FdSymbol: A Math Symbol Font

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Contents

1 Introduction

FdSymbol is a font of mathematical symbols designed as a companion to Typotheque's Fedra family[1], but it might also fit well to other contemporary typefaces. To use this font in a LaTeX document, add the command

    \usepackage[⟨options⟩]{fdsymbol}

to the preamble of your document. This redefines most of the standard mathematical symbols and makes available many new ones (see Section 5). For the available options see Section 3.

Acknowledgements

The FdSymbol font is derived from MnSymbol[2], 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 Options

All package options are set using a ⟨key⟩=⟨value⟩ syntax. Boolean options accept true and false as values, and setting a Boolean key without a value is equivalent to setting it to true. Table 1 lists all option keys of the fdsymbol package with their possible values; values that are marked with an asterisk correspond to the default behaviour of the package.

4 Font selection

4.1 Weights

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

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[1] http://www.typotheque.com/fonts
[2] http://www.ctan.org/pkg/mnsymbol/

Key	Values
normalweight	Book*, Regular, auto
boldweight	Medium*, Bold, auto
scale	⟨*factor*⟩
largedelims	true, false*
opstyle	serif*, sans

Table 1: Summary of options

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).

4.2   Size

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.

4.3   Stylistic variants

In order to use FdSymbol with sans-serif text fonts, there are sans-serif variants of glyphs that contain a product or summation sign. These can be accessed by the commands `\varprod`, `\varcoprod`, `\varsum`, etc. To access these glyphs using the standard commands `\prod`, `\coprod`, `\sum`, etc., use the option `opstyle=sans`. If this option is active, the serif variants of these glyphs can be accessed by the `\var…` commands instead.

5 Symbols

The fdsymbol package provides the following symbols.

5.1 Ordinary symbols

⋯ \hdots

⋮ \vdots

⋰ \udots, \adots

⋱ \ddots

∶∶ \righttherefore

∴ \uptherefore, \therefore

∵ \lefttherefore

∵ \downtherefore, \because

∷ \squaredots

¬ \neg, \lnot

⌐ \backneg, \invnot, \invneg

⌐ \turnedneg, \turnednot

∟ \turnedbackneg

△ \largetriangleup

▽ \largetriangledown

∅ \emptyset, \diameter,
    \varnothing

⊘ \revemptyset

○ \largecircle, \lgwhtcircle

● \largeblackcircle

□ \largesquare, \lgwhtsquare

■ \largeblacksquare,
    \lgblksquare

◊ \smalllozenge, \smwhtlozenge

◆ \smallblacklozenge,
    \smblklozenge

◊ \medlozenge, \lozenge,
    \mdlgwhtlozenge,
    \mdwhtlozenge

◆ \medblacklozenge,
    \blacklozenge,
    \mdlgblklozenge,
    \mdblklozenge

⬦ \lozengeminus

☆ \largewhitestar

★ \largeblackstar, \bigstar

∞ \infty

∠ \angle

⦟ \revangle

∡ \measuredangle

⦛ \revmeasuredangle,
    \measuredangleleft

⊲ \sphericalangle

∀ \sphericalangleup

⊳ \sphericalangleleft,
    \revsphericalangle, \gtlpar

⋀ \sphericalangledown

∟ \rightangle

⊾ \measuredrightangle

⊾ \rightanglesquare,
    \rightanglesqr

⊿ \measuredrightangledot,
    \rightanglemdot

′ \prime

‵ \backprime

✓ \checkmark

↯ \lightning, \downzigzagarrow

♢ \diamondsuit

♦ \vardiamondsuit

♡ \heartsuit

♥ \varheartsuit

♠ \spadesuit

♣ \clubsuit

✠ \maltese

✡ \starofdavid

▽ \sector

∀ \forall

∃ \exists

∄ \nexists

⊣ \Finv

∽	\Game	℘	\wp
∁	\complement	⊤	\top
♭	\flat	⊥	\bot
♮	\natural	/	/, \mathslash
♯	\sharp	\	\backslash
ℵ	\aleph	|	|, \vert
ℶ	\beth	‖	\Vert
ℷ	\gimel	⦀	\Vvert
ℸ	\daleth		

5.2   Binary operators

·	\cdot	⨳	\utimes, \ttimes
.	\centerdot	⋉	\ltimes
··	\hdotdot	⋈	\lrtimes
:	\vdotdot	⧖	\upbowtie, \hourglass
··	\udotdot	⊱	\rightY
··	\ddotdot	⅄	\upY
−	-, \minus	⊰	\leftY
╱	\medslash, \smalldivslash	Y	\downY
╲	\medbackslash, \smallsetminus	∧	\wedge, \land
+	+, \plus	∨	\vee, \lor
×	\times	⩓	\wedgedot
∸	\dotminus	⩔	\veedot
⨩	\minusdot	⋀	\doublewedge, \wedgeonwedge
÷	\div	⋁	\doublevee, \veeonwee
∺	\minusfdots	⋏	\curlywedge
⩦	\minusrdots	⋎	\curlyvee
±	\pm	⊼	\barwedge
∓	\mp	⊻	\veebar
∔	\dotplus	⩟	\doublebarwedge
⨥	\plusdot	⩞	\veedoublebar
⨰	\dottimes	∪	\cup
⨱	\timesbar	∩	\cap
⨶	\divideontimes	⋓	\doublecup, \Cup
⨼	\intprod	⋒	\doublecap, \Cap
⨽	\intprodr	⊍	\cupdot
⋋	\leftthreetimes	⩂	\capdot
⋌	\rightthreetimes	⊎	\cupplus, \uplus
⋇	\dtimes, \btimes	⩄	\capplus
⋈	\rtimes	⊔	\sqcup

⊓	\sqcap	●	\medblackcircle, \mdlgblkcircle, \mdblkcircle
⊔	\doublesqcup, \Sqcup	⊖	\ominus
⊓	\doublesqcap, \Sqcap	⦶	\overt, \circledvert
⊔	\sqcupdot	⊘	\oslash
⊓	\sqcapdot	⦸	\obackslash, \obslash
⊔	\sqcupplus	⊕	\oplus
⊓	\sqcapplus	⊗	\otimes
⌟	\pullback	⊙	\odot
⌜	\pushout	◎	\ocirc, \circledcirc
▷	\smalltriangleright	⊛	\oast, \circledast
△	\smalltriangleup	⊝	\odash, \circleddash
◁	\smalltriangleleft	⊜	\oequal, \circledequal
▽	\smalltriangledown	○	\bigcirc
▶	\smallblacktriangleright	▫	\smallsquare, \smwhtsquare
▲	\smallblacktriangleup	▪	\smallblacksquare, \smblksquare
◀	\smallblacktriangleleft	□	\medsquare, \square, \Box, \mdlgwhtsquare, \mdwhtsquare
▼	\smallblacktriangledown	■	\medblacksquare, \mdlgblksquare, \mdblksquare
▷	\medtriangleright, \triangleright	⊟	\boxminus
△	\medtriangleup, \triangle, \vartriangle	⊟	\boxvert, \boxbar
◁	\medtriangleleft, \triangleleft	⧄	\boxslash, \boxdiag
▽	\medtriangledown, \triangledown	⧅	\boxbackslash, \boxbslash
▶	\medblacktriangleright, \blacktriangleright	⊞	\boxplus
▲	\medblacktriangleup, \blacktriangle	⊠	\boxtimes
◀	\medblacktriangleleft, \blacktriangleleft	⊡	\boxdot
▼	\medblacktriangledown, \blacktriangledown	⧈	\boxbox
△	\bigtriangleup	◇	\smalldiamond, \diamond, \smwhtdiamond
▽	\bigtriangledown	◆	\smallblackdiamond, \blackdiamond, \smblkdiamond
∘	\smallcircle, \circ, \smwhtcircle	◇	\meddiamond, \Diamond, \mdlgwhtdiamond, \mdwhtdiamond
•	\smallblackcircle, \bullet, \smblkcircle	◆	\medblackdiamond, \mdlgblkdiamond, \mdblkdiamond
○	\medcircle, \mdlgwhtcircle, \mdwhtcircle	⬦	\diamondminus
		⬧	\diamondvert

⟡	\diamondslash	∗	*, \ast
⟐	\diamondbackslash, \diamondbslash	⊺	\intercal
		≀	\wreath, \wr
⟠	\diamondplus	⨿	\amalg
⟠	\diamondtimes	⅄	\varamalg
⟐	\diamonddot, \diamondcdot	◁	\lhd
⟐	\diamonddiamond	▷	\rhd
☆	\smallwhitestar, \smwhitestar	⊴	\unlhd
⋆	\smallblackstar, \star	⊵	\unrhd
☆	\medwhitestar	⁄	\divslash
★	\medblackstar, \medstar	\	\setminus

5.3 Relations

=	=, \equal, \Relbar	≕	\smileeq
≡	\equiv	≘	\frowneq, \arceq
∼	\sim	≖	\eqcirc
∽	\backsim	≗	\circeq
≈	\approx	≙	\wedgeq, \hateq
≋	\triplesim, \approxident	≚	\veeeq
≃	\simeq	≛	\stareq
⋍	\backsimeq	≜	\triangleeq, \triangleq
≂	\eqsim	∈	\in
≅	\cong	∋	\owns, \ni
≌	\backcong	<	<, \less
≐	\dotcong	>	>, \gtr
≊	\approxeq	≤	\leq, \le
≏	\bumpeq	≥	\geq, \ge
≎	\bumpeqq	⩽	\leqslant
≏	\Bumpeq	⩾	\geqslant
≐	\doteq	≦	\leqq
≑	\eqdot	≧	\geqq
≑	\Doteq	≲	\lesssim
≒	\fallingdotseq	≳	\gtrsim
≓	\risingdotseq	⪅	\lessapprox
≔	\coloneq, \coloneqq	⪆	\gtrapprox
≕	\eqcolon, \eqqcolon	≶	\lessgtr
⌣	\smile, \smallsmile	≷	\gtrless
⌢	\frown, \smallfrown	⋚	\lesseqgtr
≍	\smilefrown, \asymp	⋛	\gtreqless
≎	\frownsmile, \closure	⪋	\lesseqqgtr

⋛	\gtreqqless	⪷	\precapprox
⋚	\lesseqslantgtr, \lesq	⪸	\succapprox
⋛	\gtreqslantless, \gesl	⋖	\lessdot
≪	\ll	⋗	\gtrdot
≫	\gg	⋜	\leqdot
⋘	\lll, \llless	⋝	\geqdot
⋙	\ggg, \gggtr	⪕	\leqslantdot, \lesdot
◁	\lessclosed, \vartriangleleft	⪖	\geqslantdot, \gesdot
▷	\gtrclosed, \vartriangleright	⋜	\eqslantless
◁	\leqclosed, \trianglelefteq	⋝	\eqslantgtr
▷	\geqclosed, \trianglerighteq	⋞	\curlyeqprec
◁	\lesscc, \ltcc	⋟	\curlyeqsucc
▷	\gtrcc, \gtcc	∼	\thicksim
⪬	\leqslcc, \lescc	≈	\thickapprox
⪭	\geqslcc, \gescc	→	\rightarrow, \to
⊏	\sqsubset	↑	\uparrow
⊐	\sqsupset	←	\leftarrow, \gets
⊑	\sqsubseteq	↓	\downarrow
⊒	\sqsupseteq	↗	\nearrow
⊑	\sqsubseteqq	↖	\nwarrow
⊒	\sqsupseteqq	↙	\swarrow
⧢	\Sqsubset	↘	\searrow
⧣	\Sqsupset	⇒	\Rightarrow
⊂	\subset	⇑	\Uparrow
⊃	\supset	⇐	\Leftarrow
⊆	\subseteq	⇓	\Downarrow
⊇	\supseteq	⇗	\Nearrow
⊆	\subseteqq	⇖	\Nwarrow
⊇	\supseteqq	⇙	\Swarrow
⋐	\Subset	⇘	\Searrow
⋑	\Supset	↔	\leftrightarrow
≺	\prec	↕	\updownarrow
≻	\succ	⤢	\neswarrow
≼	\preceq	⤡	\nwsearrow
≽	\succeq	⇔	\Leftrightarrow
≼	\preccurlyeq	⇕	\Updownarrow
≽	\succcurlyeq	⤢	\Neswarrow
⪯	\preceqq	⤡	\Nwsearrow
⪰	\succeqq	↠	\twoheadrightarrow
≾	\precsim	↟	\twoheaduparrow
≿	\succsim	↞	\twoheadleftarrow

