop}
1773 \mdsy@DeclareSymbol{dbigdoublevee}{largesymbols}{\mathop}
1774 \mdsy@DeclareAlias{ddisjquant}{largesymbols}{\mathop}
1775 \mdsy@DeclareSymbol{tbigcurlywedge}{largesymbols}{\mathop}
1776 \mdsy@DeclareSymbol{dbigcurlywedge}{largesymbols}{\mathop}
1777 \mdsy@DeclareSymbol{tbigcurlyvee}{largesymbols}{\mathop}
1778 \mdsy@DeclareSymbol{dbigcurlyvee}{largesymbols}{\mathop}
1779 \mdsy@DeclareSymbol{tbigcap}{largesymbols}{\mathop}
1780 \mdsy@DeclareSymbol{dbigcap}{largesymbols}{\mathop}
1781 \mdsy@DeclareSymbol{tbigcup}{largesymbols}{\mathop}
1782 \mdsy@DeclareSymbol{dbigcup}{largesymbols}{\mathop}
1783 \mdsy@DeclareSymbol{tbigcapdot}{largesymbols}{\mathop}
1784 \mdsy@DeclareSymbol{dbigcapdot}{largesymbols}{\mathop}
1785 \mdsy@DeclareSymbol{tbigcupdot}{largesymbols}{\mathop}
1786 \mdsy@DeclareSymbol{dbigcupdot}{largesymbols}{\mathop}

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1787 \mdsy@DeclareSymbol{tbigcapplus}{largesymbols}{\mathop}
1788 \mdsy@DeclareSymbol{dbigcapplus}{largesymbols}{\mathop}
1789 \mdsy@DeclareSymbol{tbigcupplus}{largesymbols}{\mathop}
1790 \mdsy@DeclareAlias{tbiguplus}{largesymbols}{\mathop}
1791 \mdsy@DeclareSymbol{dbigcupplus}{largesymbols}{\mathop}
1792 \mdsy@DeclareAlias{dbiguplus}{largesymbols}{\mathop}
1793 \mdsy@DeclareSymbol{tbigsqcap}{largesymbols}{\mathop}
1794 \mdsy@DeclareSymbol{dbigsqcap}{largesymbols}{\mathop}
1795 \mdsy@DeclareSymbol{tbigsqcup}{largesymbols}{\mathop}
1796 \mdsy@DeclareSymbol{dbigsqcup}{largesymbols}{\mathop}
1797 \mdsy@DeclareSymbol{tbigsqcapdot}{largesymbols}{\mathop}
1798 \mdsy@DeclareSymbol{dbigsqcapdot}{largesymbols}{\mathop}
1799 \mdsy@DeclareSymbol{tbigsqcupdot}{largesymbols}{\mathop}
1800 \mdsy@DeclareSymbol{dbigsqcupdot}{largesymbols}{\mathop}
1801 \mdsy@DeclareSymbol{tbigsqcapplus}{largesymbols}{\mathop}
1802 \mdsy@DeclareSymbol{dbigsqcapplus}{largesymbols}{\mathop}
1803 \mdsy@DeclareSymbol{tbigsqcupplus}{largesymbols}{\mathop}
1804 \mdsy@DeclareSymbol{dbigsqcupplus}{largesymbols}{\mathop}
1805 \mdsy@DeclareSymbol{tbigoplus}{largesymbols}{\mathop}
1806 \mdsy@DeclareSymbol{dbigoplus}{largesymbols}{\mathop}
1807 \mdsy@DeclareSymbol{tbigotimes}{largesymbols}{\mathop}
1808 \mdsy@DeclareSymbol{dbigotimes}{largesymbols}{\mathop}
1809 \mdsy@DeclareSymbol{tbigodot}{largesymbols}{\mathop}
1810 \mdsy@DeclareSymbol{dbigodot}{largesymbols}{\mathop}
1811 \mdsy@DeclareSymbol{tbigooast}{largesymbols}{\mathop}
1812 \mdsy@DeclareSymbol{dbigoast}{largesymbols}{\mathop}
1813 \mdsy@DeclareSymbol{tprod}{largesymbols}{\mathop}
1814 \mdsy@DeclareSymbol{dprod}{largesymbols}{\mathop}
1815 \mdsy@DeclareSymbol{tcoprod}{largesymbols}{\mathop}
1816 \mdsy@DeclareSymbol{dcoprod}{largesymbols}{\mathop}
1817 \mdsy@DeclareSymbol{tsum}{largesymbols}{\mathop}
1818 \mdsy@DeclareSymbol{dsum}{largesymbols}{\mathop}
1819 \mdsy@DeclareSymbol{tosum}{largesymbols}{\mathop}
1820 \mdsy@DeclareAlias{tmodtwosum}{largesymbols}{\mathop}
1821 \mdsy@DeclareSymbol{dosum}{largesymbols}{\mathop}
1822 \mdsy@DeclareAlias{dmodtwosum}{largesymbols}{\mathop}
1823 \mdsy@DeclareSymbol{tint}{largesymbols}{\mathop}
1824 \mdsy@DeclareSymbol{dint}{largesymbols}{\mathop}
1825 \mdsy@DeclareSymbol{tiint}{largesymbols}{\mathop}
1826 \mdsy@DeclareSymbol{diint}{largesymbols}{\mathop}
1827 \mdsy@DeclareSymbol{tiiint}{largesymbols}{\mathop}
1828 \mdsy@DeclareSymbol{diiint}{largesymbols}{\mathop}
1829 \mdsy@DeclareSymbol{tiiiint}{largesymbols}{\mathop}
1830 \mdsy@DeclareSymbol{diiiint}{largesymbols}{\mathop}
1831 \mdsy@DeclareSymbol{tidotsint}{largesymbols}{\mathop}

