

# FdSymbol: A Math Symbol Font

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## 1 Introduction

FdSymbol is a font of mathematical symbols designed as a companion to Typotheque’s Fedra family<sup>1</sup>, but it might also fit well to other contemporary typefaces. To use this font in a L<sup>A</sup>T<sub>E</sub>X document, add the command

```
\usepackage[options]{fdsymbol}
```

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<sup>1</sup><http://www.typotheque.com/fonts>

to the preamble of your document. This redefines most of the standard mathematical symbols and makes available many new ones (see Section 4). For the available options see Section 3.

### Acknowledgements

The FdSymbol font is derived from MnSymbol<sup>2</sup>, another math symbol font, designed by Achim Blumensath.

## 2 Interferences with other packages

The fdsymbol 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 fdsymbol or you can include the options in the `\documentclass` command.

## 3 Font selection

FdSymbol comes in four weights, which are (in increasing order) Book, Regular, Medium and Bold. Of these, Book and Regular are suitable for normal math typesetting, while Medium 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 Medium weight as the normal weight in math, add `normalweight=Medium` to the package options. Analogously, to use the Bold weight with `\boldmath` or `\boldsymbol`, add `boldweight=Bold` to the package options. By default, Book and Medium are used. Additionally, it is possible to use a suitable weight automatically depending on the font size by selecting `auto`. For example, if you use the option `normalweight=auto`, the Book weight will be used for normal and large sizes, but the Regular weight will be used for small sizes (e.g. in sub- and superscripts).

In order to use FdSymbol 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 FdSymbol with a text font that has rather tall delimiters, such as Fedra Serif B. In fact, the height of normal delimiters will match the height of text delimiters in Fedra Serif B if you select this option.

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<sup>2</sup><http://www.ctan.org/tex-archive/fonts/mnsymbol/>

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

Key	Values
<code>normalweight</code>	Book*, Regular, auto
<code>boldweight</code>	Medium*, Bold, auto
<code>scale</code>	$\langle factor \rangle$
<code>largedelims</code>	true, false*

## 4 Symbols

The `fdsymbol` package provides the following symbols.

### 4.1 Ordinary symbols

$\cdots$ <code>\hdots</code>	$\blacklozenge$ <code>\smallblacklozenge,</code> <code>\smbklozenge</code>
$\vdots$ <code>\vdots</code>	$\diamond$ <code>\medlozenge, \lozenge,</code> <code>\mdlgwhtlozenge,</code> <code>\mdwhtlozenge</code>
$\cdot\cdot$ <code>\udots, \adots</code>	$\blacklozenge$ <code>\medblacklozenge,</code> <code>\blacklozenge,</code> <code>\mdlgblklozenge,</code> <code>\mdblklozenge</code>
$\ddots$ <code>\ddots</code>	$\lozenge$ <code>\lozengeminus</code>
$\therefore$ <code>\righttherefore</code>	$\star$ <code>\largewhitestar</code>
$\uptherefore$ <code>\uptherefore, \therefore</code>	$\bigstar$ <code>\largeblackstar, \bigstar</code>
$\lefttherefore$ <code>\lefttherefore</code>	$\infty$ <code>\infty</code>
$\downtherefore$ <code>\downtherefore, \because</code>	$\top$ <code>\top</code>
$\squaredots$ <code>\squaredots</code>	$\bot$ <code>\bot</code>
$\neg$ <code>\neg, \lnot</code>	$\angle$ <code>\angle</code>
$\backneg$ <code>\backneg, \invnot, \invneg</code>	$\sphericalangle$ <code>\sphericalangle</code>
$\turnedneg$ <code>\turnedneg, \turnednot</code>	$\sphericalangleleft$ <code>\sphericalangleleft,</code> <code>\revsphericalangle, \gtlpar</code>
$\turnedbackneg$ <code>\turnedbackneg</code>	
$\triangleup$ <code>\largetriangleup</code>	
$\triangledown$ <code>\largetriangleup</code>	
$\emptyset$ <code>\emptyset, \diameter,</code> <code>\varnothing</code>	
$\reemptyset$ <code>\reemptyset</code>	
$\bigcirc$ <code>\largecircle, \lgwhtcircle</code>	
$\bullet$ <code>\largeblackcircle</code>	
$\square$ <code>\largesquare, \lgwhtsquare</code>	
$\blacksquare$ <code>\largeblacksquare,</code> <code>\lgblklsquare</code>	
$\lozenge$ <code>\smalllozenge, \smwhtlozenge</code>	

$\sphericalangledown$	<code>\sphericalangledown</code>	$\forall$	<code>\forall</code>
$\rightangle$	<code>\rightangle</code>	$\exists$	<code>\exists</code>
$\measuredrightangle$	<code>\measuredrightangle</code>	$\nexists$	<code>\nexists</code>
$\rightanglesquare$	<code>\rightanglesquare</code>	$\Finv$	<code>\Finv</code>
$\measuredrightangledot$	<code>\measuredrightangledot</code>	$\Game$	<code>\Game</code>
$\rightanglemdot$	<code>\rightanglemdot</code>	$\complement$	<code>\complement</code>
$\prime$	<code>\prime</code>	$\flat$	<code>\flat</code>
$\backprime$	<code>\backprime</code>	$\natural$	<code>\natural</code>
$\checkmark$	<code>\checkmark</code>	$\sharp$	<code>\sharp</code>
$\lightning$	<code>\lightning</code>	$\aleph$	<code>\aleph</code>
$\downzigzagarrow$	<code>\downzigzagarrow</code>	$\beth$	<code>\beth</code>
$\diamondsuit$	<code>\diamondsuit</code>	$\gimel$	<code>\gimel</code>
$\vardiamondsuit$	<code>\vardiamondsuit</code>	$\daleth$	<code>\daleth</code>
$\heartsuit$	<code>\heartsuit</code>	$\wp$	<code>\wp</code>
$\varheartsuit$	<code>\varheartsuit</code>	$/$	<code>/, \mathslash</code>
$\spadesuit$	<code>\spadesuit</code>	$\backslash$	<code>\backslash</code>
$\clubsuit$	<code>\clubsuit</code>	$ $	<code> , \vert</code>
$\maltese$	<code>\maltese</code>	$\ $	<code>\ </code>
$\starofdavid$	<code>\starofdavid</code>	$\ $	<code>\ </code>
$\sector$	<code>\sector</code>	$\ $	<code>\ </code>

## 4.2 Binary operators

$\cdot$	<code>\cdot</code>	$\dot{+}$	<code>\dotplus</code>
$\centerdot$	<code>\centerdot</code>	$\div$	<code>\div</code>
$\hdotdot$	<code>\hdotdot</code>	$\ast$	<code>\divideontimes</code>
$\vdotdot$	<code>\vdotdot</code>	$\rightarrowtail$	<code>\minushookdown</code>
$\udotdot$	<code>\udotdot</code>	$\dashrightarrow$	<code>\hookdownminus</code>
$\ddotdot$	<code>\ddotdot</code>	$\dashrightarrow$	<code>\intprod, \minushookup</code>
$-$	<code>-, \minus</code>	$\dashrightarrow$	<code>\intprodr, \hookupminus</code>
$\medslash$	<code>\medslash, \smalldivslash</code>	$\times$	<code>\leftthreetimes</code>
$\backslash$	<code>\medbackslash, \smallsetminus</code>	$\times$	<code>\rightthreetimes</code>
$+$	<code>+, \plus</code>	$\times$	<code>\dtimes, \btimes</code>
$\times$	<code>\times</code>	$\times$	<code>\rtimes</code>
$\pm$	<code>\pm</code>	$\times$	<code>\utimes, \ttimes</code>
$\mp$	<code>\mp</code>	$\times$	<code>\ltimes</code>
$\dot{-}$	<code>\dotminus</code>	$\times$	<code>\lrtimes</code>
$\dot{-}$	<code>\minusdot</code>	$\times$	<code>\upbowtie, \hourglass</code>
$\dot{-}$	<code>\minusfdots</code>	$\times$	<code>\rightY</code>
$\dot{-}$	<code>\minusrdots</code>	$\times$	<code>\upY</code>
$\dot{-}$	<code>\dotsminusdots</code>	$\times$	<code>\leftY</code>

$\Uparrow$	<code>\downY</code>	$\blacktriangleleft$	<code>\smallblacktriangleleft</code>
$\wedge$	<code>\wedge, \land</code>	$\blacktriangledown$	<code>\smallblacktriangledown</code>
$\vee$	<code>\vee, \lor</code>	$\blacktriangleright$	<code>\medtriangleright, \triangleright</code>
$\wedge$	<code>\wedgedot</code>		<code>\triangleright</code>
$\vee$	<code>\veedot</code>	$\triangle$	<code>\medtriangleup, \triangle, \vartriangle</code>
$\underline{\vee}$	<code>\veebar</code>		<code>\vartriangle</code>
$\overline{\wedge}$	<code>\barwedge</code>	$\triangleleft$	<code>\medtriangleleft, \triangleleft</code>
$\vee$	<code>\veedoublebar</code>		<code>\triangleleft</code>
$\equiv$	<code>\doublebarwedge</code>	$\nabla$	<code>\medtriangledown, \triangledown</code>
$\pitchfork$	<code>\doublewedge, \wedgonwedge</code>		<code>\triangledown</code>
$\mathbb{W}$	<code>\doublevee, \veeonwee</code>	$\blacktriangleright$	<code>\medblacktriangleright, \blacktriangleright</code>
$\curlywedge$	<code>\curlywedge</code>		<code>\blacktriangleright</code>
$\curlyvee$	<code>\curlyvee</code>	$\blacktriangleup$	<code>\medblacktriangleup, \blacktriangleup</code>
$\curlywedgedot$	<code>\curlywedgedot</code>		<code>\blacktriangleup</code>
$\curlyveedot$	<code>\curlyveedot</code>	$\blacktriangleleft$	<code>\medblacktriangleleft, \blacktriangleleft</code>
$\doublecurlywedge$	<code>\doublecurlywedge</code>		<code>\blacktriangleleft</code>
$\doublecurlyvee$	<code>\doublecurlyvee</code>	$\blacktriangledown$	<code>\medblacktriangledown, \blacktriangledown</code>
$\cup$	<code>\cup</code>		<code>\blacktriangledown</code>
$\cap$	<code>\cap</code>	$\bigtriangleup$	<code>\bigtriangleup</code>
$\doublecup$	<code>\doublecup, \Cup</code>	$\bigtriangledown$	<code>\bigtriangledown</code>
$\doublecap$	<code>\doublecap, \Cap</code>	$\circ$	<code>\smallcircle, \circ, \smwhtcircle</code>
$\cup$	<code>\cupdot</code>		<code>\smwhtcircle</code>
$\cap$	<code>\capdot</code>	$\bullet$	<code>\smallblackcircle, \bullet, \smblkcicle</code>
$\cup$	<code>\cupplus, \uplus</code>		<code>\smblkcicle</code>
$\cap$	<code>\capplus</code>	$\bigcirc$	<code>\medcircle, \mdlgwhtcircle, \mdwhtcircle</code>
$\sqcup$	<code>\sqcup</code>		<code>\mdwhtcircle</code>
$\sqcap$	<code>\sqcap</code>	$\bullet$	<code>\medblackcircle, \mdlgblkcicle, \mdblkcicle</code>
$\doublecup$	<code>\doublecup, \Sqcup</code>		<code>\mdlgblkcicle, \mdblkcicle</code>
$\doublecap$	<code>\doublecap, \Sqcap</code>	$\ominus$	<code>\ominus</code>
$\sqcup$	<code>\sqcupdot</code>	$\oplus$	<code>\overt, \circledvert</code>
$\sqcap$	<code>\sqcapdot</code>		<code>\overt, \circledvert</code>
$\sqcup$	<code>\sqcupplus</code>	$\oslash$	<code>\oslash</code>
$\cap$	<code>\sqcapplus</code>		<code>\oslash</code>
$\lrcorner$	<code>\pullback</code>	$\otimes$	<code>\otimes</code>
$\rceil$	<code>\pushout</code>		<code>\otimes</code>
$\blacktriangleright$	<code>\smalltriangleright</code>	$\odot$	<code>\odot</code>
$\triangle$	<code>\smalltriangleup</code>		<code>\odot</code>
$\triangleleft$	<code>\smalltriangleleft</code>	$\odot$	<code>\ocirc, \circledcirc</code>
$\triangledown$	<code>\smalltriangledown</code>		<code>\ocirc, \circledcirc</code>
$\blacktriangleright$	<code>\smallblacktriangleright</code>	$\odot$	<code>\odash, \circleddash</code>
$\blacktriangleup$	<code>\smallblacktriangleup</code>		<code>\odash, \circleddash</code>
		$\odot$	<code>\oequal, \circledequal</code>
			<code>\odot</code>
		$\bigcirc$	<code>\bigcirc</code>
			<code>\bigcirc</code>
		$\square$	<code>\smallsquare, \smwhtsquare</code>
			<code>\smallsquare, \smwhtsquare</code>

■ \smallblacksquare,	◇ \diamondminus
\smbllksquare	◇ \diamondvert
□ \medsquare, \square, \Box,	◇ \diamondslash
\mdlgwhtsquare, \mdwhtsquare	◇ \diamondbackslash,
■ \medblacksquare,	\diamondbslash
\mdlgblksquare, \mdbllksquare	◇ \diamondplus
▢ \boxminus	◇ \diamondtimes
▣ \boxvert, \boxbar	◇ \diamondddot, \diamondcdot
▤ \boxslash, \boxdiag	◇ \diamondddiamond
▥ \boxbackslash, \boxbslash	☆ \smallwhitestar, \smwhitestar
▦ \boxplus	★ \smallblackstar, \star
▧ \boxtimes	☆ \medwhitestar
▨ \boxdot	★ \medblackstar, \medstar
▩ \boxbox	* *, \ast
◇ \smallldiamond, \diamond,	T \intercal
\smwhtdiamond	ˆ \wreath, \wr
◆ \smallblackdiamond,	⋈ \amalg
\blackdiamond, \smbllkdiamond	◁ \lhd
◇ \meddiamond, \Diamond,	▷ \rhd
\mdlgwhtdiamond,	≠ \unlhd
\mdwhtdiamond	≧ \unrhd
◆ \medblackdiamond,	/ \divslash
\mdlgblkdiamond,	\ \setminus
\mdbllkdiamond	

### 4.3 Relations

= \equal, \Relbar	≐ \bumpeq
:= \coloneq, \coloneqq	≐ \bumpeq
≡ \equiv	≐ \Bumpeq
~ \sim	≐ \doteq
↖ \backsim	≐ \eqdot
≈ \approx	≐ \Doteq
≐ \triplesim, \approxident	≐ \fallingdotseq
≈ \simeq	≐ \risingdotseq
≐ \backsimeq	☺ \smile, \smallsmile
≈ \eqsim	☹ \frown, \smallfrown
≐ \cong	☺ \smilefrown, \asymp
≐ \backcong	☹ \frownsmile, \closure
≐ \dotcong	≐ \smileeq
≐ \approxeq	≐ \frowneq, \arceq

$\#$	<code>\eqcirc</code>	$\sqsupset$	<code>\sqsupset</code>
$\circ$	<code>\circeq</code>	$\sqsubseteq$	<code>\sqsubseteq</code>
$\triangleq$	<code>\wedgeeq, \hateq</code>	$\sqsupseteq$	<code>\sqsupseteq</code>
$\equiv$	<code>\veeeq</code>	$\sqsubseteqeq$	<code>\sqsubseteqeq</code>
$\doteq$	<code>\stareq</code>	$\sqsupseteqeq$	<code>\sqsupseteqeq</code>
$\trianglelefteq$	<code>\triangleleeq, \triangleleq</code>	$\Ssubset$	<code>\Ssubset</code>
$\in$	<code>\in</code>	$\Ssupset$	<code>\Ssupset</code>
$\owns$	<code>\owns, \ni</code>	$\subset$	<code>\subset</code>
$<$	<code>&lt;, \less</code>	$\supset$	<code>\supset</code>
$>$	<code>&gt;, \gtr</code>	$\subseteq$	<code>\subseteq</code>
$\leq$	<code>\leq, \le</code>	$\supseteq$	<code>\supseteq</code>
$\geq$	<code>\geq, \ge</code>	$\subseteqeq$	<code>\subseteqeq</code>
$\leqslant$	<code>\leqslant</code>	$\supseteqeq$	<code>\supseteqeq</code>
$\geqslant$	<code>\geqslant</code>	$\Subset$	<code>\Subset</code>
$\leqq$	<code>\leqq</code>	$\Supset$	<code>\Supset</code>
$\geqq$	<code>\geqq</code>	$\prec$	<code>\prec</code>
$\lesssim$	<code>\lesssim</code>	$\succ$	<code>\succ</code>
$\gtrsim$	<code>\gtrsim</code>	$\preceq$	<code>\preceq</code>
$\lessapprox$	<code>\lessapprox</code>	$\succeq$	<code>\succeq</code>
$\gtrapprox$	<code>\gtrapprox</code>	$\preccurlyeq$	<code>\preccurlyeq</code>
$\lessgtr$	<code>\lessgtr</code>	$\succcurlyeq$	<code>\succcurlyeq</code>
$\gtrless$	<code>\gtrless</code>	$\preceqq$	<code>\preceqq</code>
$\lesseqgtr$	<code>\lesseqgtr</code>	$\succeqq$	<code>\succeqq</code>
$\gtreqless$	<code>\gtreqless</code>	$\prec\sim$	<code>\prec\sim</code>
$\lesseqqgtr$	<code>\lesseqqgtr</code>	$\succsim$	<code>\succsim</code>
$\gtreqqlless$	<code>\gtreqqlless</code>	$\precapprox$	<code>\precapprox</code>
$\lesseqqgtrslant$	<code>\lesseqqgtrslant</code>	$\succapprox$	<code>\succapprox</code>
$\gtreqqllessslant$	<code>\gtreqqllessslant</code>	$\lessdot$	<code>\lessdot</code>
$\ll$	<code>\ll</code>	$\gtrdot$	<code>\gtrdot</code>
$\gg$	<code>\gg</code>	$\leqdot$	<code>\leqdot</code>
$\lll, \llless$	<code>\lll, \llless</code>	$\geqdot$	<code>\geqdot</code>
$\ggg, \gggtr$	<code>\ggg, \gggtr</code>	$\leqslantdot, \lesdot$	<code>\leqslantdot, \lesdot</code>
$\lessclosed, \vartriangleleft$	<code>\lessclosed, \vartriangleleft</code>	$\geqslantdot, \gesdot$	<code>\geqslantdot, \gesdot</code>
$\gtrclosed, \vartriangleright$	<code>\gtrclosed, \vartriangleright</code>	$\leqslantless$	<code>\leqslantless</code>
$\leqclosed, \trianglelefteq$	<code>\leqclosed, \trianglelefteq</code>	$\leqslantgtr$	<code>\leqslantgtr</code>
$\geqclosed, \trianglerighteq$	<code>\geqclosed, \trianglerighteq</code>	$\curlyeqprec$	<code>\curlyeqprec</code>
$\lesscc, \ltcc$	<code>\lesscc, \ltcc</code>	$\curlyeqsucc$	<code>\curlyeqsucc</code>
$\gtrcc, \gtcc$	<code>\gtrcc, \gtcc</code>	$\thicksim$	<code>\thicksim</code>
$\leqslcc, \lescc$	<code>\leqslcc, \lescc</code>	$\thickapprox$	<code>\thickapprox</code>
$\geqslcc, \gescc$	<code>\geqslcc, \gescc</code>	$\rightarrow$	<code>\rightarrow, \to</code>
$\sqsubset$	<code>\sqsubset</code>	$\uparrow$	<code>\uparrow</code>