Symbol	Command
↡	\twoheaddownarrow
↗	\twoheadnearrow
↖	\twoheadnwarrow
↙	\twoheadswarrow
↘	\twoheadsearrow
↣	\rightarrowtail
↥	\uparrowtail
↢	\leftarrowtail
↧	\downarrowtail
↗	\nearrowtail
↖	\nwarrowtail
↙	\swarrowtail
↘	\searrowtail
↦	\rightmapsto, \mapsto
↥	\upmapsto, \mapsup
↤	\leftmapsto, \mapsfrom
↧	\downmapsto, \mapsdown
⇨	\Rightmapsto, \Mapsto
⇧	\Upmapsto, \Mapsup
⇦	\Leftmapsto, \Mapsfrom
⇩	\Downmapsto, \Mapsdown
↪	\hookrightarrow
↰	\hookuparrow
↩	\varhookleftarrow
↲	\varhookdownarrow
↗	\varhooknearrow
↖	\hooknwarrow, \hknwarrow
↙	\varhookswarrow
↘	\hooksearrow, \hksearrow
↪	\varhookrightarrow
↱	\varhookuparrow
↩	\hookleftarrow
↳	\hookdownarrow
↗	\hooknearrow, \hknearrow
↖	\varhooknwarrow
↙	\hookswarrow, \hkswarrow
↘	\varhooksearrow
⇀	\rightharpoonup
↿	\upharpoonleft
↽	\leftharpoondown
⇂	\downharpoonright
↗	\neharpoonnw
↖	\nwharpoonsw
↙	\swharpoonse
↘	\seharpoonne
⇁	\rightharpoondown
↾	\upharpoonright, \restriction
↼	\leftharpoonup
⇃	\downharpoonleft
↗	\neharpoonse
↖	\nwharpoonne
↙	\swharpoonnw
↘	\seharpoonsw
⇋	\leftrightharpoonupdown
↨	\updownharpoonleftright
↗	\neswharpoonnwse
↖	\nwseharpoonnesw
⇌	\leftrightharpoondownup
↨	\updownharpoonrightleft
↗	\neswharpoonsenw
↖	\nwseharpoonswne
⇌	\rightleftharpoons
⇅	\updownharpoons, \updownharpoonsleftright
⤧	\neswharpoons
⤩	\senwharpoons
⇋	\leftrightharpoons
⇵	\downupharpoons, \downupharpoonsleftright
⤪	\swneharpoons
⤨	\nwseharpoons
⇢	\rightbkarrow, \dashrightarrow, \dasharrow
↑	\upbkarrow
⇠	\leftbkarrow, \dashleftarrow
↓	\downbkarrow
↗	\nebkarrow
↖	\nwbkarrow
↙	\swbkarrow
↘	\sebkarrow
⊸	\rightspoon, \multimap
⦙	\upspoon, \cirmid

⊸	\leftspoon, \multimapinv	↯	\vardownwavearrow
↓	\downspoon, \midcir	↔	\leftrightwavearrow, \leftrightsquigarrow
⊶	\rightblackspoon	↕	\updownwavearrow
↑	\upblackspoon	↭	\varleftrightwavearrow
⊷	\leftblackspoon	↕	\varupdownwavearrow
↓	\downblackspoon	⤳	\cwoverarcarrow, \curvearrowright
∘─∘	\leftrightspoon, \dualmap	↻	\cwleftarcarrow
●─●	\leftrightblackspoon	↝	\cwunderarcarrow
●─∘	\blackwhitespoon, \imageof	↷	\cwrightarcarrow
∘─●	\whiteblackspoon, \origof	↗	\cwnwarcarrow, \rightupcurvedarrow
� ⊱	\rightpitchfork	↖	\cwswarcarrow, \upleftcurvedarrow
⋔	\uppitchfork, \pitchfork	↵	\cwsearcarrow, \leftdowncurvedarrow
⫐	\leftpitchfork	↘	\cwnearcarrow, \downrightcurvedarrow
Ψ	\downpitchfork	↪	\acwunderarcarrow
⇉	\rightrightarrows	↪	\acwrightarcarrow
⇈	\upuparrows	↩	\acwoverarcarrow, \curvearrowleft
⇇	\leftleftarrows	↺	\acwleftarcarrow
⇊	\downdownarrows	↱	\acwsearcarrow, \uprightcurvearrow
⤢	\nenearrows	↰	\acwnearcarrow, \leftupcurvedarrow
⤡	\nwnwarrows	↲	\acwnwarcarrow, \downleftcurvedarrow
⤥	\swswarrows	↳	\acwswarcarrow, \rightdowncurvedarrow
⤦	\sesearrows	↬	\bdoverarcarrow
⇄	\rightleftarrows	↺	\bdleftarcarrow
⇅	\updownarrows	↫	\bdunderarcarrow
⤧	\neswarrows	↻	\bdrightarcarrow
⤪	\nwsearrows	↝	\bdnwarcarrow
⇆	\leftrightarrows	↜	\bdswarcarrow
⇵	\downuparrows	↝	\bdsearcarrow
⤨	\swnearrows	↜	\bdnearcarrow
⤩	\senwarrows	↤	\leftfootline
↝	\rightwavearrow, \leadsto, \rightsquigarrow, \rightcurvedarrow		
↯	\varupwavearrow		
↜	\varleftwavearrow		
↯	\downwavearrow		
↝	\varrightwavearrow		
↟	\upwavearrow		
↜	\leftwavearrow, \leftsquigarrow, \leftcurvedarrow		

⊸ \rightfootline

⟲ \acwcirclearrowup

↺ \acwcirclearrowleft,
\circlearrowleft,
\acwopencirclearrow

⟳ \acwcirclearrowdown,
\acwgapcirclearrow

⟲ \acwcirclearrowright

⟳ \cwcirclearrowdown,
\cwgapcirclearrow

↻ \cwcirclearrowright,
\circlearrowright,
\cwopencirclearrow

⟳ \cwcirclearrowup

⟳ \cwcirclearrowleft

⟹ \Rrightarrow

⟰ \Uuparrow

⟸ \Lleftarrow

⟱ \Ddownarrow

⟶ \longrightarrow

⟵ \longleftarrow

⟹ \Longrightarrow

⟸ \Longleftarrow

⟷ \longleftrightarrow

⟺ \Longleftrightarrow

⟼ \longmapsto

⟻ \longmapsfrom

⟾ \Longmapsto

⟽ \Longmapsfrom

⟿ \longrightwavearrow,
\longleadsto,
\longrightsquigarrow

⬳ \longleftwavearrow,
\longleftsquigarrow

⟝ \longleftfootline, \vlongdash

⟜ \longrightfootline, \longdashv

↰ \Lsh

↱ \Rsh

↵ \Ldsh

↳ \Rdsh

↬ \looparrowright

↫ \looparrowleft

⊢ \rightvdash, \vdash

⊥ \upvdash, \perp

⊣ \leftvdash, \dashv

⊤ \downvdash

⊢ \rightassert, \assert,
\shortrighttack

⊥ \upassert, \shortuptack

⊣ \leftassert, \shortlefttack

⊤ \downassert, \shortdowntack

⊨ \rightvDash, \vDash

⫫ \upvDash, \Vbar

⫤ \leftvDash, \Dashv

⊫ \downvDash, \barV

⊨ \rightmodels, \models

⫫ \upmodels

⫤ \leftmodels

⫪ \downmodels

⊩ \rightVdash, \Vdash

⊥ \upVdash

⊣| \leftVdash, \dashV

⊤ \downVdash

⊩ \rightAssert, \Assert

⊥ \upAssert, \vBar

⊣| \leftAssert

⊤ \downAssert, \Barv

⊪ \rightVDash, \VDash

⫫ \upVDash

⫣| \leftVDash, \DashV

⊤ \downVDash

⊪ \Vvdash

⊣|| \dashVv

⊫ \vDdash

⊫ \Ddashv

≠ \nequal, \neq, \ne

≢ \nequiv

≁ \nsim

≁ \nbacksim

≉ \napprox

≉ \ntriplesim, \napproxident

≄ \nsimeq, \nsime

≆	\nbacksimeq	≸	\nlesseqgtr
≇	\neqsim	≹	\ngtreqless
≇	\ncong	≸	\nlesseqqgtr
≇	\nbackcong	≹	\ngtreqqless
≉	\napproxeq	≸	\nlesseqslantgtr, \nlesg
≏̸	\nbumpeq	≹	\ngtreqslantless, \ngesl
≏̸	\nbumpeqq	≪̸	\nll
≎̸	\nBumpeq	≫̸	\ngg
≐̸	\ndoteq	⋘̸	\nlll
≑̸	\neqdot	⋙̸	\nggg
≑̸	\nDoteq	⋪	\nlessclosed, \ntriangleleft
≒̸	\nfallingdotseq	⋫	\ngtrclosed, \ntriangleright
≓̸	\nrisingdotseq	⋬	\nleqclosed, \ntrianglelefteq
⌣̸	\nsmile	⋭	\ngeqclosed, \ntrianglerighteq
⌢̸	\nfrown	⋖̸	\nlesscc, \nltcc
⌢̸	\nsmilefrown, \nasymp	⋗̸	\ngtrcc, \ngtcc
⌣̸	\nfrownsmile, \nclosure	⋖̸	\nleqslcc, \nlescc
⌣̸	\nsmileeq	⋗̸	\ngeqslcc, \ngescc
⌢̸	\nfrowneq, \narceq	⊏̸	\nsqsubset
≗̸	\neqcirc	⊐̸	\nsqsupset
≗̸	\ncirceq	⋢	\nsqsubseteq
≙̸	\nwedgeq, \nhateq	⋣	\nsqsupseteq
≚̸	\nveeeq	⋢	\nsqsubseteqq
≛̸	\nstareq	⋣	\nsqsupseteqq
≜̸	\ntriangleeq	⋢	\nSqsubset
∉	\nin, \notin	⋣	\nSqsupset
∌	\nowns, \nni	⊄	\nsubset
≮	\nless	⊅	\nsupset
≯	\ngtr	⊈	\nsubseteq
≰	\nleq	⊉	\nsupseteq
≱	\ngeq	⊈	\nsubseteqq
⩽̸	\nleqslant	⊉	\nsupseteqq
⩾̸	\ngeqslant	⋐̸	\nSubset
≦̸	\nleqq	⋑̸	\nSupset
≧̸	\ngeqq	⊀	\nprec
≴	\nlesssim	⊁	\nsucc
≵	\ngtrsim	⋠̸	\npreceq
⪅̸	\nlessapprox	⋡̸	\nsucceq
⪆̸	\ngtrapprox	⋠	\npreccurlyeq
≸	\nlessgtr	⋡	\nsucccurlyeq
≹	\ngtrless	⪯̸	\npreceqq

⋡	\nsucceqq	↛	\nrightarrow, \nto
⋨	\nprecsim	↑̸	\nuparrow
⋩	\nsuccsim	↚	\nleftarrow, \ngets
⋨	\nprecapprox	↓̸	\ndownarrow
⋩	\nsuccapprox	↗̸	\nnearrow
⋖	\nlessdot	↖̸	\nnwarrow
⋗	\ngtrdot	↙̸	\nswarrow
≰	\nleqdot	↘̸	\nsearrow
≱	\ngeqdot	⇏	\nRightarrow
≰	\nleqslantdot, \nlesdot	⇑̸	\nUparrow
≱	\ngeqslantdot, \ngesdot	⇍	\nLeftarrow
≰	\neqslantless	⇓̸	\nDownarrow
≱	\neqslantgtr	⇗̸	\nNearrow
⋠	\ncurlyeqprec	⇖̸	\nNwarrow
⋡	\ncurlyeqsucc	⇙̸	\nSwarrow
≆	\simneqq	⇘̸	\nSearrow
≆	\backsimneqq	↮	\nleftrightarrow
≨	\lneq	↕̸	\nupdownarrow
≩	\gneq	↗↙̸	\nneswarrow
≨	\lneqq, \lvertneqq	↖↘̸	\nnwsearrow
≩	\gneqq, \gvertneqq	⇎	\nLeftrightarrow
⋦	\lnsim	⇕̸	\nUpdownarrow
⋧	\gnsim	⇗⇙̸	\nNeswarrow
⪉	\lnapprox	⇖⇘̸	\nNwsearrow
⪊	\gnapprox	↠̸	\ntwoheadrightarrow
⊊	\sqsubsetneq	↟̸	\ntwoheaduparrow
⊋	\sqsupsetneq	↞̸	\ntwoheadleftarrow
⊊	\sqsubsetneqq	↡̸	\ntwoheaddownarrow
⊋	\sqsupsetneqq	↗↗̸	\ntwoheadnearrow
⊊	\subsetneq, \varsubsetneq	↖↖̸	\ntwoheadnwarrow
⊋	\supsetneq, \varsupsetneq	↙↙̸	\ntwoheadswarrow
⊊	\subsetneqq, \varsubsetneqq	↘↘̸	\ntwoheadsearrow
⊋	\supsetneqq, \varsupsetneqq	↣̸	\nrightarrowtail
⋨	\precneq	↑̸	\nuparrowtail
⋩	\succneq	↢̸	\nleftarrowtail
⋨	\precneqq	↓̸	\ndownarrowtail
⋩	\succneqq	↗̸	\nnearrowtail
⋨	\precnsim	↖̸	\nnwarrowtail
⋩	\succnsim	↙̸	\nswarrowtail
⪹	\precnapprox	↘̸	\nsearrowtail
⪺	\succnapprox	↦̸	\nrightmapsto, \nmapsto