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```

1832 \mdsy@DeclareAlias{tdotsint}{largesymbols}{\mathop}
1833 \mdsy@DeclareSymbol{didotsint}{largesymbols}{\mathop}
1834 \mdsy@DeclareAlias{ddotsint}{largesymbols}{\mathop}
1835 \mdsy@DeclareSymbol{tlandupint}{largesymbols}{\mathop}
1836 \mdsy@DeclareAlias{tintclockwise}{largesymbols}{\mathop}
1837 \mdsy@DeclareSymbol{dlandupint}{largesymbols}{\mathop}
1838 \mdsy@DeclareAlias{dintclockwise}{largesymbols}{\mathop}
1839 \mdsy@DeclareSymbol{tlanddownint}{largesymbols}{\mathop}
1840 \mdsy@DeclareAlias{tawint}{largesymbols}{\mathop}
1841 \mdsy@DeclareAlias{tintctrcclockwise}{largesymbols}{\mathop}
1842 \mdsy@DeclareSymbol{dlanddownint}{largesymbols}{\mathop}
1843 \mdsy@DeclareAlias{dawint}{largesymbols}{\mathop}
1844 \mdsy@DeclareAlias{dintctrcclockwise}{largesymbols}{\mathop}
1845 \mdsy@DeclareSymbol{tintbar}{largesymbols}{\mathop}
1846 \mdsy@DeclareSymbol{dintbar}{largesymbols}{\mathop}
1847 \mdsy@DeclareSymbol{tintBar}{largesymbols}{\mathop}
1848 \mdsy@DeclareSymbol{dintBar}{largesymbols}{\mathop}
1849 \mdsy@DeclareSymbol{tfint}{largesymbols}{\mathop}
1850 \mdsy@DeclareSymbol{dfint}{largesymbols}{\mathop}
1851 \mdsy@DeclareSymbol{toint}{largesymbols}{\mathop}
1852 \mdsy@DeclareSymbol{doint}{largesymbols}{\mathop}
1853 \mdsy@DeclareSymbol{toiint}{largesymbols}{\mathop}
1854 \mdsy@DeclareSymbol{doiint}{largesymbols}{\mathop}
1855 \mdsy@DeclareSymbol{toiiint}{largesymbols}{\mathop}
1856 \mdsy@DeclareSymbol{doiiint}{largesymbols}{\mathop}
1857 \mdsy@DeclareSymbol{trcircularrightint}{largesymbols}{\mathop}
1858 \mdsy@DeclareAlias{tointctrcclockwise}{largesymbols}{\mathop}
1859 \mdsy@DeclareSymbol{drcircularrightint}{largesymbols}{\mathop}
1860 \mdsy@DeclareAlias{dointctrcclockwise}{largesymbols}{\mathop}
1861 \mdsy@DeclareSymbol{tlcircularrightint}{largesymbols}{\mathop}
1862 \mdsy@DeclareAlias{tvarointclockwise}{largesymbols}{\mathop}
1863 \mdsy@DeclareSymbol{dlcircularrightint}{largesymbols}{\mathop}
1864 \mdsy@DeclareAlias{dvarointclockwise}{largesymbols}{\mathop}
1865 \mdsy@DeclareSymbol{trcircleleftint}{largesymbols}{\mathop}
1866 \mdsy@DeclareAlias{tvarointctrcclockwise}{largesymbols}{\mathop}
1867 \mdsy@DeclareSymbol{drcircleleftint}{largesymbols}{\mathop}
1868 \mdsy@DeclareAlias{dvarointctrcclockwise}{largesymbols}{\mathop}
1869 \mdsy@DeclareSymbol{tlcircleleftint}{largesymbols}{\mathop}
1870 \mdsy@DeclareAlias{tointclockwise}{largesymbols}{\mathop}
1871 \mdsy@DeclareSymbol{dlcircleleftint}{largesymbols}{\mathop}
1872 \mdsy@DeclareAlias{dointclockwise}{largesymbols}{\mathop}
1873 \mdsy@DeclareSymbol{tsumint}{largesymbols}{\mathop}
1874 \mdsy@DeclareSymbol{dsumint}{largesymbols}{\mathop}
1875 %\let\intop\tint
1876 %\let\ointop\toint