$\nearrow$	<code>\neswharpoonnwse</code>	$\nearrow$	<code>\nenearrows</code>
$\nwarrow$	<code>\nwseharpoonnesw</code>	$\nwarrow$	<code>\nwnwarrows</code>
$\rightarrow$	<code>\leftrightharpoondownup</code>	$\rightarrow$	<code>\swswarrows</code>
$\updownarrow$	<code>\updownharpoonrightleft</code>	$\rightarrow$	<code>\sesearrows</code>
$\nearrow$	<code>\neswharpoonsenw</code>	$\rightleftarrows$	<code>\rightleftarrows</code>
$\nwarrow$	<code>\nwseharpoonswne</code>	$\updownarrows$	<code>\updownarrows</code>
$\rightleftharpoons$	<code>\rightleftharpoons</code>	$\nearrow$	<code>\neswarrows</code>
$\updownharpoons$	<code>\updownharpoons,</code> <code>\updownharpoonsleftright</code>	$\nwarrow$	<code>\nwsearrows</code>
$\nearrow$	<code>\neswharpoons</code>	$\leftrightharpoons$	<code>\leftrightharpoons</code>
$\nwarrow$	<code>\senwharpoons</code>	$\updownarrows$	<code>\downuparrows</code>
$\leftrightharpoons$	<code>\leftrightharpoons</code>	$\nwarrow$	<code>\swnearrows</code>
$\updownharpoons$	<code>\downupharpoons,</code> <code>\downupharpoonsleftright</code>	$\nwarrow$	<code>\senwarrows</code>
$\nwarrow$	<code>\swneharpoons</code>	$\rightsquigarrow$	<code>\rightlsquigarrow, \leadsto,</code> <code>\rightsquigarrow</code>
$\nwarrow$	<code>\nwseharpoons</code>	$\uplsquigarrow$	<code>\uplsquigarrow</code>
$\rightarrow$	<code>\righttbkarrow, \dashrightarrow,</code> <code>\dasharrow</code>	$\leftlsquigarrow$	<code>\leftlsquigarrow</code>
$\uparrow$	<code>\upbkarrow</code>	$\downlsquigarrow$	<code>\downlsquigarrow</code>
$\leftarrow$	<code>\lefttbkarrow, \dashleftarrow</code>	$\rightsquigarrow$	<code>\righttrsquigarrow,</code>
$\downarrow$	<code>\downbkarrow</code>	$\uprsquigarrow$	<code>\uprsquigarrow</code>
$\nearrow$	<code>\nebkarrow</code>	$\lefttrsquigarrow$	<code>\lefttrsquigarrow,</code> <code>\leftsquigarrow</code>
$\nwarrow$	<code>\nwbkarrow</code>	$\downrsquigarrow$	<code>\downrsquigarrow</code>
$\nwarrow$	<code>\swbkarrow</code>	$\leftrightsquigarrow$	<code>\leftrightsquigarrow</code>
$\nwarrow$	<code>\sebkarrow</code>	$\updownsquigarrow$	<code>\updownsquigarrow</code>
$\rightarrow$	<code>\rightspoon, \multimap</code>	$\rightleftsquigarrow$	<code>\rightleftsquigarrow</code>
$\uparrow$	<code>\upspoon, \circmid</code>	$\downupsquigarrow$	<code>\downupsquigarrow</code>
$\leftarrow$	<code>\leftspoon, \multimapinv</code>	$\rightlcurvearrow$	<code>\rightlcurvearrow,</code> <code>\curvearrowright</code>
$\downarrow$	<code>\downspoon, \midcir</code>	$\uplcurvearrow$	<code>\uplcurvearrow</code>
$\rightarrow$	<code>\rightblackspoon</code>	$\leftlcurvearrow$	<code>\leftlcurvearrow</code>
$\uparrow$	<code>\upblackspoon</code>	$\downlcurvearrow$	<code>\downlcurvearrow,</code> <code>\cwrightarcarrow</code>
$\leftarrow$	<code>\leftblackspoon</code>	$\nelcurvearrow$	<code>\nelcurvearrow</code>
$\downarrow$	<code>\downblackspoon</code>	$\nwlcurevarearrow$	<code>\nwlcurevarearrow</code>
$\rightarrow$	<code>\rightpitchfork</code>	$\swlcurevarearrow$	<code>\swlcurevarearrow,</code> <code>\cwundercurvevarearrow</code>
$\uparrow$	<code>\uppitchfork, \pitchfork</code>	$\selcurvarearrow$	<code>\selcurvarearrow</code>
$\leftarrow$	<code>\leftpitchfork</code>	$\righttrcurvarearrow$	<code>\righttrcurvarearrow,</code> <code>\acwunderarcarrow</code>
$\Psi$	<code>\downpitchfork</code>	$\uprcurvarearrow$	<code>\uprcurvarearrow</code>
$\Rightarrow$	<code>\righttrightarrows</code>		
$\Uparrow$	<code>\upuparrows</code>		
$\Leftarrow$	<code>\leftleftarrows</code>		
$\Downarrow$	<code>\downdownarrows</code>		

	<code>\leftcurvedarrow,</code>		<code>\Rdsh</code>
	<code>\curvearrowleft,</code>		<code>\looparrowright</code>
	<code>\acwoverarcarrow</code>		<code>\looparrowleft</code>
	<code>\downrcurvedarrow,</code>	$\rightarrow$	<code>\longrightarrow</code>
	<code>\acwleftarcarrow</code>	$\leftarrow$	<code>\longleftarrow</code>
	<code>\nercurvedarrow</code>	$\longleftrightarrow$	<code>\longlefttrightarrow</code>
	<code>\nwrcurvedarrow</code>	$\Rightarrow$	<code>\Longrightarrow</code>
	<code>\swrcurvedarrow</code>	$\Leftarrow$	<code>\Longleftarrow</code>
	<code>\sercurvedarrow,</code>	$\Longleftrightarrow$	<code>\Longlefttrightarrow</code>
	<code>\ccwundercurvedarrow</code>	$\mapsto$	<code>\longmapsto</code>
	<code>\leftrighcurvedarrow</code>		<code>\emptyblackspoon,\origof</code>
	<code>\updowncurvedarrow</code>		<code>\filledemptyspoon,\imageof</code>
	<code>\rightleftcurvedarrow</code>		<code>\leftrightspoon,\dualmap</code>
	<code>\downupcurvedarrow</code>		<code>\leftrightblackspoon</code>
	<code>\neswcurvedarrow</code>	$\vdash$	<code>\rightvdash,\vdash,\assert</code>
	<code>\nwsecurvedarrow</code>	$\perp$	<code>\upvdash,\perp</code>
	<code>\swnecurvedarrow</code>	$\dashv$	<code>\leftvdash,\dashv</code>
	<code>\senwcurvedarrow</code>	$\top$	<code>\downvdash</code>
$\vdash$	<code>\leftfootline,\vlongdash</code>	$\models$	<code>\rightvDash,\vDash,\models</code>
$\dashv$	<code>\rightfootline,\vlongdashv</code>	$\perp$	<code>\upvDash,\Vbar</code>
	<code>\acwcirclearrowup</code>	$\dashv$	<code>\leftvDash,\Dashv</code>
	<code>\acwcirclearrowleft,</code>	$\top$	<code>\downvDash,\barV</code>
	<code>\circlearrowleft,</code>	$\Vdash$	<code>\rightVdash,\Vdash</code>
	<code>\acwopencirclearrow</code>	$\perp$	<code>\upVdash</code>
	<code>\acwcirclearrowdown,</code>	$\dashv$	<code>\leftVdash,\dashV</code>
	<code>\acwgapcirclearrow</code>	$\top$	<code>\downVdash</code>
	<code>\acwcirclearrowright</code>	$\Vdash$	<code>\rightVDash,\VDash</code>
	<code>\cwcirclearrowdown,</code>	$\perp$	<code>\upVDash</code>
	<code>\cwgapcirclearrow</code>	$\dashv$	<code>\leftVDash,\DashV</code>
	<code>\cwcirclearrowright,</code>	$\top$	<code>\downVDash</code>
	<code>\circlearrowright,</code>	$\Vdash$	<code>\Vvdash</code>
	<code>\cwopencirclearrow</code>	$\neq$	<code>\nequal,\neq,\ne</code>
	<code>\cwcirclearrowup</code>	$\neq$	<code>\nequiv</code>
	<code>\cwcirclearrowleft</code>	$\sim$	<code>\nsim</code>
$\Rightarrow$	<code>\Rrightarrow</code>	$\backsimeq$	<code>\nbacksim</code>
$\Uparrow$	<code>\Uparrow</code>	$\approx$	<code>\napprox</code>
$\Leftarrow$	<code>\Lleftarrow</code>	$\tripleapprox$	<code>\ntripleapprox</code>
$\Downarrow$	<code>\Ddownarrow</code>	$\simeq$	<code>\nsimeq,\nsime</code>
$\Lsh$	<code>\Lsh</code>	$\backsimeq$	<code>\nbacksimeq</code>
$\Rsh$	<code>\Rsh</code>	$\neqsim$	<code>\neqsim</code>
$\Ldsh$	<code>\Ldsh</code>	$\ncong$	<code>\ncong</code>

$\ncong$	<code>\backcong</code>	$\nlessgtr$	<code>\ngtreqqless</code>
$\napprox$	<code>\approxeq</code>	$\nlesseqgtr$	<code>\nlesseqgtrslant</code>
$\nbumpeq$	<code>\nbumpeq</code>	$\ngtreqless$	<code>\ngtreqlessslant</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>\ntriangleleft</code>
$\nfallingdotseq$	<code>\nfallingdotseq</code>	$\ngtrclosed$	<code>\ntriangleright</code>
$\nrisingdotseq$	<code>\nrisingdotseq</code>	$\nleqclosed$	<code>\ntrianglelefteq</code>
$\nsmile$	<code>\nsmile</code>	$\ngeqclosed$	<code>\ntrianglerighteq</code>
$\nfrown$	<code>\nfrown</code>	$\nlesscc$	<code>\nltcc</code>
$\nsmilefrown$	<code>\nasymp</code>	$\ngtrcc$	<code>\ngtcc</code>
$\nfrownsmile$	<code>\nclosure</code>	$\nleqslcc$	<code>\nlescc</code>
$\nsmileeq$	<code>\nsmileeq</code>	$\ngeqslcc$	<code>\ngescc</code>
$\nfrowneq$	<code>\narceq</code>	$\nsubset$	<code>\nsubset</code>
$\neqcirc$	<code>\neqcirc</code>	$\nsupset$	<code>\nsupset</code>
$\ncirceq$	<code>\ncirceq</code>	$\nsubseteq$	<code>\nsubseteq</code>
$\nwedgeq$	<code>\nhateq</code>	$\nsupseteq$	<code>\nsupseteq</code>
$\nveeeq$	<code>\nveeeq</code>	$\nsubseteqq$	<code>\nsubseteqq</code>
$\nstareq$	<code>\nstareq</code>	$\nsupseteqq$	<code>\nsupseteqq</code>
$\ntriangleleeq$	<code>\ntriangleleeq</code>	$\nSsubset$	<code>\nSsubset</code>
$\nin$	<code>\notin</code>	$\nSsupset$	<code>\nSsupset</code>
$\nowns$	<code>\nni</code>	$\nsubset$	<code>\nsubset</code>
$\nless$	<code>\nless</code>	$\nsupset$	<code>\nsupset</code>
$\ngtr$	<code>\ngtr</code>	$\nsubseteq$	<code>\nsubseteq</code>
$\nleq$	<code>\nleq</code>	$\nsupseteq$	<code>\nsupseteq</code>
$\ngeq$	<code>\ngeq</code>	$\nsubseteqq$	<code>\nsubseteqq</code>
$\nleqslant$	<code>\nleqslant</code>	$\nsupseteqq$	<code>\nsupseteqq</code>
$\ngeqslant$	<code>\ngeqslant</code>	$\nSubset$	<code>\nSubset</code>
$\nleqq$	<code>\nleqq</code>	$\nSupset$	<code>\nSupset</code>
$\ngeqq$	<code>\ngeqq</code>	$\nprec$	<code>\nprec</code>
$\nlesssim$	<code>\nlesssim</code>	$\nsucc$	<code>\nsucc</code>
$\ngtrsim$	<code>\ngtrsim</code>	$\npreceq$	<code>\npreceq</code>
$\nlessapprox$	<code>\nlessapprox</code>	$\nsucceq$	<code>\nsucceq</code>
$\ngtrapprox$	<code>\ngtrapprox</code>	$\npreccurlyeq$	<code>\npreccurlyeq</code>
$\nlessgtr$	<code>\nlessgtr</code>	$\nsucccurlyeq$	<code>\nsucccurlyeq</code>
$\ngtrless$	<code>\ngtrless</code>	$\npreceqq$	<code>\npreceqq</code>
$\nlesseqgtr$	<code>\nlesseqgtr</code>	$\nsucceqq$	<code>\nsucceqq</code>
$\ngtreqless$	<code>\ngtreqless</code>	$\nprecsim$	<code>\nprecsim</code>
$\nlesseqqgtr$	<code>\nlesseqqgtr</code>	$\nsuccsim$	<code>\nsuccsim</code>

$\nprecapprox$	$\nuparrow$
$\nsuccapprox$	$\nleftarrow, \ngets$
$\nlessdot$	$\ndownarrow$
$\ngtrdot$	$\nrightarrow$
$\nleqdot$	$\nnwarrow$
$\ngeqdot$	$\nswarrow$
$\nleqslantdot, \nlesdot$	$\nsearrow$
$\ngeqslantdot, \ngesdot$	$\rightarrow$
$\nleqslantless$	$\Uparrow$
$\nleqslantgtr$	$\Leftarrow$
$\ncurlyeqprec$	$\Downarrow$
$\ncurlyeqsucc$	$\nearrow$
$\simneqq$	$\nrightarrow$
$\backsimneqq$	$\nswarrow$
$\lneq$	$\nsearrow$
$\gneq$	$\leftrightharpoonup$
$\lneqq, \lvertneqq$	$\nupdownarrow$
$\gneqq, \gvertneqq$	$\nneswarrow$
$\lnsim$	$\nnwsearrow$
$\gnsim$	$\nleftrightharpoonup$
$\lnapprox$	$\nupdownarrow$
$\gnapprox$	$\nneswarrow$
$\lessneqqgtr$	$\nnwsearrow$
$\gtrneqqless$	$\twoheadrightarrow$
$\sqsubsetneq$	$\twoheaduparrow$
$\sqsupsetneq$	$\twoheadleftarrow$
$\sqsubsetneqq$	$\twoheaddownarrow$
$\sqsupsetneqq$	$\twoheadnearrow$
$\subsetneq, \varsubsetneq$	$\twoheadnwarrow$
$\supsetneq, \varsupsetneq$	$\twoheadswarrow$
$\subsetneqq, \varsubsetneqq$	$\twoheadsearrow$
$\supsetneqq, \varsupsetneqq$	$\rightarrowtail$
$\precneq$	$\nuparrowtail$
$\succneq$	$\nleftarrowtail$
$\precneqq$	$\ndownarrowtail$
$\succneqq$	$\nrightarrowtail$
$\precnsim$	$\nnwarrowtail$
$\succnsim$	$\nswarrowtail$
$\precnapprox$	$\nsearrowtail$
$\succnapprox$	$\rightarrowmapsto, \nmapsto$
$\rightarrow, \nto$	$\nupmapsto, \nmapsup$

$\leftrightsquigarrow$	<code>\leftmapsto, \nmapsfrom</code>	$\leftrightsquigarrow$	<code>\leftrightharpoonupdown</code>
$\downdownarrows$	<code>\downmapsto, \nmapsdown</code>	$\nupdownharpoonleftright$	<code>\nupdownharpoonleftright</code>
$\nrightarrow$	<code>\nnemapsto</code>	$\nwarrow$	<code>\nneswharpoonnwse</code>
$\nwarrow$	<code>\nnwmapsto</code>	$\nwarrow$	<code>\nnwseharpoonnesw</code>
$\searrow$	<code>\nswmapsto</code>	$\leftrightsquigarrow$	<code>\leftrightharpoondownup</code>
$\searrow$	<code>\nsemapsto</code>	$\nupdownharpoonrightleft$	<code>\nupdownharpoonrightleft</code>
$\rightarrow$	<code>\nhookrightarrow,</code> <code>\hookrightarrow</code>	$\nwarrow$	<code>\nneswharpoonsenw</code>
$\uparrow$	<code>\nhookuparrow</code>	$\nwarrow$	<code>\nnwseharpoonswne</code>
$\leftarrow$	<code>\nhookleftarrow</code>	$\rightleftharpoons$	<code>\rightleftharpoons</code>
$\downarrow$	<code>\nhookdownarrow</code>	$\nupdownharpoons,$	<code>\nupdownharpoonsleftright</code>
$\nearrow$	<code>\nhooknearrow</code>	$\nwarrow$	<code>\nneswharpoons</code>
$\nwarrow$	<code>\nhooknwarrow, \nhknwarrow</code>	$\nwarrow$	<code>\nsenwharpoons</code>
$\searrow$	<code>\nhookswarrow</code>	$\leftrightsquigarrow$	<code>\leftrightharpoons</code>
$\searrow$	<code>\nhooksearrow, \nhksearrow</code>	$\nrightarrow$	<code>\downupharpoons,</code> <code>\downupharpoonsleftright</code>
$\rightarrow$	<code>\nrhookrightarrow</code>	$\nwarrow$	<code>\nswneharpoons</code>
$\uparrow$	<code>\nrhookuparrow</code>	$\nwarrow$	<code>\nnwseharpoons</code>
$\leftarrow$	<code>\nrhookleftarrow,</code> <code>\nhookleftarrow</code>	$\rightarrow$	<code>\rightbkarrow, \ndasharrow,</code> <code>\ndashrightarrow</code>
$\downarrow$	<code>\nrhookdownarrow</code>	$\rightarrow$	<code>\nupbkarrow</code>
$\nearrow$	<code>\nrhooknearrow, \nhknearrow</code>	$\leftarrow$	<code>\leftbkarrow, \ndashleftarrow</code>
$\nwarrow$	<code>\nrhooknwarrow</code>	$\downarrow$	<code>\ndownbkarrow</code>
$\searrow$	<code>\nrhookswarrow, \nhkswarrow</code>	$\nwarrow$	<code>\nnebkarrow</code>
$\nwarrow$	<code>\nrhooksearrow</code>	$\nwarrow$	<code>\nnwbkarrow</code>
$\rightarrow$	<code>\nrightharpoonup</code>	$\nwarrow$	<code>\nswbkarrow</code>
$\leftarrow$	<code>\nupharpoonleft</code>	$\nwarrow$	<code>\nsebkarrow</code>
$\leftarrow$	<code>\nleftharpoondown</code>	$\rightarrow$	<code>\rightspoon, \nmultimap</code>
$\rightarrow$	<code>\ndownharpoonright</code>	$\rightarrow$	<code>\nupspoon, \ncirmid</code>
$\nwarrow$	<code>\nneharpoonnw</code>	$\rightarrow$	<code>\leftspoon, \nmultimapinv</code>
$\nwarrow$	<code>\nnwharpoonsw</code>	$\rightarrow$	<code>\ndownspoon, \nmidcir</code>
$\nwarrow$	<code>\nswharpoonse</code>	$\rightarrow$	<code>\rightblackspoon</code>
$\nwarrow$	<code>\nseharpoonne</code>	$\rightarrow$	<code>\nupblackspoon</code>
$\rightarrow$	<code>\nrightharpoondown</code>	$\rightarrow$	<code>\leftblackspoon</code>
$\rightarrow$	<code>\nupharpoonright,</code> <code>\nrestriction</code>	$\rightarrow$	<code>\ndownblackspoon</code>
$\leftarrow$	<code>\nleftharpoonup</code>	$\rightarrow$	<code>\rightpitchfork</code>
$\rightarrow$	<code>\ndownharpoonleft</code>	$\rightarrow$	<code>\nuppitchfork, \npitchfork</code>
$\nwarrow$	<code>\nneharpoonse</code>	$\rightarrow$	<code>\leftpitchfork</code>
$\nwarrow$	<code>\nnwharpoonne</code>	$\rightarrow$	<code>\ndownpitchfork</code>
$\nwarrow$	<code>\nswharpoonnw</code>	$\rightarrow$	<code>\nrightrightarrows</code>
$\nwarrow$	<code>\nseharpoonsw</code>	$\rightarrow$	<code>\nupuparrows</code>

	<code>\leftleftarrows</code>		<code>\nuprcurvearrow</code>
	<code>\downdownarrows</code>		<code>\nleftrcurvearrow,</code>
	<code>\nnenearrows</code>		<code>\ncurvearrowleft,</code>
	<code>\nnwnwarrows</code>		<code>\nacwoverarcarrow</code>
	<code>\nswswarrows</code>		<code>\ndownrcurvearrow,</code>
	<code>\nsesearrows</code>		<code>\nacwleftarcarrow</code>
	<code>\rightleftarrows</code>		<code>\nnercurvearrow</code>
	<code>\updownarrows</code>		<code>\nnwrcurvearrow</code>
	<code>\nneswarrows</code>		<code>\nswrcurvearrow</code>
	<code>\nnwsearrows</code>		<code>\nsercurvearrow,</code>
	<code>\leftrigharrows</code>		<code>\nccwundercurvearrow</code>
	<code>\downuparrows</code>		<code>\nlefttrightcurvearrow</code>
	<code>\nswnearrows</code>		<code>\nupdowncurvearrow</code>
	<code>\nsenwarrows</code>		<code>\nrightrightcurvearrow</code>
	<code>\rightlsquigarrow,\nleadsto,</code>		<code>\ndownupcurvearrow</code>
	<code>\rightsquigarrow</code>		<code>\nneswcurvearrow</code>
	<code>\nuplsquigarrow</code>		<code>\nnwsecurvearrow</code>
	<code>\leftlsquigarrow</code>		<code>\nswnecurvearrow</code>
	<code>\downlsquigarrow</code>		<code>\nsenwcurvearrow</code>
	<code>\rightplsquigarrow</code>		<code>\nleftfootline,\nlongdash</code>
	<code>\nuprsquigarrow</code>		<code>\nrightrightfootline,\nlongdashv</code>
	<code>\leftplsquigarrow,</code>		<code>\nacwcirclearrowup</code>
	<code>\leftsquigarrow</code>		<code>\nacwcirclearrowleft,</code>
	<code>\downplsquigarrow</code>		<code>\ncirclearrowleft,</code>
	<code>\leftplsquigarrow</code>		<code>\nacwopencirclearrow</code>
	<code>\updownplsquigarrow</code>		<code>\nacwcirclearrowdown,</code>
	<code>\rightdownplsquigarrow</code>		<code>\nacwgapcirclearrow</code>
	<code>\downupdownplsquigarrow</code>		<code>\nacwcirclearrowright</code>
	<code>\rightupdownplsquigarrow,</code>		<code>\ncwcirclearrowdown,</code>
	<code>\ncurvearrowright</code>		<code>\ncwgapcirclearrow</code>
	<code>\nuplcurvearrow</code>		<code>\ncwcirclearrowright,</code>
	<code>\leftlcurvearrow</code>		<code>\ncirclearrowright,</code>
	<code>\downlcurvearrow,</code>		<code>\ncwopencirclearrow</code>
	<code>\ncwrightarcarrow</code>		<code>\ncwcirclearrowup</code>
	<code>\nnelcurvearrow</code>		<code>\ncwcirclearrowleft</code>
	<code>\nnwlccurvearrow</code>		<code>\nRrightarrow</code>
	<code>\nswlccurvearrow,</code>		<code>\nUuparrow</code>
	<code>\ncwundercurvearrow</code>		<code>\nLleftarrow</code>
	<code>\nselcurvearrow</code>		<code>\nDdownarrow</code>
	<code>\nrightrcurvearrow,</code>		<code>\nrightrightvdash,\nvdash,\nassert</code>
	<code>\nacwunderarcarrow</code>		<code>\nupvdash,\nperp</code>