↥	\nupmapsto, \nmapsup	↧	\nupdownharpoonleftright
↤	\nleftmapsto, \nmapsfrom	⤡	\nneswharpoonnwse
↧	\ndownmapsto, \nmapsdown	⤢	\nnwseharpoonnesw
⇏	\nRightmapsto, \nMapsto	↭	\nleftrightharpoondownup
⇑	\nUpmapsto, \nMapsup	↯	\nupdownharpoonrightleft
⇐	\nLeftmapsto, \nMapsfrom	⤢	\nneswharpoonsenw
⇓	\nDownmapsto, \nMapsdown	⤡	\nnwseharpoonswne
↪	\nhookrightarrow	⇌	\nrightleftharpoons
↰	\nhookuparrow	⥮	\nupdownharpoons,
↩	\nvarhookleftarrow		\nupdownharpoonsleftright
↲	\nvarhookdownarrow	⤪	\nneswharpoons
⤤	\nvarhooknearrow	⤨	\nsenwharpoons
⤦	\nhooknwarrow, \nhknwarrow	⇋	\nleftrightharpoons
⤣	\nvarhookswarrow	⥯	\ndownupharpoons,
⤥	\nhooksearrow, \nhksearrow		\ndownupharpoonsleftright
↪	\nvarhookrightarrow	⤩	\nswneharpoons
↱	\nvarhookuparrow	⤧	\nnnseharpoons
↩	\nhookleftarrow	⇀	\nrightbkarrow, \ndasharrow,
↳	\nhookdownarrow		\ndashrightarrow
⤤	\nhooknearrow, \nhknearrow	⇞	\nupbkarrow
⤦	\nvarhooknwarrow	↚	\nleftbkarrow, \ndashleftarrow
⤣	\nhookswarrow, \nhkswarrow	⇟	\ndownbkarrow
⤥	\nvarhooksearrow	⤴	\nnebkarrow
⇀	\nrightharpoonup	⤶	\nnwbkarrow
↿	\nupharpoonleft	⤵	\nswbkarrow
⇃	\nleftharpoondown	⤷	\nsebkarrow
⇂	\ndownharpoonright	⊸	\nrightspoon, \nmultimap
⤤	\nneharpoonnw	⥜	\nupspoon, \ncirmid
⤦	\nnwharpoonsw	⟜	\nleftspoon, \nmultimapinv
⤣	\nswharpoonse	⥝	\ndownspoon, \nmidcir
⤥	\nseharpoonne	⧟	\nrightblackspoon
⇁	\nrightharpoondown	⥞	\nupblackspoon
↾	\nupharpoonright,	⟜	\nleftblackspoon
	\nrestriction	⥟	\ndownblackspoon
↼	\nleftharpoonup	⧟	\nleftrightspoon, \ndualmap
⇃	\ndownharpoonleft	⧟	\nleftrightblackspoon
⤤	\nneharpoonse	⧟	\nblackwhitespoon, \nimageof
⤦	\nnwharpoonne	⧟	\nwhiteblackspoon, \norigof
⤣	\nswharpoonnw	⋔	\nrightpitchfork
⤥	\nseharpoonsw	⋔	\nuppitchfork, \npitchfork
↭	\nleftrightharpoonupdown	⋔	\nleftpitchfork

⅄ \ndownpitchfork
⇉ \nrightrightarrows
⇈ \nupuparrows
⇇ \nleftleftarrows
⇊ \ndowndownarrows
⤨ \nnenearrows
⤧ \nnwnwarrows
⤩ \nswswarrows
⤪ \nsesearrows
⇄ \nrightleftarrows
⇅ \nupdownarrows
⤮ \nneswarrows
⤭ \nnwsearrows
⇹ \nleftrightarrows
⇵ \ndownuparrows
⤲ \nswnearrows
⤱ \nsenwarrows
⇝ \nrightwavearrow, \nleadsto,
    \nrightsquigarrow,
    \nrightcurvedarrow
⇞ \nvarupwavearrow
↜ \nvarleftwavearrow
↧ \ndownwavearrow
⇝ \nvarrightwavearrow
↥ \nupwavearrow
↜ \nleftwavearrow,
    \nleftsquigarrow,
    \nleftcurvedarrow
↧ \nvardownwavearrow
↭ \nleftrightwavearrow,
    \nleftrightsquigarrow
↕ \nupdownwavearrow
↭ \nvarleftrightwavearrow
↕ \nvarupdownwavearrow
↷ \ncwoverarcarrow,
    \ncurvearrowright
↰ \ncwleftarcarrow
↶ \ncwunderarcarrow
↱ \ncwrightarcarrow
↗ \ncwnwarcarrow,
    \nrightupcurvedarrow

↘ \ncwswarcarrow,
    \nupleftcurvedarrow
↙ \ncwsearcarrow,
    \nleftdowncurvedarrow
↙ \ncwnearcarrow,
    \ndownrightcurvedarrow
↩ \nacwunderarcarrow
↯ \nacwrightarcarrow
↪ \nacwoverarcarrow,
    \ncurvearrowleft
↰ \nacwleftarcarrow
↗ \nacwsearcarrow,
    \nuprightcurvearrow
↖ \nacwnearcarrow,
    \nleftupcurvedarrow
↙ \nacwnwarcarrow,
    \ndownleftcurvedarrow
↘ \nacwswarcarrow,
    \nrightdowncurvedarrow
↬ \nbdoverarcarrow
↫ \nbdleftarcarrow
↬ \nbdunderarcarrow
↯ \nbdrightarcarrow
↗ \nbdnwarcarrow
↘ \nbdswarcarrow
↙ \nbdsearcarrow
↖ \nbdnearcarrow
⊢ \nleftfootline
⊣ \nrightfootline
↺ \nacwcirclearrowup
⊘ \nacwcirclearrowleft,
    \ncirclearrowleft,
    \nacwopencirclearrow
↻ \nacwcirclearrowdown,
    \nacwgapcirclearrow
⊘ \nacwcirclearrowright
↻ \ncwcirclearrowdown,
    \ncwgapcirclearrow
⊘ \ncwcirclearrowright,
    \ncirclearrowright,
    \ncwopencirclearrow

⟳	\ncwcirclearrowup	⊩	\nupmodels
⟲	\ncwcirclearrowleft	⊮	\nleftmodels
⇏	\nRrightarrow	⊮	\ndownmodels
⇑	\nUuparrow	⊮	\nrightVdash, \nVdash
⇍	\nLleftarrow	⊥	\nupVdash
⇓	\nDdownarrow	⊮	\nleftVdash, \ndashV
↛	\nlongrightarrow	⊤	\ndownVdash
↚	\nlongleftarrow	⊮	\nrightAssert, \nAssert
⇏	\nLongrightarrow	⊥	\nupAssert, \nvBar
⇍	\nLongleftarrow	⊮	\nleftAssert
↮	\nlongleftrightarrow	⊤	\ndownAssert, \nBarv
⇎	\nLongleftrightarrow	⊮	\nrightVDash, \nVDash
↛	\nlongmapsto	⊥	\nupVDash
↚	\nlongmapsfrom	⊮	\nleftVDash, \nDashV
⇏	\nLongmapsto	⊤	\ndownVDash
⇍	\nLongmapsfrom	⊮	\nVvdash
↝	\nlongrightwavearrow,	⊮	\ndashVv
	\nlongleadsto,	⊮	\nvDdash
	\nlongrightsquigarrow	⊯	\nDdashv
↜	\nlongleftwavearrow,	:	:, \mathratio
	\nlongleftsquigarrow	::	\Colon
↤	\nlongleftfootline,	−	\relbar
	\nvlongdash	≑	\dotsminusdots
↦	\nlongrightfootline,	⋊	\rJoin
	\nlongdashv	⋉	\lJoin
⊬	\nrightvdash, \nvdash	⋈	\bowtie, \Join
⊥	\nupvdash, \nperp	∝	\propto, \varpropto
⊬	\nleftvdash, \ndashv	∝	\backpropto, \propfrom
⊤	\ndownvdash	⤬	\crossing
⊬	\nrightassert, \nassert,	≬	\between
	\nshortrighttack	∣	\shortmid
⊥	\nupassert, \nshortuptack	∣	\mid, \divides
⊬	\nleftassert, \nshortlefttack	∤	\nshortmid
⊤	\ndownassert, \nshortdowntack	∤	\nmid, \ndivides
⊮	\nrightvDash, \nvDash	∥	\shortparallel
⊥	\nupvDash, \nVbar	∥	\parallel
⊮	\nleftvDash, \nDashv	∦	\nshortparallel
⊤	\ndownvDash, \nbarV	∦	\nparallel
⊮	\nrightmodels, \nmodels		

5.4 Punctuation symbols

·	\cdotp	: \colon, \mathcolon

5.5 Large operators

+	+	\bigplus	∫	∫	\int
⨉	⨉	\bigtimes	∬	∬	\iint
⋀	⋀	\bigwedge	∭	∭	\iiint
⋁	⋁	\bigvee	⨌	⨌	\iiiint
⩓	⩓	\bigwedgedot	∫⋯∫	∫⋯∫	\idotsint, \dotsint
⩔	⩔	\bigveedot			
⩕	⩕	\bigdoublewedge, \conjquant	⨑	⨑	\landupint, \intclockwise
⩖	⩖	\bigdoublevee, \disjquant	⨒	⨒	\landdownint, \awint, \intctrclockwise
⋏	⋏	\bigcurlywedge	⨍	⨍	\intbar
⋎	⋎	\bigcurlyvee	⨎	⨎	\intBar
⋂	⋂	\bigcap	⨏	⨏	\fint
⋃	⋃	\bigcup	∮	∮	\oint
⩀	⩀	\bigcapdot	∯	∯	\oiint
⊍	⊍	\bigcupdot	∰	∰	\oiiint
⩍	⩍	\bigcapplus			
⩌	⩌	\bigcupplus, \biguplus	⨓	⨓	\rcirclerightint, \ointctrclockwise
⨅	⨅	\bigsqcap	⨕	⨕	\lcirclerightint, \varointclockwise
⨆	⨆	\bigsqcup			
⩎	⩎	\bigsqcapdot	⨔	⨔	\rcircleleftint, \varointctrclockwise
⩏	⩏	\bigsqcupdot	⨖	⨖	\lcircleleftint, \ointclockwise
⩐	⩐	\bigsqcapplus			
⩑	⩑	\bigsqcupplus	⨊	⨊	\sumint
⨁	⨁	\bigoplus	⨋	⨋	\varsumint
⨂	⨂	\bigotimes	π	π	\smallprod
⨀	⨀	\bigodot	π	π	\varsmallprod
⨷	⨷	\bigoast	⨿	⨿	\smallcoprod
∏	∏	\prod	⨿	⨿	\varsmallcoprod
∏	∏	\varprod	∫	∫	\smallint
∐	∐	\coprod	√	√	\surd
⨿	⨿	\varcoprod			
∑	∑	\sum			
∑	∑	\varsum			
⨋	⨋	\osum, \modtwosum			
⨋	⨋	\varosum, \varmodtwosum			

5.6 Delimiters and accents

(((((	(, \lparen	⟩⟩⟩⟩⟩	\rangle
)))))	), \rparen	⟪⟪⟪⟪⟪	\lAngle
[[[[[	[, \lbrack	⟫⟫⟫⟫⟫	\rAngle
]]]]]	], \rbrack	⟨·⟨·⟨⟨	\langledot
⌊⌊⌊⌊⌊	\lfloor	⟩·⟩·⟩·⟩	\rangledot
⌋⌋⌋⌋⌋	\rfloor	/////	/, \mathslash
⌈⌈⌈⌈⌈	\lceil	\\\\\	\backslash
⌉⌉⌉⌉⌉	\rceil	‖‖‖‖	|, \vert
⌜⌜⌜⌜⌜	\ulcorner	‖‖‖‖	\lvert
⌝⌝⌝⌝⌝	\urcorner	‖‖‖‖	\rvert
⌞⌞⌞⌞⌞	\llcorner	‖‖‖‖‖‖‖	\Vert, |
⌟⌟⌟⌟⌟	\lrcorner	‖‖‖‖‖‖‖	\lVert
⌜⌜⌜⌜⌜	\ullcorner	‖‖‖‖‖‖‖	\rVert
⌝⌝⌝⌝⌝	\ulrcorner	‖‖‖‖‖‖‖‖	\Vvert
⟦⟦⟦⟦⟦	\lsem, \lBrack	‖‖‖‖‖‖‖‖	\lVvert
⟧⟧⟧⟧⟧	\rsem, \rBrack	‖‖‖‖‖‖‖‖	\rVvert
{{{{{	\lbrace, \\{	▕‖‖‖	\arrowvert
}}}}}	\rbrace, \\}	▕‖‖‖‖	\Arrowvert
⟨⟨⟨⟨⟨	\langle	⌈⌈⌈⌈⌈	\lgroup