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1877

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1878 \mdsy@DeclareOperator{bigplus}{\dbigplus}{\tbigplus}
1879 \mdsy@DeclareOperator{bigtimes}{\dbigtimes}{\tbigtimes}
1880 \mdsy@DeclareOperator{bigwedge}{\dbigwedge}{\tbigwedge}
1881 \mdsy@DeclareOperator{bigvee}{\dbigvee}{\tbigvee}
1882 \mdsy@DeclareOperator{bigwedgedot}{\dbigwedgedot}{\tbigwedgedot}
1883 \mdsy@DeclareOperator{bigveedot}{\dbigveedot}{\tbigveedot}
1884 \mdsy@DeclareOperator{bigdoublewedge}{\dbigdoublewedge}{\tbigdoublewedge}
1885 \mdsy@DeclareOperator{conjquant}{\dconjquant}{\tconjquant}
1886 \mdsy@DeclareOperator{bigdoublevee}{\dbigdoublevee}{\tbigdoublevee}
1887 \mdsy@DeclareOperator{disjquant}{\ddisjquant}{\tdisjquant}
1888 \mdsy@DeclareOperator{bigcurlywedge}{\dbigcurlywedge}{\tbigcurlywedge}
1889 \mdsy@DeclareOperator{bigcurlyvee}{\dbigcurlyvee}{\tbigcurlyvee}
1890 \mdsy@DeclareOperator{bigcurlywedgedot}{\dbigcurlywedgedot}{\tbigcurlywedgedot}
1891 \mdsy@DeclareOperator{bigcurlyveedot}{\dbigcurlyveedot}{\tbigcurlyveedot}
1892 \mdsy@DeclareOperator{bigdoublecurlywedge}{\dbigdoublecurlywedge}{\tbigdoublecurlywed}
1893 \mdsy@DeclareOperator{bigdoublecurlyvee}{\dbigdoublecurlyvee}{\tbigdoublecurlyvee}
1894 \mdsy@DeclareOperator{bigcap}{\dbigcap}{\tbigcap}
1895 \mdsy@DeclareOperator{bigcup}{\dbigcup}{\tbigcup}
1896 \mdsy@DeclareOperator{bigcapdot}{\dbigcapdot}{\tbigcapdot}
1897 \mdsy@DeclareOperator{bigcupdot}{\dbigcupdot}{\tbigcupdot}
1898 \mdsy@DeclareOperator{bigcapplus}{\dbigcapplus}{\tbigcapplus}
1899 \mdsy@DeclareOperator{bigcupplus}{\dbigcupplus}{\tbigcupplus}
1900 \mdsy@DeclareOperator{biguplus}{\dbiguplus}{\tbiguplus}
1901 \mdsy@DeclareOperator{bigsqcap}{\dbigsqcap}{\tbigsqcap}
1902 \mdsy@DeclareOperator{bigsqcup}{\dbigsqcup}{\tbigsqcup}
1903 \mdsy@DeclareOperator{bigsqcapdot}{\dbigsqcapdot}{\tbigsqcapdot}
1904 \mdsy@DeclareOperator{bigsqcupdot}{\dbigsqcupdot}{\tbigsqcupdot}
1905 \mdsy@DeclareOperator{bigsqcapplus}{\dbigsqcapplus}{\tbigsqcapplus}
1906 \mdsy@DeclareOperator{bigsqcupplus}{\dbigsqcupplus}{\tbigsqcupplus}
1907 \mdsy@DeclareOperator{bigoplus}{\dbigoplus}{\tbigoplus}
1908 \mdsy@DeclareOperator{bigotimes}{\dbigotimes}{\tbigotimes}
1909 \mdsy@DeclareOperator{bigodot}{\dbigodot}{\tbigodot}
1910 \mdsy@DeclareOperator{bigoast}{\dbigoast}{\tbigoast}
1911 \mdsy@DeclareOperator{sum}{\dsum}{\tsum}
1912 \mdsy@DeclareOperator{osum}{\dosum}{\tosum}
1913 \mdsy@DeclareOperator{modtwosum}{\dmodtwosum}{\tmodtwosum}
1914 \mdsy@DeclareOperator{prod}{\dprod}{\tprod}
1915 \mdsy@DeclareOperator{coprod}{\dcoprod}{\tcoprod}
1916 \mdsy@DeclareIntegral{int}{\dint}{\tint}
1917 \mdsy@DeclareIntegral{iint}{\diint}{\tiint}
1918 \mdsy@DeclareIntegral{iiint}{\diiint}{\tiiint}
1919 \mdsy@DeclareIntegral{iiiint}{\diiiint}{\tiiiint}
1920 \mdsy@DeclareIntegral{idotsint}{\didotsint}{\tidotsint}
1921 \mdsy@DeclareIntegral{dotsint}{\ddotsint}{\tdotsint}

```