$\dashv$	<code>\leftvdash, \ndashv</code>	$\Join$	<code>\rJoin</code>
$\dashv$	<code>\downvdash</code>	$\lJoin$	<code>\lJoin</code>
$\dashv$	<code>\rightvDash, \nvDash, \nmodels</code>	$\bowtie$	<code>\bowtie, \Join</code>
$\dashv$	<code>\nupvDash, \nVbar</code>	$\propto$	<code>\propto, \varpropto</code>
$\dashv$	<code>\leftvDash, \nDashv</code>	$\infty$	<code>\backpropto, \propfrom</code>
$\dashv$	<code>\downvDash, \nbarV</code>	$\times$	<code>\crossing</code>
$\dashv$	<code>\rightVdash, \nVdash</code>	$\emptyset$	<code>\between</code>
$\pm$	<code>\nupVdash</code>	$\)($	<code>\separated</code>
$\dashv$	<code>\leftVdash, \ndashV</code>	$ $	<code>\shortmid</code>
$\dashv$	<code>\downVdash</code>	$ $	<code>\mid, \divides</code>
$\dashv$	<code>\rightVDash, \nVDash</code>	$\dagger$	<code>\nshortmid</code>
$\pm$	<code>\nupVDash</code>	$\dagger$	<code>\nmid, \ndivides</code>
$\dashv$	<code>\leftVDash, \nDashV</code>	$\parallel$	<code>\shortparallel</code>
$\dashv$	<code>\downVDash</code>	$\parallel$	<code>\parallel</code>
$:$	<code>:\, \mathratio</code>	$\#$	<code>\nshortparallel</code>
$::$	<code>\Colon</code>	$\#$	<code>\nparallel</code>
$-$	<code>\relbar</code>		

## 4.4 Punctuation symbols

$\cdot$	<code>\cdotp</code>	$:$	<code>\colon, \mathcolon</code>
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## 4.5 Large operators

$+$	$\bigplus$	$\bigcup$	<code>\bigcup</code>
$\times$	<code>\bigtimes</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigwedge</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigvee</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigwedgedot</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigveedot</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigdoublewedge, \conjquant</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigdoublevee, \disjquant</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigcurlywedge</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigcurlyvee</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigcurlywedgedot</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigcurlyveedot</code>	$\bigcap$	<code>\bigcap</code>
$\wedge$	<code>\bigdoublecurlywedge</code>	$\bigcap$	<code>\bigcap</code>
$\vee$	<code>\bigdoublecurlyvee</code>	$\bigcap$	<code>\bigcap</code>
$\cap$	<code>\bigcap</code>	$\bigcap$	<code>\bigcap</code>

$\prod$	$\prod$	<code>\prod</code>	$\int$	$\int$	<code>\intint</code>
$\coprod$	$\coprod$	<code>\coprod</code>	$\oint$	$\oint$	<code>\ointint</code>
$\sum$	$\sum$	<code>\sum</code>	$\oint$	$\oint$	<code>\ointint</code>
$\sum$	$\sum$	<code>\osum</code>	$\oint$	$\oint$	<code>\oiint</code>
$\int$	$\int$	<code>\intint</code>	$\oint$	$\oint$	<code>\oiint</code>
$\iint$	$\iint$	<code>\iint</code>	$\oint$	$\oint$	<code>\rcirclearightint,</code> <code>\ointctrclockwise</code>
$\iiint$	$\iiint$	<code>\iiint</code>	$\oint$	$\oint$	<code>\lcirclearightint,</code> <code>\varointclockwise</code>
$\iiint$	$\iiint$	<code>\iiiint</code>	$\oint$	$\oint$	<code>\rcircleleftint,</code> <code>\varointctrclockwise</code>
$\int\cdots\int$	$\int\cdots\int$	<code>\idotsint,\dotsint</code>	$\oint$	$\oint$	<code>\lcircleleftint,</code> <code>\ointclockwise</code>
$\int$	$\int$	<code>\landupint,\intclockwise</code>	$\int$	$\int$	<code>\sumint</code>
$\int$	$\int$	<code>\landdownint,\awint,</code> <code>\intctrclockwise</code>	$\prod$	$\prod$	<code>\smallprod</code>
$\int$	$\int$	<code>\intbar</code>	$\coprod$	$\coprod$	<code>\smallcoprod</code>
$\int$	$\int$	<code>\intBar</code>	$\int$	$\int$	<code>\smallint</code>
			$\sqrt{\phantom{x}}$	$\sqrt{\phantom{x}}$	<code>\surd</code>

## 4.6 Delimiters and accents

$((((($	<code>(,\lparen</code>	$\ulcorner$	<code>\ulcorner</code>
$)))))$	<code>),\rparen</code>	$\urcorner$	<code>\urcorner</code>
$[[[[[$	<code>[,\lbrack</code>	$\llcorner$	<code>\llcorner</code>
$]]]]]$	<code>],\rbrack</code>	$\lrcorner$	<code>\lrcorner</code>
$\lfloor \lfloor \lfloor \lfloor$	<code>\lfloor</code>	$\ulcorner$	<code>\ulcorner</code>
$\rfloor \rfloor \rfloor \rfloor$	<code>\rfloor</code>	$\urcorner$	<code>\urcorner</code>
$\lceil \lceil \lceil \lceil$	<code>\lceil</code>	$\lceil \lceil \lceil \lceil$	<code>\lsem, \lBrack</code>
$\rceil \rceil \rceil \rceil$	<code>\rceil</code>	$\rceil \rceil \rceil \rceil$	<code>\rsem, \rBrack</code>



$\{\{\{\{\}$	<code>\lbrace, \{</code>
$\}\}\}\}$	<code>\rbrace, \}</code>
$\langle\langle\langle\langle$	<code>\langle</code>
$\rangle\rangle\rangle\rangle$	<code>\rangle</code>
$\langle\langle\langle\langle\langle$	<code>\lAngle</code>
$\rangle\rangle\rangle\rangle\rangle$	<code>\rAngle</code>
$\langle\langle\langle\langle\langle\cdot$	<code>\langedot</code>
$\rangle\rangle\rangle\rangle\rangle\cdot$	<code>\rangledot</code>
$//\//\$	<code>/, \mathslash</code>
$\backslash\backslash\backslash\backslash$	<code>\backslash</code>
$\uparrow\uparrow\uparrow\uparrow$	<code>\uparrow, \vert</code>
$\downarrow\downarrow\downarrow\downarrow$	<code>\downarrow</code>
$\updownarrow\updownarrow\updownarrow\updownarrow$	<code>\updownarrow</code>
$\Uparrow\Uparrow\Uparrow\Uparrow$	<code>\Uparrow, \Uparrow</code>
$\Downarrow\Downarrow\Downarrow\Downarrow$	<code>\Downarrow</code>
$\Updownarrow\Updownarrow\Updownarrow\Updownarrow$	<code>\Updownarrow</code>

$\overbrace{xxx}$	<code>\overbrace</code>
$\underbrace{xxx}$	<code>\underbrace</code>
$\overgroup{xxx}$	<code>\overgroup</code>
$\undergroup{xxx}$	<code>\undergroup</code>

$\Vdash\Vdash\Vdash\Vdash$	<code>\Vdash</code>
$\lVdash\lVdash\lVdash\lVdash$	<code>\lVdash</code>
$\rVdash\rVdash\rVdash\rVdash$	<code>\rVdash</code>
$\Uparrow\Uparrow\Uparrow\Uparrow$	<code>\Uparrow</code>
$\Downarrow\Downarrow\Downarrow\Downarrow$	<code>\Downarrow</code>
$\Updownarrow\Updownarrow\Updownarrow\Updownarrow$	<code>\Updownarrow</code>
$\{ \{ \{ \{$	<code>\lgroup</code>
$\} \} \} \}$	<code>\rgroup</code>
$\int \int \int \int$	<code>\lmoustache</code>
$\backslash \backslash \backslash \backslash$	<code>\rmoustache</code>
$\uparrow \uparrow \uparrow \uparrow$	<code>\uparrow</code>
$\downarrow \downarrow \downarrow \downarrow$	<code>\downarrow</code>
$\updownarrow \updownarrow \updownarrow \updownarrow$	<code>\updownarrow</code>
$\Uparrow \Uparrow \Uparrow \Uparrow$	<code>\Uparrow</code>
$\Downarrow \Downarrow \Downarrow \Downarrow$	<code>\Downarrow</code>
$\Updownarrow \Updownarrow \Updownarrow \Updownarrow$	<code>\Updownarrow</code>
$\overline{xxx}$	<code>\overline{xxx}</code>
$\overleftarrow{xxx}$	<code>\overleftarrow{xxx}</code>
$\overrightarrow{xxx}$	<code>\overrightarrow{xxx}</code>
$\underline{xxx}$	<code>\underline{xxx}</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>	$\backslash b$	<code>\middleslash</code>
$\wideparen{xxx}$	<code>\wideparen</code>	$\cancel{b}$	<code>\strokethrough</code>

## 4.7 Faked symbols

The following symbols are taken from the text font or another math font (in case of `\Re` and `\Im`).

$\dagger$	<code>\dagger</code>	$\Re$	<code>\Re</code>
$\ddagger$	<code>\ddagger</code>	$\Im$	<code>\Im</code>
$\P$	<code>\mathparagraph</code>	$\hbar$	<code>\hbar</code>
$\S$	<code>\mathsection</code>	$\hslash$	<code>\hslash</code>
$\$$	<code>\mathdollar</code>	$\textcircled{R}$	<code>\circledR</code>
$\pounds$	<code>\mathsterling</code>	$\textcircled{S}$	<code>\circledS</code>
$\yen$	<code>\yen</code>		

## 4.8 Missing symbols

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

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

## 5 Implementation

```
1 \langle *style\rangle
2 \RequirePackage{xkeyval}
```

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

```
3 \define@boolkey{fdsymbol.sty}[fdsy@]{largedelims}[true]{}%
```

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

```
4 \newcommand{\fdsy@scale}{1.0}
5 \define@key{fdsymbol.sty}{scale}{\renewcommand{\fdsy@scale}{#1}}
```

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

```
6 \newcommand{\fdsy@mweight}{Book}
```

```

7 \newcommand\fdsy@msweight{Book}
8 \newcommand\fdsy@bweight{Medium}
9 \newcommand\fdsy@bsweight{Medium}
10 \define@choicekey*{fdsymbol.sty}{normalweight}[\@tempa\@tempb]{book,regular,auto}{%
11   \ifcase\@tempb\relax
12     \renewcommand\fdsy@mweight{Book}
13     \renewcommand\fdsy@msweight{Book}
14   \or
15     \renewcommand\fdsy@mweight{Regular}
16     \renewcommand\fdsy@msweight{Regular}
17   \or
18     \renewcommand\fdsy@mweight{Book}
19     \renewcommand\fdsy@msweight{Regular}
20   \fi
21 }
22 \define@choicekey*{fdsymbol.sty}{boldweight}[\@tempa\@tempb]{medium,bold,auto}{%
23   \ifcase\@tempb\relax
24     \renewcommand\fdsy@bweight{Medium}
25     \renewcommand\fdsy@bsweight{Medium}
26   \or
27     \renewcommand\fdsy@bweight{Bold}
28     \renewcommand\fdsy@bsweight{Bold}
29   \or
30     \renewcommand\fdsy@bweight{Medium}
31     \renewcommand\fdsy@bsweight{Bold}
32   \fi
33 }
34
35 \ExecuteOptionsX{largedelims=false}
36 \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.

```

37 \ifpackageloaded{amsmath}{}{\RequirePackage{amsmath}}
38 \ifpackageloaded{textcomp}{}{\RequirePackage{textcomp}}
39 \ifundefined{mathfrak}{}{\RequirePackage{eufrak}}{}

```

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.

```

40 \iffdsy@largedelims
41   \renewcommand{\Big}{\bBigg@{1.25}}
42   \renewcommand{\bigg}{\bBigg@{1.66}}
43   \renewcommand{\Bigg}{\bBigg@{2.08}}
44 \fi

```

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

```

45 \DeclareRobustCommand{\dagger}{\fdsy@text{\textdagger}}
46 \DeclareRobustCommand{\ddagger}{\fdsy@text{\textdaggerdbl}}
47 \DeclareRobustCommand{\mathparagraph}{\fdsy@text{\textparagraph}}
48 \DeclareRobustCommand{\mathsection}{\fdsy@text{\textsection}}
49 \DeclareRobustCommand{\mathdollar}{\fdsy@text{\textdollar}}
50 \DeclareRobustCommand{\mathsterling}{\fdsy@text{\textsterling}}
51 \DeclareRobustCommand{\yen}{\fdsy@text{\textyen}}
52 \DeclareRobustCommand{\circledR}{\fdsy@text{\textcircled{%
53   \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont R}}}}
54 \DeclareRobustCommand{\circledS}{\fdsy@text{\textcircled{%
55   \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont S}}}}
56 \DeclareRobustCommand{\Re}{\mathfrak{R}}
57 \DeclareRobustCommand{\Im}{\mathfrak{I}}
58 \DeclareRobustCommand{\dotplus}{\mathbin{\dot{+}}}
59 \DeclareRobustCommand{\dotcong}{\mathrel{\dot{\cong}}}
60 \DeclareRobustCommand{\thicksim}{\mathrel{\text{\boldmath$\math@sim$}}}
61 \DeclareRobustCommand{\thickapprox}{\mathrel{\text{\boldmath$\math@approx$}}}
62 \let\hbar\undefined
63 \let\hslash\undefined
64 \DeclareRobustCommand{\hbar}{\middlebar h}
65 \DeclareRobustCommand{\hslash}{\middleslash h}
66 \DeclareRobustCommand{\veebar}{\mathbin{\underline{\vee}}}
67 \DeclareRobustCommand{\barwedge}{\mathbin{\overline{\wedge}}}
68 \DeclareRobustCommand{\veedoublebar}{\mathbin{\underline{\underline{\vee}}}}
69 \DeclareRobustCommand{\doublebarwedge}{\mathbin{\overline{\overline{\wedge}}}}
70 \DeclareRobustCommand{\centerdot}{\mathbin{\rule{0.15em}{0.15em}}}
71 \DeclareRobustCommand{\divideontimes}{\mathbin{\ooalign{$\div$\cr$\times$}}}

```

Unneeded partial symbols.

```

72 \let\mapstochar\undefined
73 \let\lhook\undefined
74 \let\rhook\undefined

```

Shorthands to simplify the definitions below.

```

75 \newcommand\fdsy@setslot[1]{\@tempcnta #1\relax}
76 \newcommand\fdsy@nextslot{\advance\@tempcnta 1\relax}
77 \newcommand\fdsy@prevslot{\advance\@tempcnta -1\relax}
78
79 \newcommand\fdsy@@DeclareSymbol[4]{\DeclareMathSymbol{#2}{#3}{#4}{#1}}
80 \newcommand\fdsy@DeclareSymbol[3]{%
81   \if\relax\noexpand#1\let#1\undefined\fi
82   \expandafter\fdsy@@DeclareSymbol\expandafter{\the\@tempcnta}{#1}{#3}{#2}%
83   \fdsy@nextslot
84 }
85 \newcommand\fdsy@DeclareAlias[3]{\fdsy@prevslot\fdsy@DeclareSymbol{#1}{#2}{#3}}
86 \newcommand\fdsy@DeclareOperator[3]{\def#1{\DOTSB#3\limits@}}
87 \newcommand\fdsy@DeclareIntegral[3]{\def#1{\DOTSI#3\limits@}}

```

```

88 \newcommand\fdsy@DeclareDelimiter[4]{%
89   \if\relax\noexpand#1\let#1\undefined\fi
90   \DeclareMathDelimiter{#1}{#2}{#3}{#4}{#3}{#4}%
91 }
92 \newcommand\fdsy@DeclareOpen[3]{\fdsy@DeclareDelimiter{#1}{\mathopen}{#2}{#3}}
93 \newcommand\fdsy@DeclareClose[3]{\fdsy@DeclareDelimiter{#1}{\mathclose}{#2}{#3}}

```

Font definitions.

```

94 \DeclareFontFamily{U}{FdSymbolA}{}
95 \DeclareFontFamily{U}{FdSymbolB}{}
96 \DeclareFontFamily{U}{FdSymbolC}{}
97 \DeclareFontFamily{U}{FdSymbolD}{}
98 \DeclareFontFamily{U}{FdSymbolE}{}
99 \DeclareFontFamily{U}{FdSymbolF}{}
100
101 \DeclareFontShape{U}{FdSymbolA}{m}{n}{
102   <-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@msweight
103   <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@mweight
104 }{}
105 \DeclareFontShape{U}{FdSymbolA}{b}{n}{
106   <-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@bsweight
107   <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@bweight
108 }{}
109 \DeclareFontShape{U}{FdSymbolB}{m}{n}{
110   <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@msweight
111   <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@mweight
112 }{}
113 \DeclareFontShape{U}{FdSymbolB}{b}{n}{
114   <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@bsweight
115   <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@bweight
116 }{}
117 \DeclareFontShape{U}{FdSymbolC}{m}{n}{
118   <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@msweight
119   <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@mweight
120 }{}
121 \DeclareFontShape{U}{FdSymbolC}{b}{n}{
122   <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@bsweight
123   <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@bweight
124 }{}
125 \DeclareFontShape{U}{FdSymbolD}{m}{n}{
126   <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@msweight
127   <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@mweight
128 }{}
129 \DeclareFontShape{U}{FdSymbolD}{b}{n}{
130   <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@bsweight
131   <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@bweight

```

```

132 }{}
133 \DeclareFontShape{U}{FdSymbolE}{m}{n}{
134     <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@msweight
135     <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@mweight
136 }{}
137 \DeclareFontShape{U}{FdSymbolE}{b}{n}{
138     <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@bsweight
139     <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@bweight
140 }{}
141 \DeclareFontShape{U}{FdSymbolF}{m}{n}{
142     <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@msweight
143     <7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@mweight
144 }{}
145 \DeclareFontShape{U}{FdSymbolF}{b}{n}{
146     <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@bsweight
147     <7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@bweight
148 }{}
149
150 \DeclareSymbolFont{symbols}{U}{FdSymbolA}{m}{n}
151 \DeclareSymbolFont{relations}{U}{FdSymbolB}{m}{n}
152 \DeclareSymbolFont{arrows}{U}{FdSymbolC}{m}{n}
153 \DeclareSymbolFont{narrows}{U}{FdSymbolD}{m}{n}
154 \DeclareSymbolFont{largesymbols}{U}{FdSymbolE}{m}{n}
155 \DeclareSymbolFont{delimiters}{U}{FdSymbolF}{m}{n}
156 \SetSymbolFont{symbols}{bold}{U}{FdSymbolA}{b}{n}
157 \SetSymbolFont{relations}{bold}{U}{FdSymbolB}{b}{n}
158 \SetSymbolFont{arrows}{bold}{U}{FdSymbolC}{b}{n}
159 \SetSymbolFont{narrows}{bold}{U}{FdSymbolD}{b}{n}
160 \SetSymbolFont{largesymbols}{bold}{U}{FdSymbolE}{b}{n}
161 \SetSymbolFont{delimiters}{bold}{U}{FdSymbolF}{b}{n}

At the moment, we still use cmsy for the calligraphic alphabet.
162 \DeclareMathAlphabet{\mathcal}{OMS}{cmsy}{m}{n}
163 \SetMathAlphabet{\mathcal}{bold}{OMS}{cmsy}{b}{n}

A command to take math symbols from text fonts.
164 \newcommand{\fdsy@bold}{bold}
165 \newcommand{\fdsy@text[1]}{%
166     \ifx\fdsy@bold\math@version
167         \text{\bfseries#1}%
168     \else
169         \text{\mdseries#1}%
170     \fi
171 }