18

⌋⌋⌋⌋	\rgroup	↓↓↓↓↓	\downarrow
⌠⌠⌠⌠	\lmoustache	↕↕↕↕↕	\updownarrow
⌡⌡⌡⌡	\rmoustache	⇑⇑⇑⇑⇑	\Uparrow
⎪⎪⎪⎪	\bracevert	⇓⇓⇓⇓⇓	\Downarrow
↑↑↑↑	\uparrow	⇕⇕⇕⇕⇕	\Updownarrow

$\overbrace{xxx}$	\overbrace	$\overline{xxx}$	\overlinesegment
$\underbrace{xxx}$	\underbrace	$\overleftharpoon{xxx}$	\overleftharpoon
$\overgroup{xxx}$	\overgroup	$\overrightharpoon{xxx}$	\overrightharpoon
$\undergroup{xxx}$	\undergroup	$\underline{xxx}$	\underlinesegment

$\sqrt{b}$	\sqrt	$\vec{b}$	\vec
$\widehat{xxx}$	\widehat	$ƀ$	\middlebar
$\widetilde{xxx}$	\widetilde	$ħ$	\middleslash
$\wideparen{xxx}$	\wideparen	$ꝃ$	\strokethrough

5.7 Faked symbols

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

†	\dagger	$\Bbbk$	\Bbbk
‡	\ddagger	$\Re$	\Re
¶	\mathparagraph	$\Im$	\Im
§	\mathsection	$\hbar$	\hbar
$	\mathdollar	$\hslash$	\hslash
£	\mathsterling	®	\circledR
¥	\yen	Ⓢ	\circledS

5.8 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.

\mho	\varkappa	\rhook
\nabla	\backepsilon	\diagup
\eth	\mapstochar	\diagdown
\digamma	\lhook	

6   Implementation

```
1 ⟨*style⟩
2 \RequirePackage{xkeyval}
3 \newcommand*\fdsy@choicekey[3]{%
4   \define@choicekey*{fdsymbol.sty}{#1}[\@tempa\@tempb]{#2}{#3}%
5 }
```

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

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

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

```
7 \newcommand{\fdsy@scale}{1.0}
8 \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.

```
9 \newcommand\fdsy@mweight@normal{Book}
10 \newcommand\fdsy@mweight@small{Book}
11 \newcommand\fdsy@bweight@normal{Medium}
12 \newcommand\fdsy@bweight@small{Medium}
13 \fdsy@choicekey{normalweight}{book,regular,auto}{%
14   \ifcase\@tempb\relax
15     \renewcommand\fdsy@mweight@normal{Book}%
16     \renewcommand\fdsy@mweight@small{Book}%
17   \or
18     \renewcommand\fdsy@mweight@normal{Regular}%
19     \renewcommand\fdsy@mweight@small{Regular}%
20   \or
21     \renewcommand\fdsy@mweight@normal{Book}%
22     \renewcommand\fdsy@mweight@small{Regular}%
23   \fi
24 }
25 \fdsy@choicekey{boldweight}{medium,bold,auto}{%
26   \ifcase\@tempb\relax
27     \renewcommand\fdsy@bweight@normal{Medium}%
28     \renewcommand\fdsy@bweight@small{Medium}%
29   \or
30     \renewcommand\fdsy@bweight@normal{Bold}%
31     \renewcommand\fdsy@bweight@small{Bold}%
```

```
32    \or
33      \renewcommand\fdsy@bweight@normal{Medium}%
34      \renewcommand\fdsy@bweight@small{Bold}%
35    \fi
36 }
```

Finally, the following option controls the style of large operators.

```
37 \newif\iffdsy@sfop
38 \fdsy@choicekey{opstyle}{serif,sans}{%
39    \ifcase\@tempb\relax
40      \fdsy@sfopfalse
41    \or
42      \fdsy@sfoptrue
43    \fi
44 }
45 \ExecuteOptionsX{largedelims=false,opstyle=serif}
46 \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.

```
47 \@ifpackageloaded{amsmath}{}{\RequirePackage{amsmath}}
48 \@ifpackageloaded{textcomp}{}{\RequirePackage{textcomp}}
```

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.

```
49 \iffdsy@largedelims
50    \renewcommand{\Big}{\bBigg@{1.25}}
51    \renewcommand{\bigg}{\bBigg@{1.66}}
52    \renewcommand{\Bigg}{\bBigg@{2.08}}
53 \fi
```

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

```
54 \DeclareRobustCommand{\dagger}{\fdsy@text{\textdagger}}
55 \DeclareRobustCommand{\ddagger}{\fdsy@text{\textdaggerdbl}}
56 \DeclareRobustCommand{\mathparagraph}{\fdsy@text{\textparagraph}}
57 \DeclareRobustCommand{\mathsection}{\fdsy@text{\textsection}}
58 \DeclareRobustCommand{\mathdollar}{\fdsy@text{\textdollar}}
59 \DeclareRobustCommand{\mathsterling}{\fdsy@text{\textsterling}}
60 \DeclareRobustCommand{\yen}{\fdsy@text{\textyen}}
61 \DeclareRobustCommand{\circledR}{\fdsy@text{\textcircled{%
62   \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont R}}}
63 \DeclareRobustCommand{\circledS}{\fdsy@text{\textcircled{%
64   \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont S}}}
65 \DeclareRobustCommand{\Re}{\mathfrak{R}}
66 \DeclareRobustCommand{\Im}{\mathfrak{I}}
67 \DeclareRobustCommand{\dotcong}{\mathrel{\dot{\cong}}}
68 \DeclareRobustCommand{\thicksim}{\mathrel{\text{\boldmath$\m@th\sim$}}}
```

```
69 \DeclareRobustCommand{\thickapprox}{\mathrel{\text{\boldmath$\m@th\approx$}}}
70 \let\hbar\undefined
71 \let\hslash\undefined
72 \DeclareRobustCommand{\hbar}{\middlebar h}
73 \DeclareRobustCommand{\hslash}{\middleslash h}
74 \DeclareRobustCommand{\centerdot}{\mathbin{\rule{0.15em}{0.15em}}}
```

Unneeded partial symbols.

```
75 \let\mapstochar\undefined
76 \let\lhook\undefined
77 \let\rhook\undefined
```

Shorthands to simplify the definitions below.

```
78 \newcommand\fdsy@setslot[1]{\@tempcnta #1\relax}
79 \newcommand\fdsy@nextslot{\advance\@tempcnta 1\relax}
80 \newcommand\fdsy@prevslot{\advance\@tempcnta-1\relax}
81
82 \newcommand\fdsy@@DeclareSymbol[4]{\DeclareMathSymbol{#2}{#3}{#4}{#1}}
83 \newcommand\fdsy@DeclareSymbol[3]{%
84   \if\relax\noexpand#1\let#1\undefined\fi
85   \expandafter\fdsy@@DeclareSymbol\expandafter{\the\@tempcnta}{#1}{#3}{#2}%
86   \fdsy@nextslot
87 }
88 \newcommand\fdsy@DeclareAlias[3]{\fdsy@prevslot\fdsy@DeclareSymbol{#1}{#2}{#3}}
89 \newcommand\fdsy@DeclareOperator[3]{\def#1{\DOTSB#3\slimits@}}
90 \newcommand\fdsy@DeclareIntegral[3]{\def#1{\DOTSI#3\ilimits@}}
91 \newcommand\fdsy@DeclareDelimiter[4]{%
92   \if\relax\noexpand#1\let#1\undefined\fi
93   \DeclareMathDelimiter{#1}{#2}{#3}{#4}{#3}{#4}%
94 }
95 \newcommand\fdsy@DeclareOpen[3]{\fdsy@DeclareDelimiter{#1}{\mathopen}{#2}{#3}}
96 \newcommand\fdsy@DeclareClose[3]{\fdsy@DeclareDelimiter{#1}{\mathclose}{#2}{#3}}
```

Font definitions.

```
97 \DeclareFontFamily{U}{FdSymbolA}{}
98 \DeclareFontFamily{U}{FdSymbolB}{}
99 \DeclareFontFamily{U}{FdSymbolC}{}
100 \DeclareFontFamily{U}{FdSymbolD}{}
101 \DeclareFontFamily{U}{FdSymbolE}{}
102 \DeclareFontFamily{U}{FdSymbolF}{}
103
104 \DeclareFontShape{U}{FdSymbolA}{m}{n}{
105     <-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@mweight@small
106     <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@mweight@normal
107 }{}
108 \DeclareFontShape{U}{FdSymbolA}{b}{n}{
109     <-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@bweight@small
```

```
110    <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@bweight@normal
111 }{}
112 \DeclareFontShape{U}{FdSymbolB}{m}{n}{
113    <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@mweight@small
114    <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@mweight@normal
115 }{}
116 \DeclareFontShape{U}{FdSymbolB}{b}{n}{
117    <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@bweight@small
118    <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@bweight@normal
119 }{}
120 \DeclareFontShape{U}{FdSymbolC}{m}{n}{
121    <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@mweight@small
122    <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@mweight@normal
123 }{}
124 \DeclareFontShape{U}{FdSymbolC}{b}{n}{
125    <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@bweight@small
126    <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@bweight@normal
127 }{}
128 \DeclareFontShape{U}{FdSymbolD}{m}{n}{
129    <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@mweight@small
130    <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@mweight@normal
131 }{}
132 \DeclareFontShape{U}{FdSymbolD}{b}{n}{
133    <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@bweight@small
134    <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@bweight@normal
135 }{}
136 \DeclareFontShape{U}{FdSymbolE}{m}{n}{
137    <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@mweight@small
138    <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@mweight@normal
139 }{}
140 \DeclareFontShape{U}{FdSymbolE}{b}{n}{
141    <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@bweight@small
142    <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@bweight@normal
143 }{}
144 \DeclareFontShape{U}{FdSymbolF}{m}{n}{
145    <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@mweight@small
146    <7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@mweight@normal
147 }{}
148 \DeclareFontShape{U}{FdSymbolF}{b}{n}{
149    <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@bweight@small
150    <7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@bweight@normal
151 }{}
152
153 \DeclareSymbolFont{symbols}{U}{FdSymbolA}{m}{n}
154 \DeclareSymbolFont{relations}{U}{FdSymbolB}{m}{n}
```

```
155 \DeclareSymbolFont{arrows}{U}{FdSymbolC}{m}{n}
156 \DeclareSymbolFont{narrows}{U}{FdSymbolD}{m}{n}
157 \DeclareSymbolFont{largesymbols}{U}{FdSymbolE}{m}{n}
158 \DeclareSymbolFont{delimiters}{U}{FdSymbolF}{m}{n}
159 \SetSymbolFont{symbols}{bold}{U}{FdSymbolA}{b}{n}
160 \SetSymbolFont{relations}{bold}{U}{FdSymbolB}{b}{n}
161 \SetSymbolFont{arrows}{bold}{U}{FdSymbolC}{b}{n}
162 \SetSymbolFont{narrows}{bold}{U}{FdSymbolD}{b}{n}
163 \SetSymbolFont{largesymbols}{bold}{U}{FdSymbolE}{b}{n}
164 \SetSymbolFont{delimiters}{bold}{U}{FdSymbolF}{b}{n}
```

At the moment, we still use cmsy for the calligraphic alphabet, msb for the black-board bold alphabet, and euf for the Fraktur alphabet.

```
165 \DeclareMathAlphabet{\mathcal}{OMS}{cmsy}{m}{n}
166 \SetMathAlphabet{\mathcal}{bold}{OMS}{cmsy}{b}{n}
167 \DeclareMathAlphabet{\mathbb}{U}{msb}{m}{n}
168 \DeclareMathAlphabet{\mathfrak}{U}{euf}{m}{n}
169 \SetMathAlphabet{\mathfrak}{bold}{U}{euf}{b}{n}
170 \let\Bbbk\undefined
171 \newcommand{\Bbbk}{\mathbb{\mathchar"717C}}
```

A command for taking math symbols from the text font.

```
172 \def\fdsy@bold{bold}
173 \newcommand*\fdsy@text[1]{%
174   \ifx\fdsy@bold\math@version
175     \text{\normalfont\bfseries#1}%
176   \else
177     \text{\normalfont\mdseries#1}%
178   \fi
179 }
```