```

1922 \mdsy@DeclareIntegral{landupint}{\dlandupint}{\tlandupint}
1923 \mdsy@DeclareIntegral{intclockwise}{\dintclockwise}{\tintclockwise}
1924 \mdsy@DeclareIntegral{landdownint}{\dlanddownint}{\tlanddownint}
1925 \mdsy@DeclareIntegral{awint}{\dawint}{\tawint}
1926 \mdsy@DeclareIntegral{intctrclockwise}{\dintctrclockwise}{\tintctrclockwise}
1927 \mdsy@DeclareIntegral{landdownint}{\dlanddownint}{\tlanddownint}
1928 \mdsy@DeclareIntegral{intbar}{\dintbar}{\tintbar}
1929 \mdsy@DeclareIntegral{intBar}{\dintBar}{\tintBar}
1930 \mdsy@DeclareIntegral{fint}{\dfint}{\tfint}
1931 \mdsy@DeclareIntegral{oint}{\dooint}{\tooint}
1932 \mdsy@DeclareIntegral{oiint}{\doiint}{\toiint}
1933 \mdsy@DeclareIntegral{oiint}{\doiint}{\toiint}
1934 \mdsy@DeclareIntegral{oiint}{\doiint}{\toiint}
1935 \mdsy@DeclareIntegral{rcircclerightint}{\drcircclerightint}{\trcircclerightint}
1936 \mdsy@DeclareIntegral{ointctrclockwise}{\doointctrclockwise}{\toointctrclockwise}
1937 \mdsy@DeclareIntegral{lcircclerightint}{\dlcircclerightint}{\tlcircclerightint}
1938 \mdsy@DeclareIntegral{varointclockwise}{\dvarointclockwise}{\tvarointclockwise}
1939 \mdsy@DeclareIntegral{rcircleleftint}{\drcircleleftint}{\trcircleleftint}
1940 \mdsy@DeclareIntegral{varointctrclockwise}{\dvarointctrclockwise}{\tvarointctrclockwise}
1941 \mdsy@DeclareIntegral{lcircleleftint}{\dlcircleleftint}{\tlcircleleftint}
1942 \mdsy@DeclareIntegral{ointclockwise}{\doointclockwise}{\toointclockwise}
1943 \mdsy@DeclareIntegral{sumint}{\dsumint}{\tsumint}
1944
1945 \mdsy@renewcommand{intkern@}{\mkern-8.5mu\mathchoice{\mkern-1mu}{\mkern-1mu}{\mkern-1mu}}
1946 \mdsy@renewcommand{intdots@}{\mkern-6mu%
1947   \mathchoice{\@cdots}%
1948   {\{\cdotp\}\mkern0.5mu{\cdotp}\mkern0.5mu{\cdotp}}%
1949   {\{\cdotp\}{\cdotp}{\cdotp}}%
1950   {\{\cdotp\}{\cdotp}{\cdotp}}%
1951   \mkern-6mu}

Math accents.
1952 \mdsy@DeclareMathAccent{widehat}{\mathord}{\largesymbols}{"72}
1953 \mdsy@DeclareMathAccent{widetilde}{\mathord}{\largesymbols}{"78}
1954 \mdsy@DeclareMathAccent{wideparen}{\mathord}{\largesymbols}{"7E}
1955 \mdsy@DeclareMathAccent{vec}{\mathord}{\largesymbols}{"84}
1956 \mdsy@DeclareMathAccent{middlebar}{\mathord}{\largesymbols}{"85}
1957 \mdsy@DeclareMathAccent{middleslash}{\mathord}{\largesymbols}{"86}
1958 \mdsy@DeclareMathAccent{strokethrough}{\mathord}{\largesymbols}{"87}

MdSymbolF: delimiters
1959 \ifmdsy@largedelims
1960 % \mdsy@DeclareOpen{(){delimiters}}{"01}
1961 % \mdsy@DeclareClose{){delimiters}}{"07}
1962 \mdsy@DeclareOpen{[paren}{delimiters}{"01}
1963 \mdsy@DeclareClose{]rparen}{delimiters}{"07}
1964 % \mdsy@DeclareOpen{[]}{delimiters}{"13}

```