FdSymbolA: binary operators and ordinary symbols
172 \fdsy@setslot{0}

```

```

173 \fdsy@DeclareSymbol{\cdot}{symbols}{\mathbin}
174 \fdsy@DeclareAlias{\cdotp}{symbols}{\mathpunct}
175 \fdsy@DeclareSymbol{\hdotdot}{symbols}{\mathbin}
176 \fdsy@DeclareSymbol{\vdotdot}{symbols}{\mathbin}
177 \fdsy@DeclareAlias{\colon}{symbols}{\mathpunct}
178 \fdsy@DeclareAlias{\mathcolon}{symbols}{\mathpunct}
179 \fdsy@DeclareAlias{\mathratio}{symbols}{\mathrel}
180 \fdsy@DeclareSymbol{\udotdot}{symbols}{\mathbin}
181 \fdsy@DeclareSymbol{\ddotdot}{symbols}{\mathbin}
182 \fdsy@DeclareSymbol{\hdots}{symbols}{\mathord}
183 \fdsy@DeclareAlias{\@cdots}{symbols}{\mathinner}
184 \let\cdots\@cdots
185 \fdsy@DeclareSymbol{\@evdots}{symbols}{\mathord}
186 \DeclareRobustCommand{\vdots}{\ifmmode\@evdots\else\hbox{$\@evdots$}\fi}
187 \fdsy@DeclareSymbol{\udots}{symbols}{\mathord}
188 \fdsy@DeclareAlias{\adots}{symbols}{\mathord}
189 \fdsy@DeclareSymbol{\ddots}{symbols}{\mathord}
190 \fdsy@DeclareSymbol{\righttherefore}{symbols}{\mathord}
191 \fdsy@DeclareSymbol{\uptherefore}{symbols}{\mathord}
192 \fdsy@DeclareAlias{\therefore}{symbols}{\mathord}
193 \fdsy@DeclareSymbol{\lefttherefore}{symbols}{\mathord}
194 \fdsy@DeclareSymbol{\downtherefore}{symbols}{\mathord}
195 \fdsy@DeclareAlias{\because}{symbols}{\mathord}
196 \fdsy@DeclareSymbol{\squaredots}{symbols}{\mathord}
197 \fdsy@DeclareAlias{\Colon}{symbols}{\mathrel}
198 \fdsy@DeclareSymbol{\minus}{symbols}{\mathbin}
199 \fdsy@DeclareSymbol{\medslash}{symbols}{\mathbin}
200 \fdsy@DeclareAlias{\smalldivslash}{symbols}{\mathbin}
201 \fdsy@DeclareSymbol{\medbackslash}{symbols}{\mathbin}
202 \fdsy@DeclareAlias{\smallsetminus}{symbols}{\mathbin}
203 \fdsy@DeclareSymbol{\plus}{symbols}{\mathbin}
204 \fdsy@DeclareSymbol{\times}{symbols}{\mathbin}
205 \fdsy@DeclareSymbol{\pm}{symbols}{\mathbin}
206 \fdsy@DeclareSymbol{\mp}{symbols}{\mathbin}
207 \fdsy@DeclareSymbol{\dotminus}{symbols}{\mathbin}
208 \fdsy@DeclareSymbol{\minusdot}{symbols}{\mathbin}
209 \fdsy@DeclareSymbol{\minusfdots}{symbols}{\mathbin}
210 \fdsy@DeclareSymbol{\minusrdots}{symbols}{\mathbin}
211 \fdsy@DeclareSymbol{\dotsminusdots}{symbols}{\mathbin}
212 \fdsy@DeclareSymbol{\div}{symbols}{\mathbin}
213 \fdsy@DeclareSymbol{\neg}{symbols}{\mathord}
214 \fdsy@DeclareAlias{\lnot}{symbols}{\mathord}
215 \fdsy@DeclareAlias{\minushookdown}{symbols}{\mathbin}
216 \fdsy@DeclareSymbol{\backneg}{symbols}{\mathord}
217 \fdsy@DeclareAlias{\hookdownminus}{symbols}{\mathbin}

```

```

218 \fdsy@DeclareAlias{\invneg}{symbols}{\mathord}
219 \fdsy@DeclareAlias{\invnot}{symbols}{\mathord}
220 \fdsy@DeclareSymbol{\intprod}{symbols}{\mathbin}
221 \fdsy@DeclareAlias{\minushookup}{symbols}{\mathbin}
222 \fdsy@DeclareAlias{\turnedneg}{symbols}{\mathord}
223 \fdsy@DeclareAlias{\turnednot}{symbols}{\mathord}
224 \fdsy@DeclareSymbol{\intprodr}{symbols}{\mathbin}
225 \fdsy@DeclareAlias{\hookupminus}{symbols}{\mathbin}
226 \fdsy@DeclareAlias{\turnedbackneg}{symbols}{\mathord}
227 \fdsy@DeclareSymbol{\leftthreetimes}{symbols}{\mathbin}
228 \fdsy@DeclareSymbol{\rightthreetimes}{symbols}{\mathbin}
229 \fdsy@DeclareSymbol{\dtimes}{symbols}{\mathbin}
230 \fdsy@DeclareAlias{\btimes}{symbols}{\mathbin}
231 \fdsy@DeclareSymbol{\rtimes}{symbols}{\mathbin}
232 \fdsy@DeclareAlias{\rJoin}{symbols}{\mathrel}
233 \fdsy@DeclareSymbol{\utimes}{symbols}{\mathbin}
234 \fdsy@DeclareAlias{\ttimes}{symbols}{\mathbin}
235 \fdsy@DeclareSymbol{\ltimes}{symbols}{\mathbin}
236 \fdsy@DeclareAlias{\lJoin}{symbols}{\mathrel}
237 \fdsy@DeclareSymbol{\bowtie}{symbols}{\mathrel}
238 \fdsy@DeclareAlias{\Join}{symbols}{\mathrel}
239 \fdsy@DeclareAlias{\lrtimes}{symbols}{\mathbin}
240 \fdsy@DeclareSymbol{\upbowtie}{symbols}{\mathbin}
241 \fdsy@DeclareAlias{\hourglass}{symbols}{\mathbin}
242 \fdsy@DeclareSymbol{\rightY}{symbols}{\mathbin}
243 \fdsy@DeclareSymbol{\upY}{symbols}{\mathbin}
244 \fdsy@DeclareSymbol{\leftY}{symbols}{\mathbin}
245 \fdsy@DeclareSymbol{\downY}{symbols}{\mathbin}
246 \fdsy@DeclareSymbol{\wedge}{symbols}{\mathbin}
247 \fdsy@DeclareAlias{\land}{symbols}{\mathbin}
248 \fdsy@DeclareSymbol{\vee}{symbols}{\mathbin}
249 \fdsy@DeclareAlias{\lor}{symbols}{\mathbin}
250 \fdsy@DeclareSymbol{\wedgedot}{symbols}{\mathbin}
251 \fdsy@DeclareSymbol{\veedot}{symbols}{\mathbin}
252 \fdsy@DeclareSymbol{\doublewedge}{symbols}{\mathbin}
253 \fdsy@DeclareAlias{\wedgeonwedge}{symbols}{\mathbin}
254 \fdsy@DeclareSymbol{\doublevee}{symbols}{\mathbin}
255 \fdsy@DeclareAlias{\veeonvee}{symbols}{\mathbin}
256 \fdsy@DeclareSymbol{\curlywedge}{symbols}{\mathbin}
257 \fdsy@DeclareSymbol{\curlyvee}{symbols}{\mathbin}
258 \fdsy@DeclareSymbol{\curlywedgedot}{symbols}{\mathbin}
259 \fdsy@DeclareSymbol{\curlyveedot}{symbols}{\mathbin}
260 \fdsy@DeclareSymbol{\doublecurlywedge}{symbols}{\mathbin}
261 \fdsy@DeclareSymbol{\doublecurlyvee}{symbols}{\mathbin}
262 \fdsy@DeclareSymbol{\cup}{symbols}{\mathbin}

```



```

263 \fdsy@DeclareSymbol{\cap}{symbols}{\mathbin}
264 \fdsy@DeclareSymbol{\doublecup}{symbols}{\mathbin}
265 \fdsy@DeclareAlias{\Cup}{symbols}{\mathbin}
266 \fdsy@DeclareSymbol{\doublecap}{symbols}{\mathbin}
267 \fdsy@DeclareAlias{\Cap}{symbols}{\mathbin}
268 \fdsy@DeclareSymbol{\cupdot}{symbols}{\mathbin}
269 \fdsy@DeclareSymbol{\capdot}{symbols}{\mathbin}
270 \fdsy@DeclareSymbol{\cupplus}{symbols}{\mathbin}
271 \fdsy@DeclareAlias{\uplus}{symbols}{\mathbin}
272 \fdsy@DeclareSymbol{\capplus}{symbols}{\mathbin}
273 \fdsy@DeclareSymbol{\sqcup}{symbols}{\mathbin}
274 \fdsy@DeclareSymbol{\sqcap}{symbols}{\mathbin}
275 \fdsy@DeclareSymbol{\doublesqcup}{symbols}{\mathbin}
276 \fdsy@DeclareAlias{\Sqcup}{symbols}{\mathbin}
277 \fdsy@DeclareSymbol{\doublesqcap}{symbols}{\mathbin}
278 \fdsy@DeclareAlias{\Sqcap}{symbols}{\mathbin}
279 \fdsy@DeclareSymbol{\sqcupdot}{symbols}{\mathbin}
280 \fdsy@DeclareSymbol{\sqcapdot}{symbols}{\mathbin}
281 \fdsy@DeclareSymbol{\sqcupplus}{symbols}{\mathbin}
282 \fdsy@DeclareSymbol{\sqcapplus}{symbols}{\mathbin}
283 \fdsy@DeclareSymbol{\pullback}{symbols}{\mathbin}
284 \fdsy@DeclareSymbol{\pushout}{symbols}{\mathbin}
285 \fdsy@DeclareSymbol{\smalltriangleright}{symbols}{\mathbin}
286 \fdsy@DeclareSymbol{\smalltriangleup}{symbols}{\mathbin}
287 \fdsy@DeclareSymbol{\smalltriangleleft}{symbols}{\mathbin}
288 \fdsy@DeclareSymbol{\smalltriangledown}{symbols}{\mathbin}
289 \fdsy@DeclareSymbol{\smallblacktriangleright}{symbols}{\mathbin}
290 \fdsy@DeclareSymbol{\smallblacktriangleup}{symbols}{\mathbin}
291 \fdsy@DeclareSymbol{\smallblacktriangleleft}{symbols}{\mathbin}
292 \fdsy@DeclareSymbol{\smallblacktriangledown}{symbols}{\mathbin}
293 \fdsy@DeclareSymbol{\medtriangleright}{symbols}{\mathbin}
294 \fdsy@DeclareAlias{\triangleright}{symbols}{\mathbin}
295 \fdsy@DeclareSymbol{\medtriangleup}{symbols}{\mathbin}
296 \fdsy@DeclareAlias{\triangle}{symbols}{\mathbin}
297 \fdsy@DeclareAlias{\vartriangle}{symbols}{\mathbin}
298 \fdsy@DeclareSymbol{\medtriangleleft}{symbols}{\mathbin}
299 \fdsy@DeclareAlias{\triangleleft}{symbols}{\mathbin}
300 \fdsy@DeclareSymbol{\medtriangledown}{symbols}{\mathbin}
301 \fdsy@DeclareAlias{\triangledown}{symbols}{\mathbin}
302 \fdsy@DeclareSymbol{\medblacktriangleright}{symbols}{\mathbin}
303 \fdsy@DeclareAlias{\blacktriangleright}{symbols}{\mathbin}
304 \fdsy@DeclareSymbol{\medblacktriangleup}{symbols}{\mathbin}
305 \fdsy@DeclareAlias{\blacktriangle}{symbols}{\mathbin}
306 \fdsy@DeclareSymbol{\medblacktriangleleft}{symbols}{\mathbin}
307 \fdsy@DeclareAlias{\blacktriangleleft}{symbols}{\mathbin}

```

```

308 \fdsy@DeclareSymbol{\medblacktriangledown}{symbols}{\mathbin}
309 \fdsy@DeclareAlias{\blacktriangledown}{symbols}{\mathbin}
310 \fdsy@DeclareSymbol{\largetriangleup}{symbols}{\mathord}
311 \fdsy@DeclareAlias{\bigtriangleup}{symbols}{\mathbin}
312 \fdsy@DeclareSymbol{\largetriangledown}{symbols}{\mathord}
313 \fdsy@DeclareAlias{\bigtriangledown}{symbols}{\mathbin}
314 \fdsy@DeclareSymbol{\smallcircle}{symbols}{\mathbin}
315 \fdsy@DeclareAlias{\circ}{symbols}{\mathbin}
316 \fdsy@DeclareAlias{\smwhtcircle}{symbols}{\mathbin}
317 \fdsy@DeclareSymbol{\smallblackcircle}{symbols}{\mathbin}
318 \fdsy@DeclareAlias{\bullet}{symbols}{\mathbin}
319 \fdsy@DeclareAlias{\smbkcircle}{symbols}{\mathbin}
320 \fdsy@DeclareSymbol{\medcircle}{symbols}{\mathbin}
321 \fdsy@DeclareAlias{\mdlgwhtcircle}{symbols}{\mathbin}
322 \fdsy@DeclareSymbol{\medblackcircle}{symbols}{\mathbin}
323 \fdsy@DeclareAlias{\mdlgblkcircle}{symbols}{\mathbin}
324 \fdsy@DeclareSymbol{\ominus}{symbols}{\mathbin}
325 \fdsy@DeclareSymbol{\overt}{symbols}{\mathbin}
326 \fdsy@DeclareAlias{\circledvert}{symbols}{\mathbin}
327 \fdsy@DeclareSymbol{\oslash}{symbols}{\mathbin}
328 \fdsy@DeclareSymbol{\obackslash}{symbols}{\mathbin}
329 \fdsy@DeclareAlias{\obslash}{symbols}{\mathbin}
330 \fdsy@DeclareSymbol{\oplus}{symbols}{\mathbin}
331 \fdsy@DeclareSymbol{\otimes}{symbols}{\mathbin}
332 \fdsy@DeclareSymbol{\odot}{symbols}{\mathbin}
333 \fdsy@DeclareSymbol{\ocirc}{symbols}{\mathbin}
334 \fdsy@DeclareAlias{\circledcirc}{symbols}{\mathbin}
335 \fdsy@DeclareSymbol{\oast}{symbols}{\mathbin}
336 \fdsy@DeclareAlias{\circledast}{symbols}{\mathbin}
337 \fdsy@DeclareSymbol{\odash}{symbols}{\mathbin}
338 \fdsy@DeclareAlias{\circleddash}{symbols}{\mathbin}
339 \fdsy@DeclareSymbol{\oequal}{symbols}{\mathbin}
340 \fdsy@DeclareAlias{\circledequal}{symbols}{\mathbin}
341 \fdsy@DeclareSymbol{\emptyset}{symbols}{\mathord}
342 \fdsy@DeclareAlias{\diameter}{symbols}{\mathord}
343 \fdsy@DeclareAlias{\varnothing}{symbols}{\mathord}
344 \fdsy@DeclareSymbol{\revemptyset}{symbols}{\mathord}
345 \fdsy@DeclareSymbol{\largecircle}{symbols}{\mathord}
346 \fdsy@DeclareAlias{\bigcirc}{symbols}{\mathord}
347 \fdsy@DeclareAlias{\lgwhtcircle}{symbols}{\mathord}
348 \fdsy@DeclareSymbol{\largeblackcircle}{symbols}{\mathord}
349 \fdsy@DeclareAlias{\lgblkcircle}{symbols}{\mathord}
350 \fdsy@DeclareSymbol{\smallsquare}{symbols}{\mathbin}
351 \fdsy@DeclareAlias{\smwhtsquare}{symbols}{\mathbin}
352 \fdsy@DeclareSymbol{\smallblacksquare}{symbols}{\mathbin}

```

```

353 \fdsy@DeclareAlias{\smbllksquare}{symbols}{\mathbin}
354 \fdsy@DeclareSymbol{\medsquare}{symbols}{\mathbin}
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356 \fdsy@DeclareAlias{\Box}{symbols}{\mathbin}
357 \fdsy@DeclareAlias{\mdlgwhtsquare}{symbols}{\mathbin}
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359 \fdsy@DeclareSymbol{\medblacksquare}{symbols}{\mathbin}
360 \fdsy@DeclareAlias{\mdlgblksquare}{symbols}{\mathbin}
361 \fdsy@DeclareAlias{\mdblksquare}{symbols}{\mathbin}
362 \fdsy@DeclareSymbol{\boxminus}{symbols}{\mathbin}
363 \fdsy@DeclareSymbol{\boxvert}{symbols}{\mathbin}
364 \fdsy@DeclareAlias{\boxbar}{symbols}{\mathbin}
365 \fdsy@DeclareSymbol{\boxslash}{symbols}{\mathbin}
366 \fdsy@DeclareAlias{\boxdiag}{symbols}{\mathbin}
367 \fdsy@DeclareSymbol{\boxbackslash}{symbols}{\mathbin}
368 \fdsy@DeclareAlias{\boxbslash}{symbols}{\mathbin}
369 \fdsy@DeclareSymbol{\boxplus}{symbols}{\mathbin}
370 \fdsy@DeclareSymbol{\boxtimes}{symbols}{\mathbin}
371 \fdsy@DeclareSymbol{\boxdot}{symbols}{\mathbin}
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374 \fdsy@DeclareAlias{\lgwhtsquare}{symbols}{\mathord}
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385 \fdsy@DeclareAlias{\mdlgwhtdiamond}{symbols}{\mathbin}
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393 \fdsy@DeclareSymbol{\diamondbackslash}{symbols}{\mathbin}
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396 \fdsy@DeclareSymbol{\diamondtimes}{symbols}{\mathbin}
397 \fdsy@DeclareSymbol{\diamonddot}{symbols}{\mathbin}

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398 \fdsy@DeclareAlias{\diamondcdot}{symbols}{\mathbin}
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400 \fdsy@DeclareSymbol{\smalllozenge}{symbols}{\mathord}
401 \fdsy@DeclareAlias{\smwhtlozenge}{symbols}{\mathord}
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415 \fdsy@DeclareSymbol{\smallblackstar}{symbols}{\mathbin}
416 \fdsy@DeclareAlias{\star}{symbols}{\mathbin}
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427 \fdsy@DeclareSymbol{\backpropto}{symbols}{\mathrel}
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429 \fdsy@DeclareSymbol{\crossing}{symbols}{\mathrel}
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440 \fdsy@DeclareSymbol{\revmeasuredangle}{symbols}{\mathord}
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455 \fdsy@DeclareSymbol{\backprime}{symbols}{\mathord}
456 \fdsy@DeclareSymbol{\smallprod}{symbols}{\mathop}
457 \fdsy@DeclareSymbol{\smallcoprod}{symbols}{\mathop}
458 \fdsy@DeclareAlias{\amalg}{symbols}{\mathbin}
459 \fdsy@DeclareSymbol{\smallint}{symbols}{\mathop}
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463 \fdsy@DeclareSymbol{\diamondsuit}{symbols}{\mathord}
464 \fdsy@DeclareSymbol{\vardiamondsuit}{symbols}{\mathord}
465 \fdsy@DeclareSymbol{\heartsuit}{symbols}{\mathord}
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484 \fdsy@DeclareSymbol{\daleth}{symbols}{\mathord}
485 \fdsy@DeclareSymbol{\wp}{symbols}{\mathord}

FdSymbolB: relations
486 \fdsy@setslot{0}

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488 \fdsy@DeclareSymbol{\equiv}{relations}{\mathrel}
489 \fdsy@DeclareSymbol{\sim}{relations}{\mathrel}
490 \fdsy@DeclareSymbol{\backsim}{relations}{\mathrel}
491 \fdsy@DeclareSymbol{\approx}{relations}{\mathrel}
492 \fdsy@DeclareSymbol{\triplesim}{relations}{\mathrel}
493 \fdsy@DeclareAlias{\approxident}{relations}{\mathrel}
494 \fdsy@DeclareSymbol{\simeq}{relations}{\mathrel}
495 \fdsy@DeclareSymbol{\backsim}{relations}{\mathrel}
496 \fdsy@DeclareSymbol{\eqsim}{relations}{\mathrel}
497 \fdsy@DeclareSymbol{\cong}{relations}{\mathrel}
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504 \fdsy@DeclareSymbol{\eqdot}{relations}{\mathrel}
505 \fdsy@DeclareSymbol{\Doteq}{relations}{\mathrel}
506 \fdsy@DeclareAlias{\doteqdot}{relations}{\mathrel}
507 \fdsy@DeclareSymbol{\fallingdotseq}{relations}{\mathrel}
508 \fdsy@DeclareSymbol{\risingdotseq}{relations}{\mathrel}
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531 \fdsy@DeclareSymbol{\less}{relations}{\mathrel}

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566 \fdsy@DeclareAlias{\unlhd}{relations}{\mathbin}
567 \fdsy@DeclareAlias{\trianglelefteq}{relations}{\mathrel}
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711 \fdsy@DeclareSymbol{\nsubset}{relations}{\mathrel}

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735 \fdsy@DeclareSymbol{\nleqslantdot}{relations}{\mathrel}
736 \fdsy@DeclareAlias{\nlesdot}{relations}{\mathrel}
737 \fdsy@DeclareSymbol{\ngeqslantdot}{relations}{\mathrel}
738 \fdsy@DeclareAlias{\ngesdot}{relations}{\mathrel}
739 \fdsy@DeclareSymbol{\neqslantless}{relations}{\mathrel}
740 \fdsy@DeclareSymbol{\neqslantgtr}{relations}{\mathrel}
741 \fdsy@DeclareSymbol{\ncurlyeqprec}{relations}{\mathrel}
742 \fdsy@DeclareSymbol{\ncurlyeqsucc}{relations}{\mathrel}
743 \fdsy@DeclareSymbol{\simneqq}{relations}{\mathrel}
744 \fdsy@DeclareSymbol{\backsimneqq}{relations}{\mathrel}
745 \fdsy@DeclareSymbol{\lneq}{relations}{\mathrel}
746 \fdsy@DeclareSymbol{\gneq}{relations}{\mathrel}
747 \fdsy@DeclareSymbol{\lneqq}{relations}{\mathrel}
748 \fdsy@DeclareAlias{\lvertneqq}{relations}{\mathrel}
749 \fdsy@DeclareSymbol{\gneqq}{relations}{\mathrel}
750 \fdsy@DeclareAlias{\gvertneqq}{relations}{\mathrel}
751 \fdsy@DeclareSymbol{\lnsim}{relations}{\mathrel}
752 \fdsy@DeclareSymbol{\gnsim}{relations}{\mathrel}
753 \fdsy@DeclareSymbol{\lnapprox}{relations}{\mathrel}
754 \fdsy@DeclareSymbol{\gnapprox}{relations}{\mathrel}
755 \fdsy@DeclareSymbol{\lessneqqgtr}{relations}{\mathrel}
756 \fdsy@DeclareSymbol{\gtrneqqless}{relations}{\mathrel}