FdSymbolA: binary operators and ordinary symbols

```
180 \fdsy@setslot{0}
181 \fdsy@DeclareSymbol{\cdot}{symbols}{\mathbin}
182   \fdsy@DeclareAlias{\cdotp}{symbols}{\mathpunct}
183 \fdsy@DeclareSymbol{\hdotdot}{symbols}{\mathbin}
184 \fdsy@DeclareSymbol{\vdotdot}{symbols}{\mathbin}
185   \fdsy@DeclareAlias{\colon}{symbols}{\mathpunct}
186   \fdsy@DeclareAlias{\mathcolon}{symbols}{\mathpunct}
187   \fdsy@DeclareAlias{\mathratio}{symbols}{\mathrel}
188 \fdsy@DeclareSymbol{\udotdot}{symbols}{\mathbin}
189 \fdsy@DeclareSymbol{\ddotdot}{symbols}{\mathbin}
190 \fdsy@DeclareSymbol{\hdots}{symbols}{\mathord}
191   \fdsy@DeclareAlias{\@cdots}{symbols}{\mathinner}
192   \let\cdots\@cdots
193 \fdsy@DeclareSymbol{\@vdots}{symbols}{\mathord}
194 \DeclareRobustCommand{\vdots}{\ifmmode\@vdots\else\hbox{$\@vdots$}\fi}
```

```
195 \fdsy@DeclareSymbol{\udots}{symbols}{\mathord}
196   \fdsy@DeclareAlias{\adots}{symbols}{\mathord}
197 \fdsy@DeclareSymbol{\ddots}{symbols}{\mathord}
198 \fdsy@DeclareSymbol{\righttherefore}{symbols}{\mathord}
199 \fdsy@DeclareSymbol{\uptherefore}{symbols}{\mathord}
200   \fdsy@DeclareAlias{\therefore}{symbols}{\mathord}
201 \fdsy@DeclareSymbol{\lefttherefore}{symbols}{\mathord}
202 \fdsy@DeclareSymbol{\downtherefore}{symbols}{\mathord}
203   \fdsy@DeclareAlias{\because}{symbols}{\mathord}
204 \fdsy@DeclareSymbol{\squaredots}{symbols}{\mathord}
205   \fdsy@DeclareAlias{\Colon}{symbols}{\mathrel}
206 \fdsy@DeclareSymbol{\minus}{symbols}{\mathbin}
207 \fdsy@DeclareSymbol{\medslash}{symbols}{\mathbin}
208   \fdsy@DeclareAlias{\smalldivslash}{symbols}{\mathbin}
209 \fdsy@DeclareSymbol{\medbackslash}{symbols}{\mathbin}
210   \fdsy@DeclareAlias{\smallsetminus}{symbols}{\mathbin}
211 \fdsy@DeclareSymbol{\plus}{symbols}{\mathbin}
212 \fdsy@DeclareSymbol{\times}{symbols}{\mathbin}
213 \fdsy@DeclareSymbol{\dotminus}{symbols}{\mathbin}
214 \fdsy@DeclareSymbol{\minusdot}{symbols}{\mathbin}
215 \fdsy@DeclareSymbol{\div}{symbols}{\mathbin}
216 \fdsy@DeclareSymbol{\minusfdots}{symbols}{\mathbin}
217 \fdsy@DeclareSymbol{\minusrdots}{symbols}{\mathbin}
218 \fdsy@DeclareSymbol{\dotsminusdots}{symbols}{\mathrel}
219 \fdsy@DeclareSymbol{\pm}{symbols}{\mathbin}
220 \fdsy@DeclareSymbol{\mp}{symbols}{\mathbin}
221 \fdsy@DeclareSymbol{\dotplus}{symbols}{\mathbin}
222 \fdsy@DeclareSymbol{\plusdot}{symbols}{\mathbin}
223 \fdsy@DeclareSymbol{\dottimes}{symbols}{\mathbin}
224 \fdsy@DeclareSymbol{\timesbar}{symbols}{\mathbin}
225 \fdsy@DeclareSymbol{\divideontimes}{symbols}{\mathbin}
226 \fdsy@DeclareSymbol{\neg}{symbols}{\mathord}
227   \fdsy@DeclareAlias{\lnot}{symbols}{\mathord}
228   \fdsy@DeclareAlias{\minushookdown}{symbols}{\mathbin}
229 \fdsy@DeclareSymbol{\backneg}{symbols}{\mathord}
230   \fdsy@DeclareAlias{\hookdownminus}{symbols}{\mathbin}
231   \fdsy@DeclareAlias{\invneg}{symbols}{\mathord}
232   \fdsy@DeclareAlias{\invnot}{symbols}{\mathord}
233 \fdsy@DeclareSymbol{\intprod}{symbols}{\mathbin}
234   \fdsy@DeclareAlias{\minushookup}{symbols}{\mathbin}
235   \fdsy@DeclareAlias{\turnedneg}{symbols}{\mathord}
236   \fdsy@DeclareAlias{\turnednot}{symbols}{\mathord}
237 \fdsy@DeclareSymbol{\intprodr}{symbols}{\mathbin}
238   \fdsy@DeclareAlias{\hookupminus}{symbols}{\mathbin}
239   \fdsy@DeclareAlias{\turnedbackneg}{symbols}{\mathord}
```

```
240 \fdsy@DeclareSymbol{\leftthreetimes}{symbols}{\mathbin}
241 \fdsy@DeclareSymbol{\rightthreetimes}{symbols}{\mathbin}
242 \fdsy@DeclareSymbol{\dtimes}{symbols}{\mathbin}
243   \fdsy@DeclareAlias{\btimes}{symbols}{\mathbin}
244 \fdsy@DeclareSymbol{\rtimes}{symbols}{\mathbin}
245   \fdsy@DeclareAlias{\rJoin}{symbols}{\mathrel}
246 \fdsy@DeclareSymbol{\utimes}{symbols}{\mathbin}
247   \fdsy@DeclareAlias{\ttimes}{symbols}{\mathbin}
248 \fdsy@DeclareSymbol{\ltimes}{symbols}{\mathbin}
249   \fdsy@DeclareAlias{\lJoin}{symbols}{\mathrel}
250 \fdsy@DeclareSymbol{\bowtie}{symbols}{\mathrel}
251   \fdsy@DeclareAlias{\Join}{symbols}{\mathrel}
252   \fdsy@DeclareAlias{\lrtimes}{symbols}{\mathbin}
253 \fdsy@DeclareSymbol{\upbowtie}{symbols}{\mathbin}
254   \fdsy@DeclareAlias{\hourglass}{symbols}{\mathbin}
255 \fdsy@DeclareSymbol{\rightY}{symbols}{\mathbin}
256 \fdsy@DeclareSymbol{\upY}{symbols}{\mathbin}
257 \fdsy@DeclareSymbol{\leftY}{symbols}{\mathbin}
258 \fdsy@DeclareSymbol{\downY}{symbols}{\mathbin}
259 \fdsy@DeclareSymbol{\wedge}{symbols}{\mathbin}
260   \fdsy@DeclareAlias{\land}{symbols}{\mathbin}
261 \fdsy@DeclareSymbol{\vee}{symbols}{\mathbin}
262   \fdsy@DeclareAlias{\lor}{symbols}{\mathbin}
263 \fdsy@DeclareSymbol{\wedgedot}{symbols}{\mathbin}
264 \fdsy@DeclareSymbol{\veedot}{symbols}{\mathbin}
265 \fdsy@DeclareSymbol{\doublewedge}{symbols}{\mathbin}
266   \fdsy@DeclareAlias{\wedgeonwedge}{symbols}{\mathbin}
267 \fdsy@DeclareSymbol{\doublevee}{symbols}{\mathbin}
268   \fdsy@DeclareAlias{\veeonvee}{symbols}{\mathbin}
269 \fdsy@DeclareSymbol{\curlywedge}{symbols}{\mathbin}
270 \fdsy@DeclareSymbol{\curlyvee}{symbols}{\mathbin}
271 \fdsy@DeclareSymbol{\barwedge}{symbols}{\mathbin}
272 \fdsy@DeclareSymbol{\veebar}{symbols}{\mathbin}
273 \fdsy@DeclareSymbol{\doublebarwedge}{symbols}{\mathbin}
274 \fdsy@DeclareSymbol{\veedoublebar}{symbols}{\mathbin}
275 \fdsy@DeclareSymbol{\cup}{symbols}{\mathbin}
276 \fdsy@DeclareSymbol{\cap}{symbols}{\mathbin}
277 \fdsy@DeclareSymbol{\doublecup}{symbols}{\mathbin}
278   \fdsy@DeclareAlias{\Cup}{symbols}{\mathbin}
279 \fdsy@DeclareSymbol{\doublecap}{symbols}{\mathbin}
280   \fdsy@DeclareAlias{\Cap}{symbols}{\mathbin}
281 \fdsy@DeclareSymbol{\cupdot}{symbols}{\mathbin}
282 \fdsy@DeclareSymbol{\capdot}{symbols}{\mathbin}
283 \fdsy@DeclareSymbol{\cupplus}{symbols}{\mathbin}
284   \fdsy@DeclareAlias{\uplus}{symbols}{\mathbin}
```

```
285 \fdsy@DeclareSymbol{\capplus}{symbols}{\mathbin}
286 \fdsy@DeclareSymbol{\sqcup}{symbols}{\mathbin}
287 \fdsy@DeclareSymbol{\sqcap}{symbols}{\mathbin}
288 \fdsy@DeclareSymbol{\doublesqcup}{symbols}{\mathbin}
289   \fdsy@DeclareAlias{\Sqcup}{symbols}{\mathbin}
290 \fdsy@DeclareSymbol{\doublesqcap}{symbols}{\mathbin}
291   \fdsy@DeclareAlias{\Sqcap}{symbols}{\mathbin}
292 \fdsy@DeclareSymbol{\sqcupdot}{symbols}{\mathbin}
293 \fdsy@DeclareSymbol{\sqcapdot}{symbols}{\mathbin}
294 \fdsy@DeclareSymbol{\sqcupplus}{symbols}{\mathbin}
295 \fdsy@DeclareSymbol{\sqcapplus}{symbols}{\mathbin}
296 \fdsy@DeclareSymbol{\pullback}{symbols}{\mathbin}
297 \fdsy@DeclareSymbol{\pushout}{symbols}{\mathbin}
298 \fdsy@DeclareSymbol{\smalltriangleright}{symbols}{\mathbin}
299 \fdsy@DeclareSymbol{\smalltriangleup}{symbols}{\mathbin}
300 \fdsy@DeclareSymbol{\smalltriangleleft}{symbols}{\mathbin}
301 \fdsy@DeclareSymbol{\smalltriangledown}{symbols}{\mathbin}
302 \fdsy@DeclareSymbol{\smallblacktriangleright}{symbols}{\mathbin}
303 \fdsy@DeclareSymbol{\smallblacktriangleup}{symbols}{\mathbin}
304 \fdsy@DeclareSymbol{\smallblacktriangleleft}{symbols}{\mathbin}
305 \fdsy@DeclareSymbol{\smallblacktriangledown}{symbols}{\mathbin}
306 \fdsy@DeclareSymbol{\medtriangleright}{symbols}{\mathbin}
307   \fdsy@DeclareAlias{\triangleright}{symbols}{\mathbin}
308 \fdsy@DeclareSymbol{\medtriangleup}{symbols}{\mathbin}
309   \fdsy@DeclareAlias{\triangle}{symbols}{\mathbin}
310   \fdsy@DeclareAlias{\vartriangle}{symbols}{\mathbin}
311 \fdsy@DeclareSymbol{\medtriangleleft}{symbols}{\mathbin}
312   \fdsy@DeclareAlias{\triangleleft}{symbols}{\mathbin}
313 \fdsy@DeclareSymbol{\medtriangledown}{symbols}{\mathbin}
314   \fdsy@DeclareAlias{\triangledown}{symbols}{\mathbin}
315 \fdsy@DeclareSymbol{\medblacktriangleright}{symbols}{\mathbin}
316   \fdsy@DeclareAlias{\blacktriangleright}{symbols}{\mathbin}
317 \fdsy@DeclareSymbol{\medblacktriangleup}{symbols}{\mathbin}
318   \fdsy@DeclareAlias{\blacktriangle}{symbols}{\mathbin}
319 \fdsy@DeclareSymbol{\medblacktriangleleft}{symbols}{\mathbin}
320   \fdsy@DeclareAlias{\blacktriangleleft}{symbols}{\mathbin}
321 \fdsy@DeclareSymbol{\medblacktriangledown}{symbols}{\mathbin}
322   \fdsy@DeclareAlias{\blacktriangledown}{symbols}{\mathbin}
323 \fdsy@DeclareSymbol{\largetriangleup}{symbols}{\mathord}
324   \fdsy@DeclareAlias{\bigtriangleup}{symbols}{\mathbin}
325 \fdsy@DeclareSymbol{\largetriangledown}{symbols}{\mathord}
326   \fdsy@DeclareAlias{\bigtriangledown}{symbols}{\mathbin}
327 \fdsy@DeclareSymbol{\smallcircle}{symbols}{\mathbin}
328   \fdsy@DeclareAlias{\circ}{symbols}{\mathbin}
329   \fdsy@DeclareAlias{\smwhtcircle}{symbols}{\mathbin}
```

```
330 \fdsy@DeclareSymbol{\smallblackcircle}{symbols}{\mathbin}
331   \fdsy@DeclareAlias{\bullet}{symbols}{\mathbin}
332   \fdsy@DeclareAlias{\smblkcircle}{symbols}{\mathbin}
333 \fdsy@DeclareSymbol{\medcircle}{symbols}{\mathbin}
334   \fdsy@DeclareAlias{\mdlgwhtcircle}{symbols}{\mathbin}
335 \fdsy@DeclareSymbol{\medblackcircle}{symbols}{\mathbin}
336   \fdsy@DeclareAlias{\mdlgblkcircle}{symbols}{\mathbin}
337 \fdsy@DeclareSymbol{\ominus}{symbols}{\mathbin}
338 \fdsy@DeclareSymbol{\overt}{symbols}{\mathbin}
339   \fdsy@DeclareAlias{\circledvert}{symbols}{\mathbin}
340 \fdsy@DeclareSymbol{\oslash}{symbols}{\mathbin}
341 \fdsy@DeclareSymbol{\obackslash}{symbols}{\mathbin}
342   \fdsy@DeclareAlias{\obslash}{symbols}{\mathbin}
343 \fdsy@DeclareSymbol{\oplus}{symbols}{\mathbin}