```

1965 % \mdsy@DeclareClose[]}{delimiters}{19}
1966 \mdsy@DeclareOpen{lbrack}{delimiters}{13}
1967 \mdsy@DeclareClose{rbrack}{delimiters}{19}
1968 \mdsy@DeclareOpen{lfloor}{delimiters}{1F}
1969 \mdsy@DeclareClose{rfloor}{delimiters}{25}
1970 \mdsy@DeclareOpen{lceil}{delimiters}{2B}
1971 \mdsy@DeclareClose{rceil}{delimiters}{31}
1972 \mdsy@DeclareOpen{ulcorner}{delimiters}{37}
1973 \mdsy@DeclareClose{urcorner}{delimiters}{3D}
1974 \mdsy@DeclareOpen{llcorner}{delimiters}{43}
1975 \mdsy@DeclareClose{lrcorner}{delimiters}{49}
1976 \mdsy@DeclareOpen{ullcorner}{delimiters}{4F}
1977 \mdsy@DeclareClose{ulrcorner}{delimiters}{55}
1978 \mdsy@DeclareOpen{lsem}{delimiters}{61}
1979 \mdsy@DeclareClose{rsem}{delimiters}{67}
1980 \mdsy@DeclareOpen{lBrack}{delimiters}{61}
1981 \mdsy@DeclareClose{rBrack}{delimiters}{67}
1982 \mdsy@DeclareOpen{lbrace}{delimiters}{73}
1983 \mdsy@DeclareClose{rbrace}{delimiters}{79}
1984 % \mdsy@DeclareOpen{<}{delimiters}{86}
1985 % \mdsy@DeclareClose{>}{delimiters}{8C}
1986 \mdsy@DeclareOpen{langle}{delimiters}{86}
1987 \mdsy@DeclareClose{rangle}{delimiters}{8C}
1988 \mdsy@DeclareOpen{lAngle}{delimiters}{92}
1989 \mdsy@DeclareClose{rAngle}{delimiters}{98}
1990 \mdsy@DeclareOpen{langledot}{delimiters}{9E}
1991 \mdsy@DeclareClose{rangledot}{delimiters}{A4}
1992 % \mdsy@DeclareDelimiter{/}{\mathord}{delimiters}{AA}
1993 \mdsy@DeclareDelimiter{mathslash}{\mathord}{delimiters}{AA}
1994 \mdsy@DeclareMathSymbol{divslash}{\mathbin}{delimiters}{AA}
1995 \mdsy@DeclareDelimiter{backslash}{\mathord}{delimiters}{B0}
1996 % \expandafter\DeclareMathDelimiter\@backslashchar%
1997 % {\mathord}{delimiters}{B0}{delimiters}{B0}
1998 \mdsy@DeclareMathSymbol{setminus}{\mathbin}{delimiters}{B0}
1999 % \mdsy@DeclareDelimiter{|}{\mathord}{delimiters}{B7}
2000 \mdsy@DeclareDelimiter{vert}{\mathord}{delimiters}{B7}
2001 \mdsy@DeclareOpen{lvert}{delimiters}{B7}
2002 \mdsy@DeclareClose{rvert}{delimiters}{B7}
2003 \mdsy@DeclareMathSymbol{mid}{\mathrel}{delimiters}{B7}
2004 \mdsy@DeclareMathSymbol{nmid}{\mathrel}{delimiters}{BA}
2005 \mdsy@DeclareDelimiter{Vert}{\mathord}{delimiters}{BE}
2006 \mdsy@DeclareOpen{lVert}{delimiters}{BE}
2007 \mdsy@DeclareClose{rVert}{delimiters}{BE}
2008 \mdsy@DeclareMathSymbol{parallel}{\mathrel}{delimiters}{BE}
2009 \mdsy@DeclareMathSymbol{nparallel}{\mathrel}{delimiters}{C1}

```