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```

757 \fdsy@DeclareSymbol{\sqsubsetneq}{relations}{\mathrel}
758 \fdsy@DeclareSymbol{\sqsupsetneq}{relations}{\mathrel}
759 \fdsy@DeclareSymbol{\sqsubsetneqq}{relations}{\mathrel}
760 \fdsy@DeclareSymbol{\sqsupsetneqq}{relations}{\mathrel}
761 \fdsy@DeclareSymbol{\subsetneq}{relations}{\mathrel}
762 \fdsy@DeclareAlias{\varsubsetneq}{relations}{\mathrel}
763 \fdsy@DeclareSymbol{\supsetneq}{relations}{\mathrel}
764 \fdsy@DeclareAlias{\varsupsetneq}{relations}{\mathrel}
765 \fdsy@DeclareSymbol{\subsetneqq}{relations}{\mathrel}
766 \fdsy@DeclareAlias{\varsubsetneqq}{relations}{\mathrel}
767 \fdsy@DeclareSymbol{\supsetneqq}{relations}{\mathrel}
768 \fdsy@DeclareAlias{\varsupsetneqq}{relations}{\mathrel}
769 \fdsy@DeclareSymbol{\precneq}{relations}{\mathrel}
770 \fdsy@DeclareSymbol{\succneq}{relations}{\mathrel}
771 \fdsy@DeclareSymbol{\precneqq}{relations}{\mathrel}
772 \fdsy@DeclareSymbol{\succneqq}{relations}{\mathrel}
773 \fdsy@DeclareSymbol{\precnsim}{relations}{\mathrel}
774 \fdsy@DeclareSymbol{\succnsim}{relations}{\mathrel}
775 \fdsy@DeclareSymbol{\precnapprox}{relations}{\mathrel}
776 \fdsy@DeclareSymbol{\succnapprox}{relations}{\mathrel}
777
778 \DeclareRobustCommand{\coloneq}{\mathrel{\{\vdotdot\}\equal{}}}
779 \let\coloneqq\coloneq

FdSymbolC: arrows
780 \fdsy@setslot{0}
781 \fdsy@DeclareSymbol{\rightarrow}{arrows}{\mathrel}
782 \fdsy@DeclareAlias{\to}{arrows}{\mathrel}
783 \fdsy@DeclareSymbol{\uparrow}{arrows}{\mathrel}
784 \fdsy@DeclareSymbol{\leftarrow}{arrows}{\mathrel}
785 \fdsy@DeclareAlias{\gets}{arrows}{\mathrel}
786 \fdsy@DeclareSymbol{\downarrow}{arrows}{\mathrel}
787 \fdsy@DeclareSymbol{\nearrow}{arrows}{\mathrel}
788 \fdsy@DeclareSymbol{\nwarrow}{arrows}{\mathrel}
789 \fdsy@DeclareSymbol{\swarrow}{arrows}{\mathrel}
790 \fdsy@DeclareSymbol{\searrow}{arrows}{\mathrel}
791 \fdsy@DeclareSymbol{\Rightarrow}{arrows}{\mathrel}
792 \fdsy@DeclareSymbol{\Uparrow}{arrows}{\mathrel}
793 \fdsy@DeclareSymbol{\Leftarrow}{arrows}{\mathrel}
794 \fdsy@DeclareSymbol{\Downarrow}{arrows}{\mathrel}
795 \fdsy@DeclareSymbol{\Nearrow}{arrows}{\mathrel}
796 \fdsy@DeclareSymbol{\Nwarrow}{arrows}{\mathrel}
797 \fdsy@DeclareSymbol{\Swarrow}{arrows}{\mathrel}
798 \fdsy@DeclareSymbol{\Searrow}{arrows}{\mathrel}
799 \fdsy@DeclareSymbol{\leftrightharpoonup}{arrows}{\mathrel}
800 \fdsy@DeclareSymbol{\updownarrow}{arrows}{\mathrel}

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801 \fdsy@DeclareSymbol{\neswarrow}{arrows}{\mathrel}
802 \fdsy@DeclareSymbol{\nwsearrow}{arrows}{\mathrel}
803 \fdsy@DeclareSymbol{\Leftrightarrow}{arrows}{\mathrel}
804 \fdsy@DeclareSymbol{\Updownarrow}{arrows}{\mathrel}
805 \fdsy@DeclareSymbol{\Neswarrow}{arrows}{\mathrel}
806 \fdsy@DeclareSymbol{\Nwsearrow}{arrows}{\mathrel}
807 \fdsy@DeclareSymbol{\twoheadrightarrow}{arrows}{\mathrel}
808 \fdsy@DeclareSymbol{\twoheaduparrow}{arrows}{\mathrel}
809 \fdsy@DeclareSymbol{\twoheadleftarrow}{arrows}{\mathrel}
810 \fdsy@DeclareSymbol{\twoheaddownarrow}{arrows}{\mathrel}
811 \fdsy@DeclareSymbol{\twoheadnearrow}{arrows}{\mathrel}
812 \fdsy@DeclareSymbol{\twoheadnwarrow}{arrows}{\mathrel}
813 \fdsy@DeclareSymbol{\twoheadswarrow}{arrows}{\mathrel}
814 \fdsy@DeclareSymbol{\twoheadsearrow}{arrows}{\mathrel}
815 \fdsy@DeclareSymbol{\rightarrowtail}{arrows}{\mathrel}
816 \fdsy@DeclareSymbol{\uparrowtail}{arrows}{\mathrel}
817 \fdsy@DeclareSymbol{\leftarrowtail}{arrows}{\mathrel}
818 \fdsy@DeclareSymbol{\downarrowtail}{arrows}{\mathrel}
819 \fdsy@DeclareSymbol{\nearrowtail}{arrows}{\mathrel}
820 \fdsy@DeclareSymbol{\nwarrowtail}{arrows}{\mathrel}
821 \fdsy@DeclareSymbol{\swarrowtail}{arrows}{\mathrel}
822 \fdsy@DeclareSymbol{\searrowtail}{arrows}{\mathrel}
823 \fdsy@DeclareSymbol{\rightrightarrows}{arrows}{\mathrel}
824 \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
825 \fdsy@DeclareSymbol{\upmapsto}{arrows}{\mathrel}
826 \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
827 \fdsy@DeclareSymbol{\leftmapsto}{arrows}{\mathrel}
828 \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
829 \fdsy@DeclareSymbol{\downmapsto}{arrows}{\mathrel}
830 \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
831 \fdsy@DeclareSymbol{\nemapsto}{arrows}{\mathrel}
832 \fdsy@DeclareSymbol{\nwmapsto}{arrows}{\mathrel}
833 \fdsy@DeclareSymbol{\swmapsto}{arrows}{\mathrel}
834 \fdsy@DeclareSymbol{\semapsto}{arrows}{\mathrel}
835 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
836 \fdsy@DeclareAlias{\hookrightarrow}{arrows}{\mathrel}
837 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
838 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
839 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
840 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
841 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
842 \fdsy@DeclareAlias{\hookrightarrow}{arrows}{\mathrel}
843 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
844 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
845 \fdsy@DeclareAlias{\hookrightarrow}{arrows}{\mathrel}

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846 \fdsy@DeclareSymbol{\rhookrightarrow}{arrows}{\mathrel}
847 \fdsy@DeclareSymbol{\rhookuparrow}{arrows}{\mathrel}
848 \fdsy@DeclareSymbol{\rhookleftarrow}{arrows}{\mathrel}
849 \fdsy@DeclareAlias{\hookleftarrow}{arrows}{\mathrel}
850 \fdsy@DeclareSymbol{\rhookdownarrow}{arrows}{\mathrel}
851 \fdsy@DeclareSymbol{\rhooknearrow}{arrows}{\mathrel}
852 \fdsy@DeclareAlias{\hknearrow}{arrows}{\mathrel}
853 \fdsy@DeclareSymbol{\rhooknwarrow}{arrows}{\mathrel}
854 \fdsy@DeclareSymbol{\rhookswarrow}{arrows}{\mathrel}
855 \fdsy@DeclareAlias{\hkswarrow}{arrows}{\mathrel}
856 \fdsy@DeclareSymbol{\rhooksearrow}{arrows}{\mathrel}
857 \fdsy@DeclareSymbol{\rightharpoonup}{arrows}{\mathrel}
858 \fdsy@DeclareSymbol{\upharpoonleft}{arrows}{\mathrel}
859 \fdsy@DeclareSymbol{\leftharpoondown}{arrows}{\mathrel}
860 \fdsy@DeclareSymbol{\downharpoonright}{arrows}{\mathrel}
861 \fdsy@DeclareSymbol{\neharpoonnw}{arrows}{\mathrel}
862 \fdsy@DeclareSymbol{\nwharpoonsw}{arrows}{\mathrel}
863 \fdsy@DeclareSymbol{\swharpoonse}{arrows}{\mathrel}
864 \fdsy@DeclareSymbol{\seharpoonne}{arrows}{\mathrel}
865 \fdsy@DeclareSymbol{\rightharpoondown}{arrows}{\mathrel}
866 \fdsy@DeclareSymbol{\upharpoonright}{arrows}{\mathrel}
867 \fdsy@DeclareAlias{\restriction}{arrows}{\mathrel}
868 \fdsy@DeclareSymbol{\leftharpoonup}{arrows}{\mathrel}
869 \fdsy@DeclareSymbol{\downharpoonleft}{arrows}{\mathrel}
870 \fdsy@DeclareSymbol{\neharpoonse}{arrows}{\mathrel}
871 \fdsy@DeclareSymbol{\nwharpoonne}{arrows}{\mathrel}
872 \fdsy@DeclareSymbol{\swharpoonnw}{arrows}{\mathrel}
873 \fdsy@DeclareSymbol{\seharpoonsw}{arrows}{\mathrel}
874 \fdsy@DeclareSymbol{\leftrightharpoonupdown}{arrows}{\mathrel}
875 \fdsy@DeclareSymbol{\updownharpoonleftright}{arrows}{\mathrel}
876 \fdsy@DeclareSymbol{\neswharpoonnwse}{arrows}{\mathrel}
877 \fdsy@DeclareSymbol{\nwseharpoonnesw}{arrows}{\mathrel}
878 \fdsy@DeclareSymbol{\leftrightharpoondownup}{arrows}{\mathrel}
879 \fdsy@DeclareSymbol{\updownharpoonrightleft}{arrows}{\mathrel}
880 \fdsy@DeclareSymbol{\neswharpoonsenw}{arrows}{\mathrel}
881 \fdsy@DeclareSymbol{\nwseharpoonswne}{arrows}{\mathrel}
882 \fdsy@DeclareSymbol{\rightleftharpoons}{arrows}{\mathrel}
883 \fdsy@DeclareSymbol{\updownharpoons}{arrows}{\mathrel}
884 \fdsy@DeclareAlias{\updownharpoonsleftright}{arrows}{\mathrel}
885 \fdsy@DeclareSymbol{\neswharpoons}{arrows}{\mathrel}
886 \fdsy@DeclareSymbol{\senwharpoons}{arrows}{\mathrel}
887 \fdsy@DeclareSymbol{\leftrightharpoons}{arrows}{\mathrel}
888 \fdsy@DeclareSymbol{\downupharpoons}{arrows}{\mathrel}
889 \fdsy@DeclareAlias{\downupharpoonsleftright}{arrows}{\mathrel}
890 \fdsy@DeclareSymbol{\swneharpoons}{arrows}{\mathrel}

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891 \fdsy@DeclareSymbol{\nwseharpoons}{arrows}{\mathrel}
892 \fdsy@DeclareSymbol{\rightbkarrow}{arrows}{\mathrel}
893 \fdsy@DeclareAlias{\dasharrow}{arrows}{\mathrel}
894 \fdsy@DeclareAlias{\dashrightarrow}{arrows}{\mathrel}
895 \fdsy@DeclareSymbol{\upbkarrow}{arrows}{\mathrel}
896 \fdsy@DeclareSymbol{\leftbkarrow}{arrows}{\mathrel}
897 \fdsy@DeclareAlias{\dashleftarrow}{arrows}{\mathrel}
898 \fdsy@DeclareSymbol{\downbkarrow}{arrows}{\mathrel}
899 \fdsy@DeclareSymbol{\nebkarrow}{arrows}{\mathrel}
900 \fdsy@DeclareSymbol{\nwbkarrow}{arrows}{\mathrel}
901 \fdsy@DeclareSymbol{\swbkarrow}{arrows}{\mathrel}
902 \fdsy@DeclareSymbol{\sebkarrow}{arrows}{\mathrel}
903 \fdsy@DeclareSymbol{\rightspoon}{arrows}{\mathrel}
904 \fdsy@DeclareAlias{\multimap}{arrows}{\mathrel}
905 \fdsy@DeclareSymbol{\upspoon}{arrows}{\mathrel}
906 \fdsy@DeclareAlias{\circmid}{arrows}{\mathrel}
907 \fdsy@DeclareSymbol{\leftspoon}{arrows}{\mathrel}
908 \fdsy@DeclareAlias{\multimapinv}{arrows}{\mathrel}
909 \fdsy@DeclareSymbol{\downspoon}{arrows}{\mathrel}
910 \fdsy@DeclareAlias{\midcir}{arrows}{\mathrel}
911 \fdsy@DeclareSymbol{\rightblackspoon}{arrows}{\mathrel}
912 \fdsy@DeclareSymbol{\upblackspoon}{arrows}{\mathrel}
913 \fdsy@DeclareSymbol{\leftblackspoon}{arrows}{\mathrel}
914 \fdsy@DeclareSymbol{\downblackspoon}{arrows}{\mathrel}
915 \fdsy@DeclareSymbol{\rightpitchfork}{arrows}{\mathrel}
916 \fdsy@DeclareSymbol{\uppitchfork}{arrows}{\mathrel}
917 \fdsy@DeclareAlias{\pitchfork}{arrows}{\mathrel}
918 \fdsy@DeclareSymbol{\leftpitchfork}{arrows}{\mathrel}
919 \fdsy@DeclareSymbol{\downpitchfork}{arrows}{\mathrel}
920 \fdsy@DeclareSymbol{\rightrightarrows}{arrows}{\mathrel}
921 \fdsy@DeclareSymbol{\upuparrows}{arrows}{\mathrel}
922 \fdsy@DeclareSymbol{\leftleftarrows}{arrows}{\mathrel}
923 \fdsy@DeclareSymbol{\downdownarrows}{arrows}{\mathrel}
924 \fdsy@DeclareSymbol{\nenearrows}{arrows}{\mathrel}
925 \fdsy@DeclareSymbol{\nwnwarrows}{arrows}{\mathrel}
926 \fdsy@DeclareSymbol{\swswarrows}{arrows}{\mathrel}
927 \fdsy@DeclareSymbol{\sesearrows}{arrows}{\mathrel}
928 \fdsy@DeclareSymbol{\rightleftarrows}{arrows}{\mathrel}
929 \fdsy@DeclareSymbol{\updownarrows}{arrows}{\mathrel}
930 \fdsy@DeclareSymbol{\neswarrows}{arrows}{\mathrel}
931 \fdsy@DeclareSymbol{\nwsearrows}{arrows}{\mathrel}
932 \fdsy@DeclareSymbol{\leftrightharrows}{arrows}{\mathrel}
933 \fdsy@DeclareSymbol{\downuparrows}{arrows}{\mathrel}
934 \fdsy@DeclareSymbol{\swnearrows}{arrows}{\mathrel}
935 \fdsy@DeclareSymbol{\senwarrows}{arrows}{\mathrel}

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936 \fdsy@DeclareSymbol{\rightlsquigarrow}{arrows}{\mathrel}
937 \fdsy@DeclareAlias{\leadsto}{arrows}{\mathrel}
938 \fdsy@DeclareAlias{\rightsquigarrow}{arrows}{\mathrel}
939 \fdsy@DeclareSymbol{\uplsquigarrow}{arrows}{\mathrel}
940 \fdsy@DeclareSymbol{\leftlsquigarrow}{arrows}{\mathrel}
941 \fdsy@DeclareSymbol{\downlsquigarrow}{arrows}{\mathrel}
942 \fdsy@DeclareSymbol{\rightsquigarrow}{arrows}{\mathrel}
943 \fdsy@DeclareSymbol{\uprsquigarrow}{arrows}{\mathrel}
944 \fdsy@DeclareSymbol{\leftsquigarrow}{arrows}{\mathrel}
945 \fdsy@DeclareAlias{\leftsquigarrow}{arrows}{\mathrel}
946 \fdsy@DeclareSymbol{\downrsquigarrow}{arrows}{\mathrel}
947 \fdsy@DeclareSymbol{\leftrightsquigarrow}{arrows}{\mathrel}
948 \fdsy@DeclareSymbol{\updownsquigarrow}{arrows}{\mathrel}
949 \fdsy@DeclareSymbol{\rightleftsquigarrow}{arrows}{\mathrel}
950 \fdsy@DeclareSymbol{\downupsquigarrow}{arrows}{\mathrel}
951 \fdsy@DeclareSymbol{\rightlcurvearrow}{arrows}{\mathrel}
952 \fdsy@DeclareAlias{\curvearrowright}{arrows}{\mathrel}
953 \fdsy@DeclareSymbol{\uplcurvearrow}{arrows}{\mathrel}
954 \fdsy@DeclareSymbol{\leftlcurvearrow}{arrows}{\mathrel}
955 \fdsy@DeclareSymbol{\downlcurvearrow}{arrows}{\mathrel}
956 \fdsy@DeclareAlias{\cwrightarccarrow}{arrows}{\mathrel}
957 \fdsy@DeclareSymbol{\nelcurvearrow}{arrows}{\mathrel}
958 \fdsy@DeclareSymbol{\nwlcurvearrow}{arrows}{\mathrel}
959 \fdsy@DeclareSymbol{\swlcurvearrow}{arrows}{\mathrel}
960 \fdsy@DeclareAlias{\cwundercurvearrow}{arrows}{\mathrel}
961 \fdsy@DeclareSymbol{\selcurvearrow}{arrows}{\mathrel}
962 \fdsy@DeclareSymbol{\rightcurvearrow}{arrows}{\mathrel}
963 \fdsy@DeclareAlias{\acwunderarccarrow}{arrows}{\mathrel}
964 \fdsy@DeclareSymbol{\uprcurvearrow}{arrows}{\mathrel}
965 \fdsy@DeclareSymbol{\leftrcurvearrow}{arrows}{\mathrel}
966 \fdsy@DeclareAlias{\curvearrowleft}{arrows}{\mathrel}
967 \fdsy@DeclareAlias{\acwoverarccarrow}{arrows}{\mathrel}
968 \fdsy@DeclareSymbol{\downrcurvearrow}{arrows}{\mathrel}
969 \fdsy@DeclareAlias{\acwleftarccarrow}{arrows}{\mathrel}
970 \fdsy@DeclareSymbol{\nercurvearrow}{arrows}{\mathrel}
971 \fdsy@DeclareSymbol{\nwrcurvearrow}{arrows}{\mathrel}
972 \fdsy@DeclareSymbol{\swrcurvearrow}{arrows}{\mathrel}
973 \fdsy@DeclareSymbol{\sercurvearrow}{arrows}{\mathrel}
974 \fdsy@DeclareAlias{\ccwundercurvearrow}{arrows}{\mathrel}
975 \fdsy@DeclareSymbol{\leftrightcurvearrow}{arrows}{\mathrel}
976 \fdsy@DeclareSymbol{\updowncurvearrow}{arrows}{\mathrel}
977 \fdsy@DeclareSymbol{\rightleftcurvearrow}{arrows}{\mathrel}
978 \fdsy@DeclareSymbol{\downupcurvearrow}{arrows}{\mathrel}
979 \fdsy@DeclareSymbol{\neswcurvearrow}{arrows}{\mathrel}
980 \fdsy@DeclareSymbol{\nwsecurvearrow}{arrows}{\mathrel}

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981 \fdsy@DeclareSymbol{\swnecurvearrow}{arrows}{\mathrel}
982 \fdsy@DeclareSymbol{\senwcurvearrow}{arrows}{\mathrel}
983 \fdsy@DeclareSymbol{\leftfootline}{arrows}{\mathrel}
984 \fdsy@DeclareAlias{\vlongdash}{arrows}{\mathrel}
985 \fdsy@DeclareSymbol{\rightfootline}{arrows}{\mathrel}
986 \fdsy@DeclareAlias{\longdashv}{arrows}{\mathrel}
987 \fdsy@DeclareSymbol{\acwcirclearrowup}{arrows}{\mathrel}
988 \fdsy@DeclareSymbol{\acwcirclearrowleft}{arrows}{\mathrel}
989 \fdsy@DeclareAlias{\circlearrowleft}{arrows}{\mathrel}
990 \fdsy@DeclareAlias{\acwopencirclearrow}{arrows}{\mathrel}
991 \fdsy@DeclareSymbol{\acwcirclearrowdown}{arrows}{\mathrel}
992 \fdsy@DeclareAlias{\acwgapcirclearrow}{arrows}{\mathrel}
993 \fdsy@DeclareSymbol{\acwcirclearrowright}{arrows}{\mathrel}
994 \fdsy@DeclareSymbol{\cwcirclearrowdown}{arrows}{\mathrel}
995 \fdsy@DeclareAlias{\cwgapcirclearrow}{arrows}{\mathrel}
996 \fdsy@DeclareSymbol{\cwcirclearrowright}{arrows}{\mathrel}
997 \fdsy@DeclareAlias{\circlearrowright}{arrows}{\mathrel}
998 \fdsy@DeclareAlias{\cwopencirclearrow}{arrows}{\mathrel}
999 \fdsy@DeclareSymbol{\cwcirclearrowup}{arrows}{\mathrel}
1000 \fdsy@DeclareSymbol{\cwcirclearrowleft}{arrows}{\mathrel}
1001 \fdsy@DeclareSymbol{\Rrightarrow}{arrows}{\mathrel}
1002 \fdsy@DeclareSymbol{\Uparrow}{arrows}{\mathrel}
1003 \fdsy@DeclareSymbol{\Lleftarrow}{arrows}{\mathrel}
1004 \fdsy@DeclareSymbol{\Ddownarrow}{arrows}{\mathrel}
1005 \fdsy@DeclareSymbol{\Lsh}{arrows}{\mathrel}
1006 \fdsy@DeclareSymbol{\Rsh}{arrows}{\mathrel}
1007 \fdsy@DeclareSymbol{\Ldsh}{arrows}{\mathrel}
1008 \fdsy@DeclareSymbol{\Rdsh}{arrows}{\mathrel}
1009 \fdsy@DeclareSymbol{\looparrowright}{arrows}{\mathrel}
1010 \fdsy@DeclareSymbol{\looparrowleft}{arrows}{\mathrel}
1011 \fdsy@setslot{224}
1012 \fdsy@DeclareSymbol{\rightvdash}{arrows}{\mathrel}
1013 \fdsy@DeclareAlias{\vdash}{arrows}{\mathrel}
1014 \fdsy@DeclareAlias{\assert}{arrows}{\mathrel}
1015 \fdsy@DeclareSymbol{\upvdash}{arrows}{\mathrel}
1016 \fdsy@DeclareAlias{\perp}{arrows}{\mathrel}
1017 \fdsy@DeclareSymbol{\leftvdash}{arrows}{\mathrel}
1018 \fdsy@DeclareAlias{\dashv}{arrows}{\mathrel}
1019 \fdsy@DeclareSymbol{\downvdash}{arrows}{\mathrel}
1020 \fdsy@DeclareSymbol{\rightvDash}{arrows}{\mathrel}
1021 \fdsy@DeclareAlias{\vDash}{arrows}{\mathrel}
1022 \fdsy@DeclareAlias{\models}{arrows}{\mathrel}
1023 \fdsy@DeclareSymbol{\upvDash}{arrows}{\mathrel}
1024 \fdsy@DeclareAlias{\Vbar}{arrows}{\mathrel}
1025 \fdsy@DeclareSymbol{\leftvDash}{arrows}{\mathrel}