344 \fdsy@DeclareSymbol{\otimes}{symbols}{\mathbin}
345 \fdsy@DeclareSymbol{\odot}{symbols}{\mathbin}
346 \fdsy@DeclareSymbol{\ocirc}{symbols}{\mathbin}
347   \fdsy@DeclareAlias{\circledcirc}{symbols}{\mathbin}
348 \fdsy@DeclareSymbol{\oast}{symbols}{\mathbin}
349   \fdsy@DeclareAlias{\circledast}{symbols}{\mathbin}
350 \fdsy@DeclareSymbol{\odash}{symbols}{\mathbin}
351   \fdsy@DeclareAlias{\circleddash}{symbols}{\mathbin}
352 \fdsy@DeclareSymbol{\oequal}{symbols}{\mathbin}
353   \fdsy@DeclareAlias{\circledequal}{symbols}{\mathbin}
354 \fdsy@DeclareSymbol{\emptyset}{symbols}{\mathord}
355   \fdsy@DeclareAlias{\diameter}{symbols}{\mathord}
356   \fdsy@DeclareAlias{\varnothing}{symbols}{\mathord}
357 \fdsy@DeclareSymbol{\revemptyset}{symbols}{\mathord}
358 \fdsy@DeclareSymbol{\largecircle}{symbols}{\mathord}
359   \fdsy@DeclareAlias{\bigcirc}{symbols}{\mathord}
360   \fdsy@DeclareAlias{\lgwhtcircle}{symbols}{\mathord}
361 \fdsy@DeclareSymbol{\largeblackcircle}{symbols}{\mathord}
362   \fdsy@DeclareAlias{\lgblkcircle}{symbols}{\mathord}
363 \fdsy@DeclareSymbol{\smallsquare}{symbols}{\mathbin}
364   \fdsy@DeclareAlias{\smwhtsquare}{symbols}{\mathbin}
365 \fdsy@DeclareSymbol{\smallblacksquare}{symbols}{\mathbin}
366   \fdsy@DeclareAlias{\smblksquare}{symbols}{\mathbin}
367 \fdsy@DeclareSymbol{\medsquare}{symbols}{\mathbin}
368   \fdsy@DeclareAlias{\square}{symbols}{\mathbin}
369   \fdsy@DeclareAlias{\Box}{symbols}{\mathbin}
370   \fdsy@DeclareAlias{\mdlgwhtsquare}{symbols}{\mathbin}
371   \fdsy@DeclareAlias{\mdwhtsquare}{symbols}{\mathbin}
372 \fdsy@DeclareSymbol{\medblacksquare}{symbols}{\mathbin}
373   \fdsy@DeclareAlias{\mdlgblksquare}{symbols}{\mathbin}
374   \fdsy@DeclareAlias{\mdblksquare}{symbols}{\mathbin}
```

```
375 \fdsy@DeclareSymbol{\boxminus}{symbols}{\mathbin}
376 \fdsy@DeclareSymbol{\boxvert}{symbols}{\mathbin}
377   \fdsy@DeclareAlias{\boxbar}{symbols}{\mathbin}
378 \fdsy@DeclareSymbol{\boxslash}{symbols}{\mathbin}
379   \fdsy@DeclareAlias{\boxdiag}{symbols}{\mathbin}
380 \fdsy@DeclareSymbol{\boxbackslash}{symbols}{\mathbin}
381   \fdsy@DeclareAlias{\boxbslash}{symbols}{\mathbin}
382 \fdsy@DeclareSymbol{\boxplus}{symbols}{\mathbin}
383 \fdsy@DeclareSymbol{\boxtimes}{symbols}{\mathbin}
384 \fdsy@DeclareSymbol{\boxdot}{symbols}{\mathbin}
385 \fdsy@DeclareSymbol{\boxbox}{symbols}{\mathbin}
386 \fdsy@DeclareSymbol{\largesquare}{symbols}{\mathord}
387   \fdsy@DeclareAlias{\lgwhtsquare}{symbols}{\mathord}
388 \fdsy@DeclareSymbol{\largeblacksquare}{symbols}{\mathord}
389   \fdsy@DeclareAlias{\lgblksquare}{symbols}{\mathord}
390 \fdsy@DeclareSymbol{\smalldiamond}{symbols}{\mathbin}
391   \fdsy@DeclareAlias{\diamond}{symbols}{\mathbin}
392   \fdsy@DeclareAlias{\smwhtdiamond}{symbols}{\mathbin}
393 \fdsy@DeclareSymbol{\smallblackdiamond}{symbols}{\mathbin}
394   \fdsy@DeclareAlias{\blackdiamond}{symbols}{\mathbin}
395   \fdsy@DeclareAlias{\smblkdiamond}{symbols}{\mathbin}
396 \fdsy@DeclareSymbol{\meddiamond}{symbols}{\mathbin}
397   \fdsy@DeclareAlias{\Diamond}{symbols}{\mathbin}
398   \fdsy@DeclareAlias{\mdlgwhtdiamond}{symbols}{\mathbin}
399   \fdsy@DeclareAlias{\mdwhtdiamond}{symbols}{\mathbin}
400 \fdsy@DeclareSymbol{\medblackdiamond}{symbols}{\mathbin}
401   \fdsy@DeclareAlias{\mdlgblkdiamond}{symbols}{\mathbin}
402   \fdsy@DeclareAlias{\mdblkdiamond}{symbols}{\mathbin}
403 \fdsy@DeclareSymbol{\diamondminus}{symbols}{\mathbin}
404 \fdsy@DeclareSymbol{\diamondvert}{symbols}{\mathbin}
405 \fdsy@DeclareSymbol{\diamondslash}{symbols}{\mathbin}
406 \fdsy@DeclareSymbol{\diamondbackslash}{symbols}{\mathbin}
407   \fdsy@DeclareAlias{\diamondbslash}{symbols}{\mathbin}
408 \fdsy@DeclareSymbol{\diamondplus}{symbols}{\mathbin}
409 \fdsy@DeclareSymbol{\diamondtimes}{symbols}{\mathbin}
410 \fdsy@DeclareSymbol{\diamonddot}{symbols}{\mathbin}
411   \fdsy@DeclareAlias{\diamondcdot}{symbols}{\mathbin}
412 \fdsy@DeclareSymbol{\diamonddiamond}{symbols}{\mathbin}
413 \fdsy@DeclareSymbol{\smalllozenge}{symbols}{\mathord}
414   \fdsy@DeclareAlias{\smwhtlozenge}{symbols}{\mathord}
415 \fdsy@DeclareSymbol{\smallblacklozenge}{symbols}{\mathord}
416   \fdsy@DeclareAlias{\smblklozenge}{symbols}{\mathord}
417 \fdsy@DeclareSymbol{\medlozenge}{symbols}{\mathord}
418   \fdsy@DeclareAlias{\lozenge}{symbols}{\mathord}
419   \fdsy@DeclareAlias{\mdlgwhtlozenge}{symbols}{\mathord}
```

```
420    \fdsy@DeclareAlias{\mdwhtlozenge}{symbols}{\mathord}
421  \fdsy@DeclareSymbol{\medblacklozenge}{symbols}{\mathord}
422    \fdsy@DeclareAlias{\blacklozenge}{symbols}{\mathord}
423    \fdsy@DeclareAlias{\mdlgblklozenge}{symbols}{\mathord}
424    \fdsy@DeclareAlias{\mdblklozenge}{symbols}{\mathord}
425  \fdsy@DeclareSymbol{\lozengeminus}{symbols}{\mathord}
426  \fdsy@DeclareSymbol{\smallwhitestar}{symbols}{\mathbin}
427    \fdsy@DeclareAlias{\smwhitestar}{symbols}{\mathbin}
428  \fdsy@DeclareSymbol{\smallblackstar}{symbols}{\mathbin}
429    \fdsy@DeclareAlias{\star}{symbols}{\mathbin}
430  \fdsy@DeclareSymbol{\medwhitestar}{symbols}{\mathbin}
431  \fdsy@DeclareSymbol{\medblackstar}{symbols}{\mathbin}
432    \fdsy@DeclareAlias{\medstar}{symbols}{\mathbin}
433  \fdsy@DeclareSymbol{\largewhitestar}{symbols}{\mathord}
434  \fdsy@DeclareSymbol{\largeblackstar}{symbols}{\mathord}
435    \fdsy@DeclareAlias{\bigstar}{symbols}{\mathord}
436  \fdsy@DeclareSymbol{\ast}{symbols}{\mathbin}
437  \fdsy@DeclareSymbol{\infty}{symbols}{\mathord}
438  \fdsy@DeclareSymbol{\propto}{symbols}{\mathrel}
439    \fdsy@DeclareAlias{\varpropto}{symbols}{\mathrel}
440  \fdsy@DeclareSymbol{\backpropto}{symbols}{\mathrel}
441    \fdsy@DeclareAlias{\propfrom}{symbols}{\mathrel}
442  \fdsy@DeclareSymbol{\crossing}{symbols}{\mathrel}
443  \fdsy@DeclareSymbol{\between}{symbols}{\mathrel}
444  \fdsy@DeclareSymbol{\intercal}{symbols}{\mathbin}
445  \fdsy@DeclareSymbol{\wreath}{symbols}{\mathbin}
446    \fdsy@DeclareAlias{\wr}{symbols}{\mathbin}
447  \fdsy@DeclareSymbol{\angle}{symbols}{\mathord}
448  \fdsy@DeclareSymbol{\revangle}{symbols}{\mathord}
449  \fdsy@DeclareSymbol{\measuredangle}{symbols}{\mathord}
450  \fdsy@DeclareSymbol{\revmeasuredangle}{symbols}{\mathord}
451    \fdsy@DeclareAlias{\measuredangleleft}{symbols}{\mathord}
452  \fdsy@DeclareSymbol{\sphericalangle}{symbols}{\mathord}
453  \fdsy@DeclareSymbol{\sphericalangleup}{symbols}{\mathord}
454  \fdsy@DeclareSymbol{\sphericalangleleft}{symbols}{\mathord}
455    \fdsy@DeclareAlias{\revsphericalangle}{symbols}{\mathord}
456    \fdsy@DeclareAlias{\gtlpar}{symbols}{\mathord}
457  \fdsy@DeclareSymbol{\sphericalangledown}{symbols}{\mathord}
458  \fdsy@DeclareSymbol{\rightangle}{symbols}{\mathord}
459  \fdsy@DeclareSymbol{\measuredrightangle}{symbols}{\mathord}
460  \fdsy@DeclareSymbol{\rightanglesquare}{symbols}{\mathord}
461    \fdsy@DeclareAlias{\rightanglesqr}{symbols}{\mathord}
462  \fdsy@DeclareSymbol{\measuredrightangledot}{symbols}{\mathord}
463    \fdsy@DeclareAlias{\rightanglemdot}{symbols}{\mathord}
464  \fdsy@DeclareSymbol{\prime}{symbols}{\mathord}
```

```
465 \fdsy@DeclareSymbol{\backprime}{symbols}{\mathord}
466 \iffdsy@sfop
467   \fdsy@DeclareSymbol{\varsmallprod}{symbols}{\mathop}
468   \fdsy@DeclareSymbol{\smallprod}{symbols}{\mathop}
469   \fdsy@DeclareSymbol{\varsmallcoprod}{symbols}{\mathop}
470     \fdsy@DeclareAlias{\varamalg}{symbols}{\mathbin}
471   \fdsy@DeclareSymbol{\smallcoprod}{symbols}{\mathop}
472     \fdsy@DeclareAlias{\amalg}{symbols}{\mathbin}
473 \else
474   \fdsy@DeclareSymbol{\smallprod}{symbols}{\mathop}
475   \fdsy@DeclareSymbol{\varsmallprod}{symbols}{\mathop}
476   \fdsy@DeclareSymbol{\smallcoprod}{symbols}{\mathop}
477     \fdsy@DeclareAlias{\amalg}{symbols}{\mathbin}
478   \fdsy@DeclareSymbol{\varsmallcoprod}{symbols}{\mathop}
479     \fdsy@DeclareAlias{\varamalg}{symbols}{\mathbin}
480 \fi
481 \fdsy@DeclareSymbol{\smallint}{symbols}{\mathop}
482 \fdsy@DeclareSymbol{\checkmark}{symbols}{\mathord}
483 \fdsy@DeclareSymbol{\lightning}{symbols}{\mathord}
484   \fdsy@DeclareAlias{\downzigzagarrow}{symbols}{\mathord}
485 \fdsy@DeclareSymbol{\diamondsuit}{symbols}{\mathord}
486 \fdsy@DeclareSymbol{\vardiamondsuit}{symbols}{\mathord}
487 \fdsy@DeclareSymbol{\heartsuit}{symbols}{\mathord}
488 \fdsy@DeclareSymbol{\varheartsuit}{symbols}{\mathord}
489 \fdsy@DeclareSymbol{\spadesuit}{symbols}{\mathord}
490 \fdsy@DeclareSymbol{\clubsuit}{symbols}{\mathord}
491 \fdsy@DeclareSymbol{\maltese}{symbols}{\mathord}
492 \fdsy@DeclareSymbol{\starofdavid}{symbols}{\mathord}
493 \fdsy@DeclareSymbol{\sector}{symbols}{\mathord}
494 \fdsy@DeclareSymbol{\forall}{symbols}{\mathord}
495 \fdsy@DeclareSymbol{\exists}{symbols}{\mathord}
496 \fdsy@DeclareSymbol{\nexists}{symbols}{\mathord}
497 \fdsy@DeclareSymbol{\Finv}{symbols}{\mathord}
498 \fdsy@DeclareSymbol{\Game}{symbols}{\mathord}
499 \fdsy@DeclareSymbol{\complement}{symbols}{\mathord}
500 \fdsy@DeclareSymbol{\flat}{symbols}{\mathord}
501 \fdsy@DeclareSymbol{\natural}{symbols}{\mathord}
502 \fdsy@DeclareSymbol{\sharp}{symbols}{\mathord}
503 \fdsy@DeclareSymbol{\aleph}{symbols}{\mathord}
504 \fdsy@DeclareSymbol{\beth}{symbols}{\mathord}
505 \fdsy@DeclareSymbol{\gimel}{symbols}{\mathord}
506 \fdsy@DeclareSymbol{\daleth}{symbols}{\mathord}
507 \fdsy@DeclareSymbol{\wp}{symbols}{\mathord}
```