```

2010 \mdsy@DeclareDelimiter{Vvert}{\mathord}{delimiters}{C4}
2011 \mdsy@DeclareOpen{lVvert}{delimiters}{C4}
2012 \mdsy@DeclareClose{rVvert}{delimiters}{C4}
2013 \else
2014 % \mdsy@DeclareOpen{(){delimiters}{00}
2015 % \mdsy@DeclareClose{(){delimiters}{06}
2016 \mdsy@DeclareOpen{lparen}{delimiters}{00}
2017 \mdsy@DeclareClose{rparen}{delimiters}{06}
2018 % \mdsy@DeclareOpen{[]}{delimiters}{12}
2019 % \mdsy@DeclareClose{[]}{delimiters}{18}
2020 \mdsy@DeclareOpen{lbrack}{delimiters}{12}
2021 \mdsy@DeclareClose{rbrack}{delimiters}{18}
2022 \mdsy@DeclareOpen{lfloor}{delimiters}{1E}
2023 \mdsy@DeclareClose{rfloor}{delimiters}{24}
2024 \mdsy@DeclareOpen{lceil}{delimiters}{2A}
2025 \mdsy@DeclareClose{rceil}{delimiters}{30}
2026 \mdsy@DeclareOpen{ulcorner}{delimiters}{36}
2027 \mdsy@DeclareClose{urcorner}{delimiters}{3C}
2028 \mdsy@DeclareOpen{llcorner}{delimiters}{42}
2029 \mdsy@DeclareClose{lrcorner}{delimiters}{48}
2030 \mdsy@DeclareOpen{ullcorner}{delimiters}{4E}
2031 \mdsy@DeclareClose{ulrcorner}{delimiters}{54}
2032 \mdsy@DeclareOpen{lsem}{delimiters}{60}
2033 \mdsy@DeclareClose{rsem}{delimiters}{66}
2034 \mdsy@DeclareOpen{lBrack}{delimiters}{60}
2035 \mdsy@DeclareClose{rBrack}{delimiters}{66}
2036 \mdsy@DeclareOpen{lbrace}{delimiters}{72}
2037 \mdsy@DeclareClose{rbrace}{delimiters}{78}
2038 % \mdsy@DeclareOpen{<}{delimiters}{85}
2039 % \mdsy@DeclareClose{>}{delimiters}{8B}
2040 \mdsy@DeclareOpen{langle}{delimiters}{85}
2041 \mdsy@DeclareClose{rangle}{delimiters}{8B}
2042 \mdsy@DeclareOpen{lAngle}{delimiters}{91}
2043 \mdsy@DeclareClose{rAngle}{delimiters}{97}
2044 \mdsy@DeclareOpen{langledot}{delimiters}{9D}
2045 \mdsy@DeclareClose{rangledot}{delimiters}{A3}
2046 % \mdsy@DeclareDelimiter{/}{\mathord}{delimiters}{A9}
2047 \mdsy@DeclareDelimiter{mathslash}{\mathord}{delimiters}{A9}
2048 \mdsy@DeclareMathSymbol{divslash}{\mathbin}{delimiters}{A9}
2049 \mdsy@DeclareDelimiter{backslash}{\mathord}{delimiters}{AF}
2050 % \expandafter\DeclareMathDelimiter\@backslashchar%
2051 % {\mathord}{delimiters}{AF}{delimiters}{AF}
2052 \mdsy@DeclareMathSymbol{setminus}{\mathbin}{delimiters}{AF}
2053 % \mdsy@DeclareDelimiter{|}{\mathord}{delimiters}{B6}
2054 \mdsy@DeclareDelimiter{vert}{\mathord}{delimiters}{B6}

```

```

2055 \mdsy@DeclareOpen{lvert}{delimiters}{B6}
2056 \mdsy@DeclareClose{rvert}{delimiters}{B6}
2057 \mdsy@DeclareMathSymbol{mid}{\mathrel}{delimiters}{B6}
2058 \mdsy@DeclareMathSymbol{nmid}{\mathrel}{delimiters}{B9}
2059 \mdsy@DeclareDelimiter{Vert}{\mathord}{delimiters}{BD}
2060 \mdsy@DeclareOpen{lVert}{delimiters}{BD}
2061 \mdsy@DeclareClose{rVert}{delimiters}{BD}
2062 \mdsy@DeclareMathSymbol{parallel}{\mathrel}{delimiters}{BD}
2063 \mdsy@DeclareMathSymbol{nparallel}{\mathrel}{delimiters}{C0}
2064 \mdsy@DeclareDelimiter{Vvert}{\mathord}{delimiters}{C3}
2065 \mdsy@DeclareOpen{lVvert}{delimiters}{C3}
2066 \mdsy@DeclareClose{rVvert}{delimiters}{C3}
2067 \fi
2068 \let\\Vert
2069 \mdsy@renewcommand{divides}{\mid}
2070 \mdsy@renewcommand{ndivides}{\nmid}
2071 \mdsy@DeclareMathSymbol{shortmid}{\mathrel}{delimiters}{B5}
2072 \mdsy@DeclareMathSymbol{nshortmid}{\mathrel}{delimiters}{B8}
2073 \mdsy@DeclareMathSymbol{shortparallel}{\mathrel}{delimiters}{BC}
2074 \mdsy@DeclareMathSymbol{nshortparallel}{\mathrel}{delimiters}{BF}
2075 \mdsy@DeclareDelimiter{arrowvert}{\mathord}{delimiters}{BB}
2076 \mdsy@DeclareDelimiter{Arrowvert}{\mathord}{delimiters}{C2}
2077 \mdsy@DeclareClose{lgroup}{delimiters}{7E}
2078 \mdsy@DeclareOpen{rgroup}{delimiters}{7F}
2079 \mdsy@DeclareClose{rmoustache}{delimiters}{80}
2080 \mdsy@DeclareOpen{lmoustache}{delimiters}{81}
2081 \mdsy@DeclareDelimiter{bracevert}{\mathord}{delimiters}{84}
2082
2083 \mdsy@DeclareMathDelimiter{uparrow}{\mathrel}{arrows}{01}{delimiters}{C6}
2084 \mdsy@DeclareMathDelimiter{downarrow}{\mathrel}{arrows}{03}{delimiters}{C7}
2085 \mdsy@DeclareMathDelimiter{updownarrow}{\mathrel}{arrows}{11}{delimiters}{C8}
2086 \mdsy@DeclareMathDelimiter{Uparrow}{\mathrel}{arrows}{09}{delimiters}{C9}
2087 \mdsy@DeclareMathDelimiter{Downarrow}{\mathrel}{arrows}{0B}{delimiters}{CA}
2088 \mdsy@DeclareMathDelimiter{Updownarrow}{\mathrel}{arrows}{15}{delimiters}{CB}