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1026 \fdsy@DeclareAlias{\Dashv}{arrows}{\mathrel}
1027 \fdsy@DeclareSymbol{\downvDash}{arrows}{\mathrel}
1028 \fdsy@DeclareAlias{\barV}{arrows}{\mathrel}
1029 \fdsy@DeclareSymbol{\rightVdash}{arrows}{\mathrel}
1030 \fdsy@DeclareAlias{\Vdash}{arrows}{\mathrel}
1031 \fdsy@DeclareSymbol{\upVdash}{arrows}{\mathrel}
1032 \fdsy@DeclareSymbol{\leftVdash}{arrows}{\mathrel}
1033 \fdsy@DeclareAlias{\dashV}{arrows}{\mathrel}
1034 \fdsy@DeclareSymbol{\downVdash}{arrows}{\mathrel}
1035 \fdsy@DeclareSymbol{\rightVDash}{arrows}{\mathrel}
1036 \fdsy@DeclareAlias{\VDash}{arrows}{\mathrel}
1037 \fdsy@DeclareSymbol{\upVDash}{arrows}{\mathrel}
1038 \fdsy@DeclareSymbol{\leftVDash}{arrows}{\mathrel}
1039 \fdsy@DeclareAlias{\DashV}{arrows}{\mathrel}
1040 \fdsy@DeclareSymbol{\downVDash}{arrows}{\mathrel}
1041 \fdsy@DeclareSymbol{\Vvdash}{arrows}{\mathrel}
1042
1043 \DeclareRobustCommand{\relbar}{\mathrel{\smash{-}}}
1044 \DeclareRobustCommand{\Relbar}{\mathrel{=}}
1045 \let\joinrel\undefined
1046 \DeclareRobustCommand\joinrel{\mathrel{\mkern-4mu}}
1047 \DeclareRobustCommand\longrightarrow{\DOTSB\relbar\joinrel\rightarrow}
1048 \DeclareRobustCommand\longleftarrow{\DOTSB\leftarrow\joinrel\relbar}
1049 \DeclareRobustCommand\longleftrightarrow{\DOTSB\leftarrow\joinrel\rightarrow}
1050 \DeclareRobustCommand\Longrightarrow{\DOTSB\Relbar\joinrel\Rightarrow}
1051 \DeclareRobustCommand\Longleftarrow{\DOTSB\Leftarrow\joinrel\Relbar}
1052 \DeclareRobustCommand\Longleftrightarrow{\DOTSB\Leftarrow\joinrel\Rightarrow}
1053 \DeclareRobustCommand\longmapsto{\DOTSB\leftfootline\mkern-7mu\rightarrow}
1054 \DeclareRobustCommand\emptyblackspoon{\DOTSB\leftspoon\mkern-13mu\rightblackspoon}
1055 \let\origof\emptyblackspoon
1056 \DeclareRobustCommand\filledemptyspoon{\DOTSB\leftblackspoon\mkern-13mu\rightspoon}
1057 \let\imageof\filledemptyspoon
1058 \DeclareRobustCommand\leftrightspoon{\DOTSB\leftspoon\mkern-13mu\rightspoon}
1059 \let\dualmap\leftrightspoon
1060 \DeclareRobustCommand\leftrightblackspoon{\DOTSB\leftblackspoon\mkern-13mu\rightblackspoon}

  FdSymbolD: stroked arrows
1061 \fdsy@setslot{0}
1062 \fdsy@DeclareSymbol{\nrightarrow}{narrows}{\mathrel}
1063 \fdsy@DeclareAlias{\nto}{narrows}{\mathrel}
1064 \fdsy@DeclareSymbol{\nuparrow}{narrows}{\mathrel}
1065 \fdsy@DeclareSymbol{\nleftarrow}{narrows}{\mathrel}
1066 \fdsy@DeclareAlias{\ngets}{narrows}{\mathrel}
1067 \fdsy@DeclareSymbol{\ndownarrow}{narrows}{\mathrel}
1068 \fdsy@DeclareSymbol{\nnearrow}{narrows}{\mathrel}
1069 \fdsy@DeclareSymbol{\nnwarrow}{narrows}{\mathrel}

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1070 \fdsy@DeclareSymbol{\nswarrow}{narrows}{\mathrel}
1071 \fdsy@DeclareSymbol{\nsearrow}{narrows}{\mathrel}
1072 \fdsy@DeclareSymbol{\nrightarrow}{narrows}{\mathrel}
1073 \fdsy@DeclareSymbol{\nuparrow}{narrows}{\mathrel}
1074 \fdsy@DeclareSymbol{\nleftarrow}{narrows}{\mathrel}
1075 \fdsy@DeclareSymbol{\ndownarrow}{narrows}{\mathrel}
1076 \fdsy@DeclareSymbol{\nnearrow}{narrows}{\mathrel}
1077 \fdsy@DeclareSymbol{\nnwarrow}{narrows}{\mathrel}
1078 \fdsy@DeclareSymbol{\nswarrow}{narrows}{\mathrel}
1079 \fdsy@DeclareSymbol{\nsearrow}{narrows}{\mathrel}
1080 \fdsy@DeclareSymbol{\nlefttrightharpoonup}{narrows}{\mathrel}
1081 \fdsy@DeclareSymbol{\nupdownarrow}{narrows}{\mathrel}
1082 \fdsy@DeclareSymbol{\nneswarrow}{narrows}{\mathrel}
1083 \fdsy@DeclareSymbol{\nnwsearrow}{narrows}{\mathrel}
1084 \fdsy@DeclareSymbol{\nLefttrightharpoonup}{narrows}{\mathrel}
1085 \fdsy@DeclareSymbol{\nUpdownarrow}{narrows}{\mathrel}
1086 \fdsy@DeclareSymbol{\nNeswarrow}{narrows}{\mathrel}
1087 \fdsy@DeclareSymbol{\nNwsearrow}{narrows}{\mathrel}
1088 \fdsy@DeclareSymbol{\ntwoheadrightarrow}{narrows}{\mathrel}
1089 \fdsy@DeclareSymbol{\ntwoheaduparrow}{narrows}{\mathrel}
1090 \fdsy@DeclareSymbol{\ntwoheadleftarrow}{narrows}{\mathrel}
1091 \fdsy@DeclareSymbol{\ntwoheaddownarrow}{narrows}{\mathrel}
1092 \fdsy@DeclareSymbol{\ntwoheadnearrow}{narrows}{\mathrel}
1093 \fdsy@DeclareSymbol{\ntwoheadnwarrow}{narrows}{\mathrel}
1094 \fdsy@DeclareSymbol{\ntwoheadswarrow}{narrows}{\mathrel}
1095 \fdsy@DeclareSymbol{\ntwoheadsearrow}{narrows}{\mathrel}
1096 \fdsy@DeclareSymbol{\nrightarrowtail}{narrows}{\mathrel}
1097 \fdsy@DeclareSymbol{\nuparrowtail}{narrows}{\mathrel}
1098 \fdsy@DeclareSymbol{\nleftarrowtail}{narrows}{\mathrel}
1099 \fdsy@DeclareSymbol{\ndownarrowtail}{narrows}{\mathrel}
1100 \fdsy@DeclareSymbol{\nnearrowtail}{narrows}{\mathrel}
1101 \fdsy@DeclareSymbol{\nnwarrowtail}{narrows}{\mathrel}
1102 \fdsy@DeclareSymbol{\nswarrowtail}{narrows}{\mathrel}
1103 \fdsy@DeclareSymbol{\nsearrowtail}{narrows}{\mathrel}
1104 \fdsy@DeclareSymbol{\nrightarrowtail}{narrows}{\mathrel}
1105 \fdsy@DeclareAlias{\nmapsto}{narrows}{\mathrel}
1106 \fdsy@DeclareSymbol{\nupmapsto}{narrows}{\mathrel}
1107 \fdsy@DeclareAlias{\nmapsup}{narrows}{\mathrel}
1108 \fdsy@DeclareSymbol{\nleftmapsto}{narrows}{\mathrel}
1109 \fdsy@DeclareAlias{\nmapsfrom}{narrows}{\mathrel}
1110 \fdsy@DeclareSymbol{\ndownmapsto}{narrows}{\mathrel}
1111 \fdsy@DeclareAlias{\nmapsdown}{narrows}{\mathrel}
1112 \fdsy@DeclareSymbol{\nnemapsto}{narrows}{\mathrel}
1113 \fdsy@DeclareSymbol{\nnwmapsto}{narrows}{\mathrel}
1114 \fdsy@DeclareSymbol{\nswmapsto}{narrows}{\mathrel}

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1115 \fdsy@DeclareSymbol{\nsemapsto}{narrows}{\mathrel}
1116 \fdsy@DeclareSymbol{\nlhookrightarrow}{narrows}{\mathrel}
1117 \fdsy@DeclareAlias{\nhookrightarrow}{narrows}{\mathrel}
1118 \fdsy@DeclareSymbol{\nlhookuparrow}{narrows}{\mathrel}
1119 \fdsy@DeclareSymbol{\nlhookleftarrow}{narrows}{\mathrel}
1120 \fdsy@DeclareSymbol{\nlhookdownarrow}{narrows}{\mathrel}
1121 \fdsy@DeclareSymbol{\nlhooknearrow}{narrows}{\mathrel}
1122 \fdsy@DeclareSymbol{\nlhooknwarrow}{narrows}{\mathrel}
1123 \fdsy@DeclareAlias{\nhknwarrow}{narrows}{\mathrel}
1124 \fdsy@DeclareSymbol{\nlhookswarrow}{narrows}{\mathrel}
1125 \fdsy@DeclareSymbol{\nlhooksearrow}{narrows}{\mathrel}
1126 \fdsy@DeclareAlias{\nhksearrow}{narrows}{\mathrel}
1127 \fdsy@DeclareSymbol{\nrhookrightarrow}{narrows}{\mathrel}
1128 \fdsy@DeclareSymbol{\nrhookuparrow}{narrows}{\mathrel}
1129 \fdsy@DeclareSymbol{\nrhookleftarrow}{narrows}{\mathrel}
1130 \fdsy@DeclareAlias{\nhookleftarrow}{narrows}{\mathrel}
1131 \fdsy@DeclareSymbol{\nrhookdownarrow}{narrows}{\mathrel}
1132 \fdsy@DeclareSymbol{\nrhooknearrow}{narrows}{\mathrel}
1133 \fdsy@DeclareAlias{\nhknearrow}{narrows}{\mathrel}
1134 \fdsy@DeclareSymbol{\nrhooknwarrow}{narrows}{\mathrel}
1135 \fdsy@DeclareSymbol{\nrhookswarrow}{narrows}{\mathrel}
1136 \fdsy@DeclareAlias{\nhkswarrow}{narrows}{\mathrel}
1137 \fdsy@DeclareSymbol{\nrhooksearrow}{narrows}{\mathrel}
1138 \fdsy@DeclareSymbol{\nrightharpoonup}{narrows}{\mathrel}
1139 \fdsy@DeclareSymbol{\nupharpoonleft}{narrows}{\mathrel}
1140 \fdsy@DeclareSymbol{\nleftharpoondown}{narrows}{\mathrel}
1141 \fdsy@DeclareSymbol{\ndownharpoonright}{narrows}{\mathrel}
1142 \fdsy@DeclareSymbol{\nneharpoonnw}{narrows}{\mathrel}
1143 \fdsy@DeclareSymbol{\nnwharpoonsw}{narrows}{\mathrel}
1144 \fdsy@DeclareSymbol{\nswharpoonse}{narrows}{\mathrel}
1145 \fdsy@DeclareSymbol{\nseharpoonne}{narrows}{\mathrel}
1146 \fdsy@DeclareSymbol{\nrightharpoondown}{narrows}{\mathrel}
1147 \fdsy@DeclareSymbol{\nupharpoonright}{narrows}{\mathrel}
1148 \fdsy@DeclareAlias{\nrestriction}{narrows}{\mathrel}
1149 \fdsy@DeclareSymbol{\nleftharpoonup}{narrows}{\mathrel}
1150 \fdsy@DeclareSymbol{\ndownharpoonleft}{narrows}{\mathrel}
1151 \fdsy@DeclareSymbol{\nneharpoonse}{narrows}{\mathrel}
1152 \fdsy@DeclareSymbol{\nnwharpoonne}{narrows}{\mathrel}
1153 \fdsy@DeclareSymbol{\nswharpoonnw}{narrows}{\mathrel}
1154 \fdsy@DeclareSymbol{\nseharpoonsw}{narrows}{\mathrel}
1155 \fdsy@DeclareSymbol{\nleftrightharpoonupdown}{narrows}{\mathrel}
1156 \fdsy@DeclareSymbol{\nupdownharpoonleftright}{narrows}{\mathrel}
1157 \fdsy@DeclareSymbol{\nneswharpoonnwse}{narrows}{\mathrel}
1158 \fdsy@DeclareSymbol{\nnwseharpoonnesw}{narrows}{\mathrel}
1159 \fdsy@DeclareSymbol{\nleftrightharpoondownup}{narrows}{\mathrel}

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1160 \fdsy@DeclareSymbol{\nupdownharpoonrightleft}{narrows}{\mathrel}
1161 \fdsy@DeclareSymbol{\nneswharpoonsenw}{narrows}{\mathrel}
1162 \fdsy@DeclareSymbol{\nnwseharpoonswne}{narrows}{\mathrel}
1163 \fdsy@DeclareSymbol{\nrightleftharpoons}{narrows}{\mathrel}
1164 \fdsy@DeclareSymbol{\nupdownharpoons}{narrows}{\mathrel}
1165 \fdsy@DeclareAlias{\nupdownharpoonsleftright}{narrows}{\mathrel}
1166 \fdsy@DeclareSymbol{\nneswharpoons}{narrows}{\mathrel}
1167 \fdsy@DeclareSymbol{\nsenwharpoons}{narrows}{\mathrel}
1168 \fdsy@DeclareSymbol{\nlefttrightharpoons}{narrows}{\mathrel}
1169 \fdsy@DeclareSymbol{\ndownupharpoons}{narrows}{\mathrel}
1170 \fdsy@DeclareAlias{\ndownupharpoonsleftright}{narrows}{\mathrel}
1171 \fdsy@DeclareSymbol{\nswneharpoons}{narrows}{\mathrel}
1172 \fdsy@DeclareSymbol{\nnwseharpoons}{narrows}{\mathrel}
1173 \fdsy@DeclareSymbol{\nrightbkarrow}{narrows}{\mathrel}
1174 \fdsy@DeclareAlias{\ndasharrow}{narrows}{\mathrel}
1175 \fdsy@DeclareAlias{\ndashrightarrow}{narrows}{\mathrel}
1176 \fdsy@DeclareSymbol{\nupbkarrow}{narrows}{\mathrel}
1177 \fdsy@DeclareSymbol{\nleftbkarrow}{narrows}{\mathrel}
1178 \fdsy@DeclareAlias{\ndashleftarrow}{narrows}{\mathrel}
1179 \fdsy@DeclareSymbol{\ndownbkarrow}{narrows}{\mathrel}
1180 \fdsy@DeclareSymbol{\nnebkarrow}{narrows}{\mathrel}
1181 \fdsy@DeclareSymbol{\nnwbkarrow}{narrows}{\mathrel}
1182 \fdsy@DeclareSymbol{\nswbkarrow}{narrows}{\mathrel}
1183 \fdsy@DeclareSymbol{\nsebkarrow}{narrows}{\mathrel}
1184 \fdsy@DeclareSymbol{\nrightspoon}{narrows}{\mathrel}
1185 \fdsy@DeclareAlias{\nmultimap}{narrows}{\mathrel}
1186 \fdsy@DeclareSymbol{\nupspoon}{narrows}{\mathrel}
1187 \fdsy@DeclareAlias{\ncirmid}{narrows}{\mathrel}
1188 \fdsy@DeclareSymbol{\nleftspoon}{narrows}{\mathrel}
1189 \fdsy@DeclareAlias{\nmultimapinv}{narrows}{\mathrel}
1190 \fdsy@DeclareSymbol{\ndownspoon}{narrows}{\mathrel}
1191 \fdsy@DeclareAlias{\nmidcir}{narrows}{\mathrel}
1192 \fdsy@DeclareSymbol{\nrightblackspoon}{narrows}{\mathrel}
1193 \fdsy@DeclareSymbol{\nupblackspoon}{narrows}{\mathrel}
1194 \fdsy@DeclareSymbol{\nleftblackspoon}{narrows}{\mathrel}
1195 \fdsy@DeclareSymbol{\ndownblackspoon}{narrows}{\mathrel}
1196 \fdsy@DeclareSymbol{\nrightpitchfork}{narrows}{\mathrel}
1197 \fdsy@DeclareSymbol{\nuppitchfork}{narrows}{\mathrel}
1198 \fdsy@DeclareAlias{\npitchfork}{narrows}{\mathrel}
1199 \fdsy@DeclareSymbol{\nleftpitchfork}{narrows}{\mathrel}
1200 \fdsy@DeclareSymbol{\ndownpitchfork}{narrows}{\mathrel}
1201 \fdsy@DeclareSymbol{\nrightrightarrows}{narrows}{\mathrel}
1202 \fdsy@DeclareSymbol{\nupuparrows}{narrows}{\mathrel}
1203 \fdsy@DeclareSymbol{\nleftleftarrows}{narrows}{\mathrel}
1204 \fdsy@DeclareSymbol{\ndowndownarrows}{narrows}{\mathrel}

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1205 \fdsy@DeclareSymbol{\nnenearrows}{narrows}{\mathrel}
1206 \fdsy@DeclareSymbol{\nnwnwarrows}{narrows}{\mathrel}
1207 \fdsy@DeclareSymbol{\nswswarrows}{narrows}{\mathrel}
1208 \fdsy@DeclareSymbol{\nsesearrows}{narrows}{\mathrel}
1209 \fdsy@DeclareSymbol{\nrightleftarrows}{narrows}{\mathrel}
1210 \fdsy@DeclareSymbol{\nupdownarrows}{narrows}{\mathrel}
1211 \fdsy@DeclareSymbol{\nneswarrows}{narrows}{\mathrel}
1212 \fdsy@DeclareSymbol{\nnwsearrows}{narrows}{\mathrel}
1213 \fdsy@DeclareSymbol{\nlefttrightarrows}{narrows}{\mathrel}
1214 \fdsy@DeclareSymbol{\ndownuparrows}{narrows}{\mathrel}
1215 \fdsy@DeclareSymbol{\nswnearrows}{narrows}{\mathrel}
1216 \fdsy@DeclareSymbol{\nsenwarrows}{narrows}{\mathrel}
1217 \fdsy@DeclareSymbol{\nrightlsquigarrow}{narrows}{\mathrel}
1218 \fdsy@DeclareAlias{\nleadsto}{narrows}{\mathrel}
1219 \fdsy@DeclareAlias{\nrightrsquigarrow}{narrows}{\mathrel}
1220 \fdsy@DeclareSymbol{\nuplsquigarrow}{narrows}{\mathrel}
1221 \fdsy@DeclareSymbol{\nleftlsquigarrow}{narrows}{\mathrel}
1222 \fdsy@DeclareSymbol{\ndownlsquigarrow}{narrows}{\mathrel}
1223 \fdsy@DeclareSymbol{\nrightrsquigarrow}{narrows}{\mathrel}
1224 \fdsy@DeclareSymbol{\nuprsquigarrow}{narrows}{\mathrel}
1225 \fdsy@DeclareSymbol{\nleftrsquigarrow}{narrows}{\mathrel}
1226 \fdsy@DeclareAlias{\nleftsquigarrow}{narrows}{\mathrel}
1227 \fdsy@DeclareSymbol{\ndownrsquigarrow}{narrows}{\mathrel}
1228 \fdsy@DeclareSymbol{\nleftightsquigarrow}{narrows}{\mathrel}
1229 \fdsy@DeclareSymbol{\nupdownsquigarrow}{narrows}{\mathrel}
1230 \fdsy@DeclareSymbol{\nrightleftsquigarrow}{narrows}{\mathrel}
1231 \fdsy@DeclareSymbol{\ndownupsquigarrow}{narrows}{\mathrel}
1232 \fdsy@DeclareSymbol{\nrightlcurvearrow}{narrows}{\mathrel}
1233 \fdsy@DeclareAlias{\ncurvearrowright}{narrows}{\mathrel}
1234 \fdsy@DeclareSymbol{\nuplcurvearrow}{narrows}{\mathrel}
1235 \fdsy@DeclareSymbol{\nleftlcurvearrow}{narrows}{\mathrel}
1236 \fdsy@DeclareSymbol{\ndownlcurvearrow}{narrows}{\mathrel}
1237 \fdsy@DeclareAlias{\ncwrightarcarrow}{narrows}{\mathrel}
1238 \fdsy@DeclareSymbol{\nnelcurvearrow}{narrows}{\mathrel}
1239 \fdsy@DeclareSymbol{\nnwlcurvearrow}{narrows}{\mathrel}
1240 \fdsy@DeclareSymbol{\nswlcurvearrow}{narrows}{\mathrel}
1241 \fdsy@DeclareAlias{\ncwundercurvearrow}{narrows}{\mathrel}
1242 \fdsy@DeclareSymbol{\nsecurvearrow}{narrows}{\mathrel}
1243 \fdsy@DeclareSymbol{\nrightrcurvearrow}{narrows}{\mathrel}
1244 \fdsy@DeclareAlias{\nacwunderarcarrow}{narrows}{\mathrel}
1245 \fdsy@DeclareSymbol{\nuprcurvearrow}{narrows}{\mathrel}
1246 \fdsy@DeclareSymbol{\nleftrcurvearrow}{narrows}{\mathrel}
1247 \fdsy@DeclareAlias{\ncurvearrowleft}{narrows}{\mathrel}
1248 \fdsy@DeclareAlias{\nacwoverarcarrow}{narrows}{\mathrel}
1249 \fdsy@DeclareSymbol{\ndownrcurvearrow}{narrows}{\mathrel}