FdSymbolB: relations
```
508 \fdsy@setslot{0}
```

```
509 \fdsy@DeclareSymbol{\equal}{relations}{\mathrel}
510 \fdsy@DeclareSymbol{\equiv}{relations}{\mathrel}
511 \fdsy@DeclareSymbol{\sim}{relations}{\mathrel}
512 \fdsy@DeclareSymbol{\backsim}{relations}{\mathrel}
513 \fdsy@DeclareSymbol{\approx}{relations}{\mathrel}
514 \fdsy@DeclareSymbol{\triplesim}{relations}{\mathrel}
515   \fdsy@DeclareAlias{\approxident}{relations}{\mathrel}
516 \fdsy@DeclareSymbol{\simeq}{relations}{\mathrel}
517 \fdsy@DeclareSymbol{\backsimeq}{relations}{\mathrel}
518 \fdsy@DeclareSymbol{\eqsim}{relations}{\mathrel}
519 \fdsy@DeclareSymbol{\cong}{relations}{\mathrel}
520 \fdsy@DeclareSymbol{\backcong}{relations}{\mathrel}
521 \fdsy@DeclareSymbol{\approxeq}{relations}{\mathrel}
522 \fdsy@DeclareSymbol{\bumpeq}{relations}{\mathrel}
523 \fdsy@DeclareSymbol{\bumpeqq}{relations}{\mathrel}
524 \fdsy@DeclareSymbol{\Bumpeq}{relations}{\mathrel}
525 \fdsy@DeclareSymbol{\doteq}{relations}{\mathrel}
526 \fdsy@DeclareSymbol{\eqdot}{relations}{\mathrel}
527 \fdsy@DeclareSymbol{\Doteq}{relations}{\mathrel}
528   \fdsy@DeclareAlias{\doteqdot}{relations}{\mathrel}
529 \fdsy@DeclareSymbol{\fallingdotseq}{relations}{\mathrel}
530 \fdsy@DeclareSymbol{\risingdotseq}{relations}{\mathrel}
531 \fdsy@DeclareSymbol{\coloneq}{relations}{\mathrel}
532   \fdsy@DeclareAlias{\coloneqq}{relations}{\mathrel}
533 \fdsy@DeclareSymbol{\eqcolon}{relations}{\mathrel}
534   \fdsy@DeclareAlias{\eqqcolon}{relations}{\mathrel}
535 \fdsy@DeclareSymbol{\smile}{relations}{\mathrel}
536   \fdsy@DeclareAlias{\smallsmile}{relations}{\mathrel}
537 \fdsy@DeclareSymbol{\frown}{relations}{\mathrel}
538   \fdsy@DeclareAlias{\smallfrown}{relations}{\mathrel}
539 \fdsy@DeclareSymbol{\smilefrown}{relations}{\mathrel}
540   \fdsy@DeclareAlias{\asymp}{relations}{\mathrel}
541 \fdsy@DeclareSymbol{\frownsmile}{relations}{\mathrel}
542   \fdsy@DeclareAlias{\closure}{relations}{\mathrel}
543 \fdsy@DeclareSymbol{\smileeq}{relations}{\mathrel}
544 \fdsy@DeclareSymbol{\frowneq}{relations}{\mathrel}
545   \fdsy@DeclareAlias{\arceq}{relations}{\mathrel}
546 \fdsy@DeclareSymbol{\eqcirc}{relations}{\mathrel}
547 \fdsy@DeclareSymbol{\circeq}{relations}{\mathrel}
548 \fdsy@DeclareSymbol{\wedgeq}{relations}{\mathrel}
549   \fdsy@DeclareAlias{\hateq}{relations}{\mathrel}
550 \fdsy@DeclareSymbol{\veeeq}{relations}{\mathrel}
551 \fdsy@DeclareSymbol{\stareq}{relations}{\mathrel}
552 \fdsy@DeclareSymbol{\triangleeq}{relations}{\mathrel}
553   \fdsy@DeclareAlias{\triangleq}{relations}{\mathrel}
```

```
554 \fdsy@DeclareSymbol{\in}{relations}{\mathrel}
555 \fdsy@DeclareSymbol{\owns}{relations}{\mathrel}
556   \fdsy@DeclareAlias{\ni}{relations}{\mathrel}
557 \fdsy@DeclareSymbol{\less}{relations}{\mathrel}
558 \fdsy@DeclareSymbol{\gtr}{relations}{\mathrel}
559 \fdsy@DeclareSymbol{\leq}{relations}{\mathrel}
560   \fdsy@DeclareAlias{\le}{relations}{\mathrel}
561 \fdsy@DeclareSymbol{\geq}{relations}{\mathrel}
562   \fdsy@DeclareAlias{\ge}{relations}{\mathrel}
563 \fdsy@DeclareSymbol{\leqslant}{relations}{\mathrel}
564 \fdsy@DeclareSymbol{\geqslant}{relations}{\mathrel}
565 \fdsy@DeclareSymbol{\leqq}{relations}{\mathrel}
566 \fdsy@DeclareSymbol{\geqq}{relations}{\mathrel}
567 \fdsy@DeclareSymbol{\lesssim}{relations}{\mathrel}
568 \fdsy@DeclareSymbol{\gtrsim}{relations}{\mathrel}
569 \fdsy@DeclareSymbol{\lessapprox}{relations}{\mathrel}
570 \fdsy@DeclareSymbol{\gtrapprox}{relations}{\mathrel}
571 \fdsy@DeclareSymbol{\lessgtr}{relations}{\mathrel}
572 \fdsy@DeclareSymbol{\gtrless}{relations}{\mathrel}
573 \fdsy@DeclareSymbol{\lesseqgtr}{relations}{\mathrel}
574 \fdsy@DeclareSymbol{\gtreqless}{relations}{\mathrel}
575 \fdsy@DeclareSymbol{\lesseqqgtr}{relations}{\mathrel}
576 \fdsy@DeclareSymbol{\gtreqqless}{relations}{\mathrel}
577 \fdsy@DeclareSymbol{\lesseqslantgtr}{relations}{\mathrel}
578   \fdsy@DeclareAlias{\lesg}{relations}{\mathrel}
579   \fdsy@DeclareAlias{\lesseqgtrslant}{relations}{\mathrel}
580 \fdsy@DeclareSymbol{\gtreqslantless}{relations}{\mathrel}
581   \fdsy@DeclareAlias{\gesl}{relations}{\mathrel}
582   \fdsy@DeclareAlias{\gtreqlessslant}{relations}{\mathrel}
583 \fdsy@DeclareSymbol{\ll}{relations}{\mathrel}
584 \fdsy@DeclareSymbol{\gg}{relations}{\mathrel}
585 \fdsy@DeclareSymbol{\lll}{relations}{\mathrel}
586   \fdsy@DeclareAlias{\llless}{relations}{\mathrel}
587 \fdsy@DeclareSymbol{\ggg}{relations}{\mathrel}
588   \fdsy@DeclareAlias{\gggtr}{relations}{\mathrel}
589 \fdsy@DeclareSymbol{\lessclosed}{relations}{\mathrel}
590   \fdsy@DeclareAlias{\lhd}{relations}{\mathbin}
591   \fdsy@DeclareAlias{\vartriangleleft}{relations}{\mathrel}
592 \fdsy@DeclareSymbol{\gtrclosed}{relations}{\mathrel}
593   \fdsy@DeclareAlias{\rhd}{relations}{\mathbin}
594   \fdsy@DeclareAlias{\vartriangleright}{relations}{\mathrel}
595 \fdsy@DeclareSymbol{\leqclosed}{relations}{\mathrel}
596   \fdsy@DeclareAlias{\unlhd}{relations}{\mathbin}
597   \fdsy@DeclareAlias{\trianglelefteq}{relations}{\mathrel}
598 \fdsy@DeclareSymbol{\geqclosed}{relations}{\mathrel}
```

```
599    \fdsy@DeclareAlias{\unrhd}{relations}{\mathbin}
600    \fdsy@DeclareAlias{\trianglerighteq}{relations}{\mathrel}
601 \fdsy@DeclareSymbol{\lesscc}{relations}{\mathrel}
602    \fdsy@DeclareAlias{\ltcc}{relations}{\mathrel}
603 \fdsy@DeclareSymbol{\gtrcc}{relations}{\mathrel}
604    \fdsy@DeclareAlias{\gtcc}{relations}{\mathrel}
605 \fdsy@DeclareSymbol{\leqslcc}{relations}{\mathrel}
606    \fdsy@DeclareAlias{\lescc}{relations}{\mathrel}
607 \fdsy@DeclareSymbol{\geqslcc}{relations}{\mathrel}
608    \fdsy@DeclareAlias{\gescc}{relations}{\mathrel}
609 \fdsy@DeclareSymbol{\sqsubset}{relations}{\mathrel}
610 \fdsy@DeclareSymbol{\sqsupset}{relations}{\mathrel}
611 \fdsy@DeclareSymbol{\sqsubseteq}{relations}{\mathrel}
612 \fdsy@DeclareSymbol{\sqsupseteq}{relations}{\mathrel}
613 \fdsy@DeclareSymbol{\sqsubseteqq}{relations}{\mathrel}
614 \fdsy@DeclareSymbol{\sqsupseteqq}{relations}{\mathrel}
615 \fdsy@DeclareSymbol{\Sqsubset}{relations}{\mathrel}
616 \fdsy@DeclareSymbol{\Sqsupset}{relations}{\mathrel}
617 \fdsy@DeclareSymbol{\subset}{relations}{\mathrel}
618 \fdsy@DeclareSymbol{\supset}{relations}{\mathrel}
619 \fdsy@DeclareSymbol{\subseteq}{relations}{\mathrel}
620 \fdsy@DeclareSymbol{\supseteq}{relations}{\mathrel}
621 \fdsy@DeclareSymbol{\subseteqq}{relations}{\mathrel}
622 \fdsy@DeclareSymbol{\supseteqq}{relations}{\mathrel}
623 \fdsy@DeclareSymbol{\Subset}{relations}{\mathrel}
624 \fdsy@DeclareSymbol{\Supset}{relations}{\mathrel}
625 \fdsy@DeclareSymbol{\prec}{relations}{\mathrel}
626 \fdsy@DeclareSymbol{\succ}{relations}{\mathrel}
627 \fdsy@DeclareSymbol{\preceq}{relations}{\mathrel}
628 \fdsy@DeclareSymbol{\succeq}{relations}{\mathrel}
629 \fdsy@DeclareSymbol{\preccurlyeq}{relations}{\mathrel}
630 \fdsy@DeclareSymbol{\succcurlyeq}{relations}{\mathrel}
631 \fdsy@DeclareSymbol{\preceqq}{relations}{\mathrel}
632 \fdsy@DeclareSymbol{\succeqq}{relations}{\mathrel}
633 \fdsy@DeclareSymbol{\precsim}{relations}{\mathrel}
634 \fdsy@DeclareSymbol{\succsim}{relations}{\mathrel}
635 \fdsy@DeclareSymbol{\precapprox}{relations}{\mathrel}
636 \fdsy@DeclareSymbol{\succapprox}{relations}{\mathrel}
637 \fdsy@DeclareSymbol{\lessdot}{relations}{\mathrel}