Horizontal braces.
2089 \mdsy@DeclareMathSymbol{braceld}{\mathord}{delimiters}{CC}
2090 \mdsy@DeclareMathSymbol{bracelu}{\mathord}{delimiters}{CD}
2091 \mdsy@DeclareMathSymbol{bracerd}{\mathord}{delimiters}{CE}
2092 \mdsy@DeclareMathSymbol{braceru}{\mathord}{delimiters}{CF}
2093 \mdsy@DeclareMathSymbol{bracemd}{\mathord}{delimiters}{D0}
2094 \mdsy@DeclareMathSymbol{bracemu}{\mathord}{delimiters}{D1}
2095 \mdsy@DeclareMathSymbol{bracemid}{\mathord}{delimiters}{D2}
2096
2097 \mdsy@DeclareRobustCommandArg{bracefill@}{5}{%
2098   $\m@th#5#1\leaders\hbox{$#4$}\hfill#2\leaders\hbox{$#4$}\hfill#3$%

```

```

2099 }
2100 \mdsy@renewcommand{downbracefill@}{\bracefill@\braceld\bracemd\bracerd\bracemid}
2101 \mdsy@renewcommand{upbracefill@}{\bracefill@\bracelu\bracemu\braceru\bracemid}
2102 \mdsy@renewcommand{downgroupfill@}{\bracefill@\braceld{}\bracerd\bracemid}
2103 \mdsy@renewcommand{upgroupfill@}{\bracefill@\bracelu{}\braceru\bracemid}
2104 \mdsy@renewcommand{linesegmentfill@}{\arrowfill@\leftfootline\relbar\rightfootline}
2105 \mdsy@renewcommand{leftharpoonfill@}{\arrowfill@\leftharpoondown\relbar\relbar}
2106 \mdsy@renewcommand{rightharpoonfill@}{\arrowfill@\relbar\relbar\rightharpoonup}
2107
2108 \mdsy@DeclareRobustCommandArg{overbrace}{1}{%
2109   \mathop{\mathpalette{\overarrow@downbracefill@}{#1}}\limits%
2110 }
2111 \mdsy@DeclareRobustCommandArg{underbrace}{1}{%
2112   \mathop{\mathpalette{\underarrow@upbracefill@}{#1}}\limits%
2113 }
2114 \mdsy@DeclareRobustCommand{overgroup}{\mathpalette{\overarrow@downgroupfill@}}
2115 \mdsy@DeclareRobustCommand{undergroup}{\mathpalette{\underarrow@upgroupfill@}}
2116 \mdsy@DeclareRobustCommand{overlinesegment}{\mathpalette{\overarrow@linesegmentfill@}}
2117 \mdsy@DeclareRobustCommand{overleftharpoon}{\mathpalette{\overarrow@leftharpoonfill@}}
2118 \mdsy@DeclareRobustCommand{overrightharpoon}{\mathpalette{\overarrow@rightharpoonfill@}}
2119 \mdsy@DeclareRobustCommand{underlinesegment}{\mathpalette{\underarrow@linesegmentfill@}}

```

Radical symbols.