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1250 \fdsy@DeclareAlias{\nacwleftarccarrow}{narrows}{\mathrel}
1251 \fdsy@DeclareSymbol{\innercurvearrow}{narrows}{\mathrel}
1252 \fdsy@DeclareSymbol{\nnwrcurvearrow}{narrows}{\mathrel}
1253 \fdsy@DeclareSymbol{\nswrcurvearrow}{narrows}{\mathrel}
1254 \fdsy@DeclareSymbol{\nsercurvearrow}{narrows}{\mathrel}
1255 \fdsy@DeclareAlias{\nccwundercurvearrow}{narrows}{\mathrel}
1256 \fdsy@DeclareSymbol{\nletrightcurvearrow}{narrows}{\mathrel}
1257 \fdsy@DeclareSymbol{\nupdowncurvearrow}{narrows}{\mathrel}
1258 \fdsy@DeclareSymbol{\nrightrightcurvearrow}{narrows}{\mathrel}
1259 \fdsy@DeclareSymbol{\ndownupcurvearrow}{narrows}{\mathrel}
1260 \fdsy@DeclareSymbol{\nneswcurvearrow}{narrows}{\mathrel}
1261 \fdsy@DeclareSymbol{\nnwsecurvearrow}{narrows}{\mathrel}
1262 \fdsy@DeclareSymbol{\nswnecurvearrow}{narrows}{\mathrel}
1263 \fdsy@DeclareSymbol{\nsenwcurvearrow}{narrows}{\mathrel}
1264 \fdsy@DeclareSymbol{\nleftfootline}{narrows}{\mathrel}
1265 \fdsy@DeclareAlias{\nvlongdash}{narrows}{\mathrel}
1266 \fdsy@DeclareSymbol{\nrightrightfootline}{narrows}{\mathrel}
1267 \fdsy@DeclareAlias{\nlongdashv}{narrows}{\mathrel}
1268 \fdsy@DeclareSymbol{\nacwcirculararrowup}{narrows}{\mathrel}
1269 \fdsy@DeclareSymbol{\nacwcirculararrowleft}{narrows}{\mathrel}
1270 \fdsy@DeclareAlias{\ncirculararrowleft}{narrows}{\mathrel}
1271 \fdsy@DeclareAlias{\nacwopencirculararrow}{narrows}{\mathrel}
1272 \fdsy@DeclareSymbol{\nacwcirculararrowdown}{narrows}{\mathrel}
1273 \fdsy@DeclareAlias{\nacwgapcirculararrow}{narrows}{\mathrel}
1274 \fdsy@DeclareSymbol{\nacwcirculararrowright}{narrows}{\mathrel}
1275 \fdsy@DeclareSymbol{\ncwcirculararrowdown}{narrows}{\mathrel}
1276 \fdsy@DeclareAlias{\ncwgapcirculararrow}{narrows}{\mathrel}
1277 \fdsy@DeclareSymbol{\ncwcirculararrowright}{narrows}{\mathrel}
1278 \fdsy@DeclareAlias{\ncirculararrowright}{narrows}{\mathrel}
1279 \fdsy@DeclareAlias{\ncwopencirculararrow}{narrows}{\mathrel}
1280 \fdsy@DeclareSymbol{\ncwcirculararrowup}{narrows}{\mathrel}
1281 \fdsy@DeclareSymbol{\ncwcirculararrowleft}{narrows}{\mathrel}
1282 \fdsy@DeclareSymbol{\nRrightarrow}{narrows}{\mathrel}
1283 \fdsy@DeclareSymbol{\nUparrow}{narrows}{\mathrel}
1284 \fdsy@DeclareSymbol{\nLleftarrow}{narrows}{\mathrel}
1285 \fdsy@DeclareSymbol{\nDdownarrow}{narrows}{\mathrel}
1286 \fdsy@setslot{224}
1287 \fdsy@DeclareSymbol{\nrightvdash}{narrows}{\mathrel}
1288 \fdsy@DeclareAlias{\nvdash}{narrows}{\mathrel}
1289 \fdsy@DeclareAlias{\nassert}{narrows}{\mathrel}
1290 \fdsy@DeclareSymbol{\nupvdash}{narrows}{\mathrel}
1291 \fdsy@DeclareAlias{\nperp}{narrows}{\mathrel}
1292 \fdsy@DeclareSymbol{\nleftvdash}{narrows}{\mathrel}
1293 \fdsy@DeclareAlias{\ndashv}{narrows}{\mathrel}
1294 \fdsy@DeclareSymbol{\ndownvdash}{narrows}{\mathrel}

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1295 \fdsy@DeclareSymbol{\nrightvDash}{narrows}{\mathrel}
1296 \fdsy@DeclareAlias{\nvDash}{narrows}{\mathrel}
1297 \fdsy@DeclareAlias{\nmodels}{narrows}{\mathrel}
1298 \fdsy@DeclareSymbol{\nupvDash}{narrows}{\mathrel}
1299 \fdsy@DeclareAlias{\nVbar}{narrows}{\mathrel}
1300 \fdsy@DeclareSymbol{\nleftvDash}{narrows}{\mathrel}
1301 \fdsy@DeclareAlias{\nDashv}{narrows}{\mathrel}
1302 \fdsy@DeclareSymbol{\ndownvDash}{narrows}{\mathrel}
1303 \fdsy@DeclareAlias{\nbarV}{narrows}{\mathrel}
1304 \fdsy@DeclareSymbol{\nrightVdash}{narrows}{\mathrel}
1305 \fdsy@DeclareAlias{\nVdash}{narrows}{\mathrel}
1306 \fdsy@DeclareSymbol{\nupVdash}{narrows}{\mathrel}
1307 \fdsy@DeclareSymbol{\nleftVdash}{narrows}{\mathrel}
1308 \fdsy@DeclareAlias{\ndashV}{narrows}{\mathrel}
1309 \fdsy@DeclareSymbol{\ndownVdash}{narrows}{\mathrel}
1310 \fdsy@DeclareSymbol{\nrightVDash}{narrows}{\mathrel}
1311 \fdsy@DeclareAlias{\nVDash}{narrows}{\mathrel}
1312 \fdsy@DeclareSymbol{\nupVDash}{narrows}{\mathrel}
1313 \fdsy@DeclareSymbol{\nleftVDash}{narrows}{\mathrel}
1314 \fdsy@DeclareAlias{\nDashV}{narrows}{\mathrel}
1315 \fdsy@DeclareSymbol{\ndownVDash}{narrows}{\mathrel}

FdSymbolE: large operators
1316 \fdsy@setslot{0}
1317 \fdsy@DeclareSymbol{\tbigplus}{largesymbols}{\mathop}
1318 \fdsy@DeclareSymbol{\dbigplus}{largesymbols}{\mathop}
1319 \fdsy@DeclareSymbol{\tbigtimes}{largesymbols}{\mathop}
1320 \fdsy@DeclareSymbol{\dbigtimes}{largesymbols}{\mathop}
1321 \fdsy@DeclareSymbol{\tbigwedge}{largesymbols}{\mathop}
1322 \fdsy@DeclareSymbol{\dbigwedge}{largesymbols}{\mathop}
1323 \fdsy@DeclareSymbol{\tbigvee}{largesymbols}{\mathop}
1324 \fdsy@DeclareSymbol{\dbigvee}{largesymbols}{\mathop}
1325 \fdsy@DeclareSymbol{\tbigwedgedot}{largesymbols}{\mathop}
1326 \fdsy@DeclareSymbol{\dbigwedgedot}{largesymbols}{\mathop}
1327 \fdsy@DeclareSymbol{\tbigveedot}{largesymbols}{\mathop}
1328 \fdsy@DeclareSymbol{\dbigveedot}{largesymbols}{\mathop}
1329 \fdsy@DeclareSymbol{\tbigdoublewedge}{largesymbols}{\mathop}
1330 \fdsy@DeclareAlias{\tconjquant}{largesymbols}{\mathop}
1331 \fdsy@DeclareSymbol{\dbigdoublewedge}{largesymbols}{\mathop}
1332 \fdsy@DeclareAlias{\dconjquant}{largesymbols}{\mathop}
1333 \fdsy@DeclareSymbol{\tbigdoublevee}{largesymbols}{\mathop}
1334 \fdsy@DeclareAlias{\tdisjquant}{largesymbols}{\mathop}
1335 \fdsy@DeclareSymbol{\dbigdoublevee}{largesymbols}{\mathop}
1336 \fdsy@DeclareAlias{\ddisjquant}{largesymbols}{\mathop}
1337 \fdsy@DeclareSymbol{\tbigcurlywedge}{largesymbols}{\mathop}
1338 \fdsy@DeclareSymbol{\dbigcurlywedge}{largesymbols}{\mathop}

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1339 \fdsy@DeclareSymbol{\tbigcurlyvee}{largesymbols}{\mathop}
1340 \fdsy@DeclareSymbol{\dbigcurlyvee}{largesymbols}{\mathop}
1341 \fdsy@DeclareSymbol{\tbigcurlywedgedot}{largesymbols}{\mathop}
1342 \fdsy@DeclareSymbol{\dbigcurlywedgedot}{largesymbols}{\mathop}
1343 \fdsy@DeclareSymbol{\tbigcurlyveedot}{largesymbols}{\mathop}
1344 \fdsy@DeclareSymbol{\dbigcurlyveedot}{largesymbols}{\mathop}
1345 \fdsy@DeclareSymbol{\tbigdoublecurlywedge}{largesymbols}{\mathop}
1346 \fdsy@DeclareSymbol{\dbigdoublecurlywedge}{largesymbols}{\mathop}
1347 \fdsy@DeclareSymbol{\tbigdoublecurlyvee}{largesymbols}{\mathop}
1348 \fdsy@DeclareSymbol{\dbigdoublecurlyvee}{largesymbols}{\mathop}
1349 \fdsy@DeclareSymbol{\tbigcap}{largesymbols}{\mathop}
1350 \fdsy@DeclareSymbol{\dbigcap}{largesymbols}{\mathop}
1351 \fdsy@DeclareSymbol{\tbigcup}{largesymbols}{\mathop}
1352 \fdsy@DeclareSymbol{\dbigcup}{largesymbols}{\mathop}
1353 \fdsy@DeclareSymbol{\tbigcapdot}{largesymbols}{\mathop}
1354 \fdsy@DeclareSymbol{\dbigcapdot}{largesymbols}{\mathop}
1355 \fdsy@DeclareSymbol{\tbigcupdot}{largesymbols}{\mathop}
1356 \fdsy@DeclareSymbol{\dbigcupdot}{largesymbols}{\mathop}
1357 \fdsy@DeclareSymbol{\tbigcapplus}{largesymbols}{\mathop}
1358 \fdsy@DeclareSymbol{\dbigcapplus}{largesymbols}{\mathop}
1359 \fdsy@DeclareSymbol{\tbigcupplus}{largesymbols}{\mathop}
1360 \fdsy@DeclareAlias{\tbiguplus}{largesymbols}{\mathop}
1361 \fdsy@DeclareSymbol{\dbigcupplus}{largesymbols}{\mathop}
1362 \fdsy@DeclareAlias{\dbiguplus}{largesymbols}{\mathop}
1363 \fdsy@DeclareSymbol{\tbigsqcap}{largesymbols}{\mathop}
1364 \fdsy@DeclareSymbol{\dbigsqcap}{largesymbols}{\mathop}
1365 \fdsy@DeclareSymbol{\tbigsqcup}{largesymbols}{\mathop}
1366 \fdsy@DeclareSymbol{\dbigsqcup}{largesymbols}{\mathop}
1367 \fdsy@DeclareSymbol{\tbigsqcapdot}{largesymbols}{\mathop}
1368 \fdsy@DeclareSymbol{\dbigsqcapdot}{largesymbols}{\mathop}
1369 \fdsy@DeclareSymbol{\tbigsqcupdot}{largesymbols}{\mathop}
1370 \fdsy@DeclareSymbol{\dbigsqcupdot}{largesymbols}{\mathop}
1371 \fdsy@DeclareSymbol{\tbigsqcapplus}{largesymbols}{\mathop}
1372 \fdsy@DeclareSymbol{\dbigsqcapplus}{largesymbols}{\mathop}
1373 \fdsy@DeclareSymbol{\tbigsqcupplus}{largesymbols}{\mathop}
1374 \fdsy@DeclareSymbol{\dbigsqcupplus}{largesymbols}{\mathop}
1375 \fdsy@DeclareSymbol{\tbigoplus}{largesymbols}{\mathop}
1376 \fdsy@DeclareSymbol{\dbigoplus}{largesymbols}{\mathop}
1377 \fdsy@DeclareSymbol{\tbigotimes}{largesymbols}{\mathop}
1378 \fdsy@DeclareSymbol{\dbigotimes}{largesymbols}{\mathop}
1379 \fdsy@DeclareSymbol{\tbigodot}{largesymbols}{\mathop}
1380 \fdsy@DeclareSymbol{\dbigodot}{largesymbols}{\mathop}
1381 \fdsy@DeclareSymbol{\tbigooast}{largesymbols}{\mathop}
1382 \fdsy@DeclareSymbol{\dbigoast}{largesymbols}{\mathop}
1383 \fdsy@DeclareSymbol{\tprod}{largesymbols}{\mathop}

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1384 \fdsy@DeclareSymbol{\dprod}{largesymbols}{\mathop}
1385 \fdsy@DeclareSymbol{\tcoprod}{largesymbols}{\mathop}
1386 \fdsy@DeclareSymbol{\dcoprod}{largesymbols}{\mathop}
1387 \fdsy@DeclareSymbol{\tsum}{largesymbols}{\mathop}
1388 \fdsy@DeclareSymbol{\dsum}{largesymbols}{\mathop}
1389 \fdsy@DeclareSymbol{\tosum}{largesymbols}{\mathop}
1390 \fdsy@DeclareSymbol{\dosum}{largesymbols}{\mathop}
1391 \fdsy@DeclareSymbol{\tint}{largesymbols}{\mathop}
1392 \fdsy@DeclareSymbol{\dint}{largesymbols}{\mathop}
1393 \fdsy@DeclareSymbol{\tiint}{largesymbols}{\mathop}
1394 \fdsy@DeclareSymbol{\diint}{largesymbols}{\mathop}
1395 \fdsy@DeclareSymbol{\tiiint}{largesymbols}{\mathop}
1396 \fdsy@DeclareSymbol{\diiint}{largesymbols}{\mathop}
1397 \fdsy@DeclareSymbol{\tiiiint}{largesymbols}{\mathop}
1398 \fdsy@DeclareSymbol{\diiiint}{largesymbols}{\mathop}
1399 \fdsy@DeclareSymbol{\tidotsint}{largesymbols}{\mathop}
1400 \fdsy@DeclareAlias{\tdotsint}{largesymbols}{\mathop}
1401 \fdsy@DeclareSymbol{\didotsint}{largesymbols}{\mathop}
1402 \fdsy@DeclareAlias{\ddotsint}{largesymbols}{\mathop}
1403 \fdsy@DeclareSymbol{\tlandupint}{largesymbols}{\mathop}
1404 \fdsy@DeclareAlias{\tintclockwise}{largesymbols}{\mathop}
1405 \fdsy@DeclareSymbol{\dlandupint}{largesymbols}{\mathop}
1406 \fdsy@DeclareAlias{\dintclockwise}{largesymbols}{\mathop}
1407 \fdsy@DeclareSymbol{\tlanddownint}{largesymbols}{\mathop}
1408 \fdsy@DeclareAlias{\tawint}{largesymbols}{\mathop}
1409 \fdsy@DeclareAlias{\tintctrlockwise}{largesymbols}{\mathop}
1410 \fdsy@DeclareSymbol{\dlanddownint}{largesymbols}{\mathop}
1411 \fdsy@DeclareAlias{\dawint}{largesymbols}{\mathop}
1412 \fdsy@DeclareAlias{\dintctrlockwise}{largesymbols}{\mathop}
1413 \fdsy@DeclareSymbol{\tintbar}{largesymbols}{\mathop}
1414 \fdsy@DeclareSymbol{\dintbar}{largesymbols}{\mathop}
1415 \fdsy@DeclareSymbol{\tintBar}{largesymbols}{\mathop}
1416 \fdsy@DeclareSymbol{\dintBar}{largesymbols}{\mathop}
1417 \fdsy@DeclareSymbol{\tfint}{largesymbols}{\mathop}
1418 \fdsy@DeclareSymbol{\dfint}{largesymbols}{\mathop}
1419 \fdsy@DeclareSymbol{\toint}{largesymbols}{\mathop}
1420 \fdsy@DeclareSymbol{\doint}{largesymbols}{\mathop}
1421 \fdsy@DeclareSymbol{\toiint}{largesymbols}{\mathop}
1422 \fdsy@DeclareSymbol{\doiint}{largesymbols}{\mathop}
1423 \fdsy@DeclareSymbol{\toiiint}{largesymbols}{\mathop}
1424 \fdsy@DeclareSymbol{\doiiint}{largesymbols}{\mathop}
1425 \fdsy@DeclareSymbol{\trcircularrightint}{largesymbols}{\mathop}
1426 \fdsy@DeclareAlias{\tointctrlockwise}{largesymbols}{\mathop}
1427 \fdsy@DeclareSymbol{\drcircularrightint}{largesymbols}{\mathop}
1428 \fdsy@DeclareAlias{\dointctrlockwise}{largesymbols}{\mathop}

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1429 \fdsy@DeclareSymbol{\tlcirclerightint}{largesymbols}{\mathop}
1430 \fdsy@DeclareAlias{\tvarointclockwise}{largesymbols}{\mathop}
1431 \fdsy@DeclareSymbol{\dlcirclerightint}{largesymbols}{\mathop}
1432 \fdsy@DeclareAlias{\dvarointclockwise}{largesymbols}{\mathop}
1433 \fdsy@DeclareSymbol{\trcircleleftint}{largesymbols}{\mathop}
1434 \fdsy@DeclareAlias{\tvarointctrcclockwise}{largesymbols}{\mathop}
1435 \fdsy@DeclareSymbol{\drcircleleftint}{largesymbols}{\mathop}
1436 \fdsy@DeclareAlias{\dvarointctrcclockwise}{largesymbols}{\mathop}
1437 \fdsy@DeclareSymbol{\tlcircleleftint}{largesymbols}{\mathop}
1438 \fdsy@DeclareAlias{\tointclockwise}{largesymbols}{\mathop}
1439 \fdsy@DeclareSymbol{\dlcircleleftint}{largesymbols}{\mathop}
1440 \fdsy@DeclareAlias{\dointclockwise}{largesymbols}{\mathop}
1441 \fdsy@DeclareSymbol{\tsumint}{largesymbols}{\mathop}
1442 \fdsy@DeclareSymbol{\dsumint}{largesymbols}{\mathop}
1443 \let\intop\tint
1444 \let\ointop\toint
1445
1446 \fdsy@DeclareOperator{\bigplus}{\dbigplus}{\tbigplus}
1447 \fdsy@DeclareOperator{\bigtimes}{\dbigtimes}{\tbigtimes}
1448 \fdsy@DeclareOperator{\bigwedge}{\dbigwedge}{\tbigwedge}
1449 \fdsy@DeclareOperator{\bigvee}{\dbigvee}{\tbigvee}
1450 \fdsy@DeclareOperator{\bigwedgedot}{\dbigwedgedot}{\tbigwedgedot}
1451 \fdsy@DeclareOperator{\bigveedot}{\dbigveedot}{\tbigveedot}
1452 \fdsy@DeclareOperator{\bigdoublewedge}{\dbigdoublewedge}{\tbigdoublewedge}
1453 \fdsy@DeclareOperator{\conjquant}{\dconjquant}{\tconjquant}
1454 \fdsy@DeclareOperator{\bigdoublevee}{\dbigdoublevee}{\tbigdoublevee}
1455 \fdsy@DeclareOperator{\disjquant}{\ddisjquant}{\tdisjquant}
1456 \fdsy@DeclareOperator{\bigcurlywedge}{\dbigcurlywedge}{\tbigcurlywedge}
1457 \fdsy@DeclareOperator{\bigcurlyvee}{\dbigcurlyvee}{\tbigcurlyvee}
1458 \fdsy@DeclareOperator{\bigcurlywedgedot}{\dbigcurlywedgedot}{\tbigcurlywedgedot}
1459 \fdsy@DeclareOperator{\bigcurlyveedot}{\dbigcurlyveedot}{\tbigcurlyveedot}
1460 \fdsy@DeclareOperator{\bigdoublecurlywedge}{\dbigdoublecurlywedge}{\tbigdoublecurlywedge}
1461 \fdsy@DeclareOperator{\bigdoublecurlyvee}{\dbigdoublecurlyvee}{\tbigdoublecurlyvee}
1462 \fdsy@DeclareOperator{\bigcap}{\dbigcap}{\tbigcap}
1463 \fdsy@DeclareOperator{\bigcup}{\dbigcup}{\tbigcup}
1464 \fdsy@DeclareOperator{\bigcapdot}{\dbigcapdot}{\tbigcapdot}
1465 \fdsy@DeclareOperator{\bigcupdot}{\dbigcupdot}{\tbigcupdot}
1466 \fdsy@DeclareOperator{\bigcapplus}{\dbigcapplus}{\tbigcapplus}
1467 \fdsy@DeclareOperator{\bigcupplus}{\dbigcupplus}{\tbigcupplus}
1468 \fdsy@DeclareOperator{\biguplus}{\dbiguplus}{\tbiguplus}
1469 \fdsy@DeclareOperator{\bigsqcap}{\dbigsqcap}{\tbigsqcap}
1470 \fdsy@DeclareOperator{\bigsqcup}{\dbigsqcup}{\tbigsqcup}
1471 \fdsy@DeclareOperator{\bigsqcapdot}{\dbigsqcapdot}{\tbigsqcapdot}
1472 \fdsy@DeclareOperator{\bigsqcupdot}{\dbigsqcupdot}{\tbigsqcupdot}
1473 \fdsy@DeclareOperator{\bigsqcapplus}{\dbigsqcapplus}{\tbigsqcapplus}

```

```

1474 \fdsy@DeclareOperator{\bigscupplus}{\dbigscupplus}{\tbigscupplus}
1475 \fdsy@DeclareOperator{\bigoplus}{\dbigoplus}{\tbigoplus}
1476 \fdsy@DeclareOperator{\bigotimes}{\dbigotimes}{\tbigotimes}
1477 \fdsy@DeclareOperator{\bigodot}{\dbigodot}{\tbigodot}
1478 \fdsy@DeclareOperator{\bigooast}{\dbigoast}{\tbigooast}
1479 \fdsy@DeclareOperator{\sum}{\dsum}{\tsum}
1480 \fdsy@DeclareOperator{\osum}{\dosum}{\tosum}
1481 \fdsy@DeclareOperator{\prod}{\dprod}{\tprod}
1482 \fdsy@DeclareOperator{\coprod}{\dcoprod}{\tcoprod}
1483 \fdsy@DeclareIntegral{\iint}{\diint}{\tiint}
1484 \fdsy@DeclareIntegral{\iiint}{\diiint}{\tiiint}
1485 \fdsy@DeclareIntegral{\iiiiint}{\diiiiint}{\tiiiint}
1486 \fdsy@DeclareIntegral{\idotsint}{\didotsint}{\tidotsint}
1487 \fdsy@DeclareIntegral{\dotsint}{\ddotsint}{\tdotsint}
1488 \fdsy@DeclareIntegral{\landupint}{\dlandupint}{\tlandupint}
1489 \fdsy@DeclareIntegral{\intclockwise}{\dintclockwise}{\tintclockwise}
1490 \fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1491 \fdsy@DeclareIntegral{\awint}{\dawint}{\tawint}
1492 \fdsy@DeclareIntegral{\intctrlockwise}{\dintctrlockwise}{\tintctrlockwise}
1493 \fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1494 \fdsy@DeclareIntegral{\intbar}{\dintbar}{\tintbar}
1495 \fdsy@DeclareIntegral{\intBar}{\dintBar}{\tintBar}
1496 \fdsy@DeclareIntegral{\fint}{\dfint}{\tfint}
1497 \fdsy@DeclareIntegral{\oiint}{\doiint}{\toiint}
1498 \fdsy@DeclareIntegral{\oiint}{\doiint}{\toiint}
1499 \fdsy@DeclareIntegral{\rcircclerightint}{\drcircclerightint}{\trcircclerightint}
1500 \fdsy@DeclareIntegral{\ointctrlockwise}{\dointctrlockwise}{\tointctrlockwise}
1501 \fdsy@DeclareIntegral{\lcircclerightint}{\dlcircclerightint}{\tlcircclerightint}
1502 \fdsy@DeclareIntegral{\varointclockwise}{\dvarointclockwise}{\tvarointclockwise}
1503 \fdsy@DeclareIntegral{\rcircleleftint}{\drcircleleftint}{\trcircleleftint}
1504 \fdsy@DeclareIntegral{\varointctrlockwise}{\dvarointctrlockwise}{\tvarointctrlockwise}
1505 \fdsy@DeclareIntegral{\lcircleleftint}{\dlcircleleftint}{\tlcircleleftint}
1506 \fdsy@DeclareIntegral{\ointclockwise}{\dointclockwise}{\tointclockwise}
1507 \fdsy@DeclareIntegral{\sumint}{\dsumint}{\tsumint}
1508
1509 \def\intkern@{\mkern-8.5mu\mathchoice{\mkern-1mu}{}}{}{}{}
1510 \def\intdots@{\mkern-6mu%
1511   \mathchoice{\@cdots}%
1512   {{\cdotp}\mkern0.5mu{\cdotp}\mkern0.5mu{\cdotp}}%
1513   {{\cdotp}{\cdotp}{\cdotp}}%
1514   {{\cdotp}{\cdotp}{\cdotp}}%
1515   \mkern-6mu}

```

Math accents.

```

1516 \DeclareMathAccent{\widehat}{\mathord}{largesymbols}{72}
1517 \DeclareMathAccent{\widetilde}{\mathord}{largesymbols}{78}

```

```

1518 \DeclareMathAccent{\wideparen}{\mathord}{largesymbols}{ "7E}
1519 \DeclareMathAccent{\vec}{\mathord}{largesymbols}{ "84}
1520 \DeclareMathAccent{\middlebar}{\mathord}{largesymbols}{ "85}
1521 \DeclareMathAccent{\middleslash}{\mathord}{largesymbols}{ "86}
1522 \DeclareMathAccent{\strokethrough}{\mathord}{largesymbols}{ "87}

```

#### FdSymbolF: delimiters

```

1523 \let\lfloor\undefined
1524 \let\rfloor\undefined
1525 \let\lceil\undefined
1526 \let\rceil\undefined
1527 \let\langle\undefined
1528 \let\rangle\undefined
1529 \iffdsy@largedelims
1530 \fdsy@DeclareOpen{(){delimiters}{ "01}
1531 \fdsy@DeclareClose{()){delimiters}{ "07}
1532 \fdsy@DeclareOpen{\lparen}{delimiters}{ "01}
1533 \fdsy@DeclareClose{\rparen}{delimiters}{ "07}
1534 \fdsy@DeclareOpen{[]}{delimiters}{ "13}
1535 \fdsy@DeclareClose{[]}{delimiters}{ "19}
1536 \fdsy@DeclareOpen{\lbrack}{delimiters}{ "13}
1537 \fdsy@DeclareClose{\rbrack}{delimiters}{ "19}
1538 \fdsy@DeclareOpen{\lfloor}{delimiters}{ "1F}
1539 \fdsy@DeclareClose{\rfloor}{delimiters}{ "25}
1540 \fdsy@DeclareOpen{\lceil}{delimiters}{ "2B}
1541 \fdsy@DeclareClose{\rceil}{delimiters}{ "31}
1542 \fdsy@DeclareOpen{\ulcorner}{delimiters}{ "37}
1543 \fdsy@DeclareClose{\urcorner}{delimiters}{ "3D}
1544 \fdsy@DeclareOpen{\llcorner}{delimiters}{ "43}
1545 \fdsy@DeclareClose{\lrcorner}{delimiters}{ "49}
1546 \fdsy@DeclareOpen{\ulcorner}{delimiters}{ "4F}
1547 \fdsy@DeclareClose{\ulrcorner}{delimiters}{ "55}
1548 \fdsy@DeclareOpen{\lsem}{delimiters}{ "61}
1549 \fdsy@DeclareClose{\rsem}{delimiters}{ "67}
1550 \fdsy@DeclareOpen{\lBrack}{delimiters}{ "61}
1551 \fdsy@DeclareClose{\rBrack}{delimiters}{ "67}
1552 \fdsy@DeclareOpen{\lbrace}{delimiters}{ "73}
1553 \fdsy@DeclareClose{\rbrace}{delimiters}{ "79}
1554 \fdsy@DeclareOpen{<}{delimiters}{ "86}
1555 \fdsy@DeclareClose{>}{delimiters}{ "8C}
1556 \fdsy@DeclareOpen{\langle}{delimiters}{ "86}
1557 \fdsy@DeclareClose{\rangle}{delimiters}{ "8C}
1558 \fdsy@DeclareOpen{\lAngle}{delimiters}{ "92}
1559 \fdsy@DeclareClose{\rAngle}{delimiters}{ "98}
1560 \fdsy@DeclareOpen{\langedot}{delimiters}{ "9E}
1561 \fdsy@DeclareClose{\rangedot}{delimiters}{ "A4}

```

```

1562 \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{AA}
1563 \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{AA}
1564 \DeclareMathSymbol{\divslash}{\mathbin}{delimiters}{AA}
1565 \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{B0}
1566 \expandafter\DeclareMathDelimiter\@backslashchar%
1567   {\mathord}{delimiters}{B0}{delimiters}{B0}
1568 \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{B0}
1569 \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{B7}
1570 \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{B7}
1571 \fdsy@DeclareOpen{\lvert}{delimiters}{B7}
1572 \fdsy@DeclareClose{\rvert}{delimiters}{B7}
1573 \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{B7}
1574 \DeclareMathSymbol{\nmid}{\mathrel}{delimiters}{BA}
1575 \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{BE}
1576 \fdsy@DeclareOpen{\lVert}{delimiters}{BE}
1577 \fdsy@DeclareClose{\rVert}{delimiters}{BE}
1578 \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{BE}
1579 \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{C1}
1580 \fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{C4}
1581 \fdsy@DeclareOpen{\lVvert}{delimiters}{C4}
1582 \fdsy@DeclareClose{\rVvert}{delimiters}{C4}
1583 \else
1584 \fdsy@DeclareOpen{()}{delimiters}{00}
1585 \fdsy@DeclareClose{}{delimiters}{06}
1586 \fdsy@DeclareOpen{\lparen}{delimiters}{00}
1587 \fdsy@DeclareClose{\rparen}{delimiters}{06}
1588 \fdsy@DeclareOpen{[]}{delimiters}{12}
1589 \fdsy@DeclareClose{[]}{}{delimiters}{18}
1590 \fdsy@DeclareOpen{\lbrack}{delimiters}{12}
1591 \fdsy@DeclareClose{\rbrack}{delimiters}{18}
1592 \fdsy@DeclareOpen{\lfloor}{delimiters}{1E}
1593 \fdsy@DeclareClose{\rfloor}{delimiters}{24}
1594 \fdsy@DeclareOpen{\lceil}{delimiters}{2A}
1595 \fdsy@DeclareClose{\rceil}{delimiters}{30}
1596 \fdsy@DeclareOpen{\ulcorner}{delimiters}{36}
1597 \fdsy@DeclareClose{\urcorner}{delimiters}{3C}
1598 \fdsy@DeclareOpen{\llcorner}{delimiters}{42}
1599 \fdsy@DeclareClose{\lrcorner}{delimiters}{48}
1600 \fdsy@DeclareOpen{\ulcorner}{delimiters}{4E}
1601 \fdsy@DeclareClose{\ulcorner}{delimiters}{54}
1602 \fdsy@DeclareOpen{\lsem}{delimiters}{60}
1603 \fdsy@DeclareClose{\rsem}{delimiters}{66}
1604 \fdsy@DeclareOpen{\lBrack}{delimiters}{60}
1605 \fdsy@DeclareClose{\rBrack}{delimiters}{66}
1606 \fdsy@DeclareOpen{\lbrace}{delimiters}{72}

```

```

1607 \fdsy@DeclareClose{\rbrace}{delimiters}{78}
1608 \fdsy@DeclareOpen{<}{delimiters}{85}
1609 \fdsy@DeclareClose{>}{delimiters}{8B}
1610 \fdsy@DeclareOpen{\langle}{delimiters}{85}
1611 \fdsy@DeclareClose{\rangle}{delimiters}{8B}
1612 \fdsy@DeclareOpen{\lAngle}{delimiters}{91}
1613 \fdsy@DeclareClose{\rAngle}{delimiters}{97}
1614 \fdsy@DeclareOpen{\langedot}{delimiters}{9D}
1615 \fdsy@DeclareClose{\rangedot}{delimiters}{A3}
1616 \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{A9}
1617 \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{A9}
1618 \DeclareMathSymbol{\divslash}{\mathbin}{delimiters}{A9}
1619 \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{AF}
1620 \expandafter\DeclareMathDelimiter\@backslashchar%
1621   {\mathord}{delimiters}{AF}{delimiters}{AF}
1622 \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{AF}
1623 \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{B6}
1624 \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{B6}
1625 \fdsy@DeclareOpen{\lvert}{delimiters}{B6}
1626 \fdsy@DeclareClose{\rvert}{delimiters}{B6}
1627 \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{B6}
1628 \DeclareMathSymbol{\nmid}{\mathrel}{delimiters}{B9}
1629 \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{BD}
1630 \fdsy@DeclareOpen{\lVert}{delimiters}{BD}
1631 \fdsy@DeclareClose{\rVert}{delimiters}{BD}
1632 \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{BD}
1633 \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{C0}
1634 \fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{C3}
1635 \fdsy@DeclareOpen{\lVvert}{delimiters}{C3}
1636 \fdsy@DeclareClose{\rVvert}{delimiters}{C3}
1637 \fi
1638 \let\|\Vert
1639 \let\divides\mid
1640 \let\ndivides\nmid
1641 \DeclareMathSymbol{\shortmid}{\mathrel}{delimiters}{B5}
1642 \DeclareMathSymbol{\nshortmid}{\mathrel}{delimiters}{B8}
1643 \DeclareMathSymbol{\shortparallel}{\mathrel}{delimiters}{BC}
1644 \DeclareMathSymbol{\nshortparallel}{\mathrel}{delimiters}{BF}
1645 \fdsy@DeclareDelimiter{\arrowvert}{\mathord}{delimiters}{BB}
1646 \fdsy@DeclareDelimiter{\Arrowvert}{\mathord}{delimiters}{C2}
1647 \fdsy@DeclareClose{\lgrou}{delimiters}{7E}
1648 \fdsy@DeclareOpen{\rgrou}{delimiters}{7F}
1649 \fdsy@DeclareClose{\rmoustache}{delimiters}{80}
1650 \fdsy@DeclareOpen{\lmoustache}{delimiters}{81}
1651 \fdsy@DeclareDelimiter{\bracevert}{\mathord}{delimiters}{84}

```

```

1652 \let\uparrow\undefined
1653 \let\downarrow\undefined
1654 \let\updownarrow\undefined
1655 \let\Uparrow\undefined
1656 \let\Downarrow\undefined
1657 \let\Updownarrow\undefined
1658 \DeclareMathDelimiter{\uparrow}{\mathrel}{arrows}{"01}{delimiters}{"C6}
1659 \DeclareMathDelimiter{\downarrow}{\mathrel}{arrows}{"03}{delimiters}{"C7}
1660 \DeclareMathDelimiter{\updownarrow}{\mathrel}{arrows}{"11}{delimiters}{"C8}
1661 \DeclareMathDelimiter{\Uparrow}{\mathrel}{arrows}{"09}{delimiters}{"C9}
1662 \DeclareMathDelimiter{\Downarrow}{\mathrel}{arrows}{"0B}{delimiters}{"CA}
1663 \DeclareMathDelimiter{\Updownarrow}{\mathrel}{arrows}{"15}{delimiters}{"CB}

```

Horizontal braces.

```

1664 \DeclareMathSymbol{\bracedl}{\mathord}{delimiters}{"CC}
1665 \DeclareMathSymbol{\bracerl}{\mathord}{delimiters}{"CD}
1666 \DeclareMathSymbol{\bracerd}{\mathord}{delimiters}{"CE}
1667 \DeclareMathSymbol{\braceru}{\mathord}{delimiters}{"CF}
1668 \DeclareMathSymbol{\bracemd}{\mathord}{delimiters}{"D0}
1669 \DeclareMathSymbol{\bracemu}{\mathord}{delimiters}{"D1}
1670 \DeclareMathSymbol{\bracemid}{\mathord}{delimiters}{"D2}
1671
1672 \def\bracefill@#1#2#3#4#5{$\m@th#5#1\leaders\hbox{$\#4$}\hfill#2\leaders\hbox{$\#4$}\hfill#3$}
1673 \def\downbracefill@{\bracefill@\bracedl\bracemd\bracerd\bracemid}
1674 \def\upbracefill@{\bracefill@\bracerl\bracemu\braceru\bracemid}
1675 \def\downgroupfill@{\bracefill@\bracedl}{\bracerd\bracemid}
1676 \def\upgroupfill@{\bracefill@\bracerl}{\braceru\bracemid}
1677 \def\linesegmentfill@{\arrowfill@\leftfootline\relbar\rightfootline}
1678 \def\leftharpoonfill@{\arrowfill@\leftharpoondown\relbar\relbar}
1679 \def\rightharpoonfill@{\arrowfill@\relbar\relbar\rightharpoonup}
1680
1681 \DeclareRobustCommand{\overbrace}[1]{\mathop{\mathpalette{\overarrow@downbracefill@}{#1}}\limits}
1682 \DeclareRobustCommand{\underbrace}[1]{\mathop{\mathpalette{\underarrow@upbracefill@}{#1}}\limits}
1683 \DeclareRobustCommand{\overgroup}{\mathpalette{\overarrow@downgroupfill@}}
1684 \DeclareRobustCommand{\undergroup}{\mathpalette{\underarrow@upgroupfill@}}
1685 \DeclareRobustCommand{\overlinesegment}{\mathpalette{\overarrow@linesegmentfill@}}
1686 \DeclareRobustCommand{\overleftharpoon}{\mathpalette{\overarrow@leftharpoonfill@}}
1687 \DeclareRobustCommand{\overrightharpoon}{\mathpalette{\overarrow@rightharpoonfill@}}
1688 \DeclareRobustCommand{\underlinesegment}{\mathpalette{\underarrow@linesegmentfill@}}

```

Radical symbols.

```

1689 \iffdsy@largedelims
1690 \DeclareMathRadical{\sqrtsign}{delimiters}{"D4}{delimiters}{"D4}
1691 \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D4}
1692 \else
1693 \DeclareMathRadical{\sqrtsign}{delimiters}{"D3}{delimiters}{"D3}
1694 \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D3}

```



1695 \fi

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

```
1696 \def\r@t#1#2{\setbox\z@\hbox{$\m@th#1\sqrt{\#2}$}%
1697 \dimen@ \ht\z@ \advance\dimen@-\dp\z@
1698 \mkern5mu\raise.6\dimen@ \copy\rootbox \mkern-8mu\box\z@}
```

Mathchars.

```
1699 \DeclareMathSymbol{+}{\mathbin}{symbols}{11}
1700 \DeclareMathSymbol{-}{\mathbin}{symbols}{0E}
1701 \DeclareMathSymbol{*}{\mathbin}{symbols}{93}
1702 \DeclareMathSymbol{:}{\mathrel}{symbols}{02}
1703 \DeclareMathSymbol{=}{\mathrel}{relations}{00}
1704 \DeclareMathSymbol{<}{\mathrel}{relations}{22}
1705 \DeclareMathSymbol{>}{\mathrel}{relations}{23}
1706 \iffdsy@largedelims
1707 \DeclareMathSymbol{|}{\mathord}{delimiters}{B6}
1708 \DeclareMathSymbol{(}{\mathopen}{delimiters}{01}
1709 \DeclareMathSymbol{)}{\mathclose}{delimiters}{07}
1710 \DeclareMathSymbol{[}{\mathopen}{delimiters}{13}
1711 \DeclareMathSymbol{]}{\mathclose}{delimiters}{19}
1712 \DeclareMathSymbol{/}{\mathord}{delimiters}{AA}
1713 \else
1714 \DeclareMathSymbol{|}{\mathord}{delimiters}{B5}
1715 \DeclareMathSymbol{(}{\mathopen}{delimiters}{00}
1716 \DeclareMathSymbol{)}{\mathclose}{delimiters}{06}
1717 \DeclareMathSymbol{[}{\mathopen}{delimiters}{12}
1718 \DeclareMathSymbol{]}{\mathclose}{delimiters}{18}
1719 \DeclareMathSymbol{/}{\mathord}{delimiters}{A9}
1720 \fi
```

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

```
1721 \def\c@ncel#1#2{\m@th\oalign{$\hfil#1/\hfil$\cr\c@ncel#1#2$}}
1722 \def\not#1{\mathrel{\m@th\mathpalette\c@ncel{#1}}}
1723 \end{style}
```