```

2120 \ifmdsy@largedelims
2121   \mdsy@DeclareMathRadical{sqrtsgn}{delimiters}{D4}{delimiters}{D4}
2122   \mdsy@DeclareMathSymbol{surd}{\mathop}{delimiters}{D4}
2123 \else
2124   \mdsy@DeclareMathRadical{sqrtsgn}{delimiters}{D3}{delimiters}{D3}
2125   \mdsy@DeclareMathSymbol{surd}{\mathop}{delimiters}{D3}
2126 \fi

```

In the n -th root, we don't want the n to come too close to the radical (adopted from package lucimtx).

```

2127 \mdsy@DeclareRobustCommandArg{r@t}{2}{\setbox\z@\hbox{\$m@th#1\sqrt{#2}$}%
2128   \dimen@ \ht\z@ \advance\dimen@-\dp\z@
2129   \mkern5mu\raise.6\dimen@copy\rootbox \mkern-8mu\box\z@}

```

Mathchars. If onlysansmath, we make certain single characters active to react on the mathversion.

```

2130 \AtBeginDocument{%
2131   \mdsy@DeclareActiveMathSymbol{+}{\mathbin}{symbols}{11}
2132   \mdsy@DeclareActiveMathSymbol{-}{\mathbin}{symbols}{0E}
2133   \mdsy@DeclareActiveMathSymbol{*}{\mathbin}{symbols}{98}
2134   \mdsy@DeclareActiveMathSymbol{:}{\mathrel}{symbols}{02}
2135   \mdsy@DeclareActiveMathSymbol{=}{\mathrel}{relations}{00}
2136   \mdsy@DeclareActiveMathSymbol{<}{\mathrel}{relations}{24}
2137   \mdsy@DeclareActiveMathSymbol{>}{\mathrel}{relations}{25}

```

```

2138 \ifmdsy@largedelims
2139 \mdsy@DeclareActiveMathDelimiter{||}{\mathord}{delimiters}{B7}
2140 \mdsy@DeclareActiveMathDelimiter{(}{\mathopen}{delimiters}{01}
2141 \mdsy@DeclareActiveMathDelimiter{)}{\mathclose}{delimiters}{07}
2142 \mdsy@DeclareActiveMathDelimiter{[}{\mathopen}{delimiters}{13}
2143 \mdsy@DeclareActiveMathDelimiter{]}\mathclose}{delimiters}{19}
2144 \mdsy@DeclareActiveMathDelimiter{/}{\mathord}{delimiters}{AA}
2145 \else
2146 \mdsy@DeclareActiveMathDelimiter{||}{\mathord}{delimiters}{B6}
2147 \mdsy@DeclareActiveMathDelimiter{(}{\mathopen}{delimiters}{00}
2148 \mdsy@DeclareActiveMathDelimiter{)}{\mathclose}{delimiters}{06}
2149 \mdsy@DeclareActiveMathDelimiter{[}{\mathopen}{delimiters}{12}
2150 \mdsy@DeclareActiveMathDelimiter{]}\mathclose}{delimiters}{18}
2151 \mdsy@DeclareActiveMathDelimiter{/}{\mathord}{delimiters}{A9}
2152 \fi
2153 \ifmdsy@onlysansmath

amsmath and amsopn define commands which use the mathcode of some of the
symbols above to define new math characters. Since the mathcode is out of the range
(made active), this fails. So change the commands and make the definitions at the begin
of the document.

2154 \def\resetMathstrut@{%
2155 \setbox\z@\hbox{%
2156 \ifmathversionsans{%
2157 \mathchardef\@tempa\csname{@new\endcsname}%
2158 }{%
2159 \mathchardef\@tempa\csname{@old\endcsname}%
2160 }
2161 \def\@tempb##1"##2##3{\the\textfont"##3\char"}%
2162 \expandafter\@tempb\meaning\@tempa \relax
2163 }%
2164 \ht\Mathstrutbox@ht\z@ \dp\Mathstrutbox@dp\z@
2165 }
2166 \renewcommand{\std@minus}{-}
2167 \renewcommand{\std@equal}{=}
2168 \gdef\newmcodes@{\mathcode'\39\mathcode'\*42\mathcode'\."613A%
2169 \ifnum\mathcode'\-45 \else
2170 \renewcommand{\std@minus}{-}\relax
2171 \fi
2172 \mathcode'\-45\mathcode'\47\mathcode'\:"603A\relax}
2173 \fi
2174 }

```

There is no `\not` symbol in MdSymbol since all relational symbols come with a stroked companion. For compatibility we define a `\not` command that places a virgule over the following symbol.

```

2175 \mdsy@DeclareRobustCommandArg{c@ncel}{2}{\m@th\oalign{${\hfil#1/\hfil$\crrc$#1#2$}}
2176 \mdsy@DeclareRobustCommandArg{not}{1}{\mathrel{\m@th\mathpalette\c@ncel{#1}}}
2177 \end{style}

```