638 \fdsy@DeclareSymbol{\gtrdot}{relations}{\mathrel}
639 \fdsy@DeclareSymbol{\leqdot}{relations}{\mathrel}
640 \fdsy@DeclareSymbol{\geqdot}{relations}{\mathrel}
641 \fdsy@DeclareSymbol{\leqslantdot}{relations}{\mathrel}
642    \fdsy@DeclareAlias{\lesdot}{relations}{\mathrel}
643 \fdsy@DeclareSymbol{\geqslantdot}{relations}{\mathrel}
```

```
644   \fdsy@DeclareAlias{\gesdot}{relations}{\mathrel}
645 \fdsy@DeclareSymbol{\eqslantless}{relations}{\mathrel}
646 \fdsy@DeclareSymbol{\eqslantgtr}{relations}{\mathrel}
647 \fdsy@DeclareSymbol{\curlyeqprec}{relations}{\mathrel}
648 \fdsy@DeclareSymbol{\curlyeqsucc}{relations}{\mathrel}
649 \fdsy@DeclareSymbol{\nequal}{relations}{\mathrel}
650   \fdsy@DeclareAlias{\neq}{relations}{\mathrel}
651   \fdsy@DeclareAlias{\ne}{relations}{\mathrel}
652 \fdsy@DeclareSymbol{\nequiv}{relations}{\mathrel}
653 \fdsy@DeclareSymbol{\nsim}{relations}{\mathrel}
654 \fdsy@DeclareSymbol{\nbacksim}{relations}{\mathrel}
655 \fdsy@DeclareSymbol{\napprox}{relations}{\mathrel}
656 \fdsy@DeclareSymbol{\ntriplesim}{relations}{\mathrel}
657   \fdsy@DeclareAlias{\napproxident}{relations}{\mathrel}
658 \fdsy@DeclareSymbol{\nsimeq}{relations}{\mathrel}
659   \fdsy@DeclareAlias{\nsime}{relations}{\mathrel}
660 \fdsy@DeclareSymbol{\nbacksimeq}{relations}{\mathrel}
661 \fdsy@DeclareSymbol{\neqsim}{relations}{\mathrel}
662 \fdsy@DeclareSymbol{\ncong}{relations}{\mathrel}
663 \fdsy@DeclareSymbol{\nbackcong}{relations}{\mathrel}
664 \fdsy@DeclareSymbol{\napproxeq}{relations}{\mathrel}
665 \fdsy@DeclareSymbol{\nbumpeq}{relations}{\mathrel}
666 \fdsy@DeclareSymbol{\nbumpeqq}{relations}{\mathrel}
667 \fdsy@DeclareSymbol{\nBumpeq}{relations}{\mathrel}
668 \fdsy@DeclareSymbol{\ndoteq}{relations}{\mathrel}
669 \fdsy@DeclareSymbol{\neqdot}{relations}{\mathrel}
670 \fdsy@DeclareSymbol{\nDoteq}{relations}{\mathrel}
671 \fdsy@DeclareSymbol{\nfallingdotseq}{relations}{\mathrel}
672 \fdsy@DeclareSymbol{\nrisingdotseq}{relations}{\mathrel}
673 \fdsy@DeclareSymbol{\nsmile}{relations}{\mathrel}
674 \fdsy@DeclareSymbol{\nfrown}{relations}{\mathrel}
675 \fdsy@DeclareSymbol{\nsmilefrown}{relations}{\mathrel}
676   \fdsy@DeclareAlias{\nasymp}{relations}{\mathrel}
677 \fdsy@DeclareSymbol{\nfrownsmile}{relations}{\mathrel}
678   \fdsy@DeclareAlias{\nclosure}{relations}{\mathrel}
679 \fdsy@DeclareSymbol{\nsmileeq}{relations}{\mathrel}
680 \fdsy@DeclareSymbol{\nfrowneq}{relations}{\mathrel}
681   \fdsy@DeclareAlias{\narceq}{relations}{\mathrel}
682 \fdsy@DeclareSymbol{\neqcirc}{relations}{\mathrel}
683 \fdsy@DeclareSymbol{\ncirceq}{relations}{\mathrel}
684 \fdsy@DeclareSymbol{\nwedgeq}{relations}{\mathrel}
685   \fdsy@DeclareAlias{\nhateq}{relations}{\mathrel}
686 \fdsy@DeclareSymbol{\nveeeq}{relations}{\mathrel}
687 \fdsy@DeclareSymbol{\nstareq}{relations}{\mathrel}
688 \fdsy@DeclareSymbol{\ntriangleeq}{relations}{\mathrel}
```

```
689 \fdsy@DeclareSymbol{\nin}{relations}{\mathrel}
690   \fdsy@DeclareAlias{\notin}{relations}{\mathrel}
691 \fdsy@DeclareSymbol{\nowns}{relations}{\mathrel}
692   \fdsy@DeclareAlias{\nni}{relations}{\mathrel}
693 \fdsy@DeclareSymbol{\nless}{relations}{\mathrel}
694 \fdsy@DeclareSymbol{\ngtr}{relations}{\mathrel}
695 \fdsy@DeclareSymbol{\nleq}{relations}{\mathrel}
696 \fdsy@DeclareSymbol{\ngeq}{relations}{\mathrel}
697 \fdsy@DeclareSymbol{\nleqslant}{relations}{\mathrel}
698 \fdsy@DeclareSymbol{\ngeqslant}{relations}{\mathrel}
699 \fdsy@DeclareSymbol{\nleqq}{relations}{\mathrel}
700 \fdsy@DeclareSymbol{\ngeqq}{relations}{\mathrel}
701 \fdsy@DeclareSymbol{\nlesssim}{relations}{\mathrel}
702 \fdsy@DeclareSymbol{\ngtrsim}{relations}{\mathrel}
703 \fdsy@DeclareSymbol{\nlessapprox}{relations}{\mathrel}
704 \fdsy@DeclareSymbol{\ngtrapprox}{relations}{\mathrel}
705 \fdsy@DeclareSymbol{\nlessgtr}{relations}{\mathrel}
706 \fdsy@DeclareSymbol{\ngtrless}{relations}{\mathrel}
707 \fdsy@DeclareSymbol{\nlesseqgtr}{relations}{\mathrel}
708 \fdsy@DeclareSymbol{\ngtreqless}{relations}{\mathrel}
709 \fdsy@DeclareSymbol{\nlesseqqgtr}{relations}{\mathrel}
710 \fdsy@DeclareSymbol{\ngtreqqless}{relations}{\mathrel}
711 \fdsy@DeclareSymbol{\nlesseqslantgtr}{relations}{\mathrel}
712   \fdsy@DeclareAlias{\nlesg}{relations}{\mathrel}
713   \fdsy@DeclareAlias{\nlesseqgtrslant}{relations}{\mathrel}
714 \fdsy@DeclareSymbol{\ngtreqslantless}{relations}{\mathrel}
715   \fdsy@DeclareAlias{\ngesl}{relations}{\mathrel}
716   \fdsy@DeclareAlias{\ngtreqlessslant}{relations}{\mathrel}
717 \fdsy@DeclareSymbol{\nll}{relations}{\mathrel}
718 \fdsy@DeclareSymbol{\ngg}{relations}{\mathrel}
719 \fdsy@DeclareSymbol{\nlll}{relations}{\mathrel}
720 \fdsy@DeclareSymbol{\nggg}{relations}{\mathrel}
721 \fdsy@DeclareSymbol{\nlessclosed}{relations}{\mathrel}
722   \fdsy@DeclareAlias{\ntriangleleft}{relations}{\mathrel}
723 \fdsy@DeclareSymbol{\ngtrclosed}{relations}{\mathrel}
724   \fdsy@DeclareAlias{\ntriangleright}{relations}{\mathrel}
725 \fdsy@DeclareSymbol{\nleqclosed}{relations}{\mathrel}
726   \fdsy@DeclareAlias{\ntrianglelefteq}{relations}{\mathrel}
727 \fdsy@DeclareSymbol{\ngeqclosed}{relations}{\mathrel}
728   \fdsy@DeclareAlias{\ntrianglerighteq}{relations}{\mathrel}
729 \fdsy@DeclareSymbol{\nlesscc}{relations}{\mathrel}
730   \fdsy@DeclareAlias{\nltcc}{relations}{\mathrel}
731 \fdsy@DeclareSymbol{\ngtrcc}{relations}{\mathrel}
732   \fdsy@DeclareAlias{\ngtcc}{relations}{\mathrel}
733 \fdsy@DeclareSymbol{\nleqslcc}{relations}{\mathrel}
```

```
734    \fdsy@DeclareAlias{\nlescc}{relations}{\mathrel}
735 \fdsy@DeclareSymbol{\ngeqslcc}{relations}{\mathrel}
736    \fdsy@DeclareAlias{\ngescc}{relations}{\mathrel}
737 \fdsy@DeclareSymbol{\nsqsubset}{relations}{\mathrel}
738 \fdsy@DeclareSymbol{\nsqsupset}{relations}{\mathrel}
739 \fdsy@DeclareSymbol{\nsqsubseteq}{relations}{\mathrel}
740 \fdsy@DeclareSymbol{\nsqsupseteq}{relations}{\mathrel}
741 \fdsy@DeclareSymbol{\nsqsubseteqq}{relations}{\mathrel}
742 \fdsy@DeclareSymbol{\nsqsupseteqq}{relations}{\mathrel}
743 \fdsy@DeclareSymbol{\nSqsubset}{relations}{\mathrel}
744 \fdsy@DeclareSymbol{\nSqsupset}{relations}{\mathrel}
745 \fdsy@DeclareSymbol{\nsubset}{relations}{\mathrel}
746 \fdsy@DeclareSymbol{\nsupset}{relations}{\mathrel}
747 \fdsy@DeclareSymbol{\nsubseteq}{relations}{\mathrel}
748 \fdsy@DeclareSymbol{\nsupseteq}{relations}{\mathrel}
749 \fdsy@DeclareSymbol{\nsubseteqq}{relations}{\mathrel}
750 \fdsy@DeclareSymbol{\nsupseteqq}{relations}{\mathrel}
751 \fdsy@DeclareSymbol{\nSubset}{relations}{\mathrel}
752 \fdsy@DeclareSymbol{\nSupset}{relations}{\mathrel}
753 \fdsy@DeclareSymbol{\nprec}{relations}{\mathrel}
754 \fdsy@DeclareSymbol{\nsucc}{relations}{\mathrel}
755 \fdsy@DeclareSymbol{\npreceq}{relations}{\mathrel}
756 \fdsy@DeclareSymbol{\nsucceq}{relations}{\mathrel}
757 \fdsy@DeclareSymbol{\npreccurlyeq}{relations}{\mathrel}
758 \fdsy@DeclareSymbol{\nsucccurlyeq}{relations}{\mathrel}
759 \fdsy@DeclareSymbol{\npreceqq}{relations}{\mathrel}
760 \fdsy@DeclareSymbol{\nsucceqq}{relations}{\mathrel}
761 \fdsy@DeclareSymbol{\nprecsim}{relations}{\mathrel}
762 \fdsy@DeclareSymbol{\nsuccsim}{relations}{\mathrel}
763 \fdsy@DeclareSymbol{\nprecapprox}{relations}{\mathrel}
764 \fdsy@DeclareSymbol{\nsuccapprox}{relations}{\mathrel}
765 \fdsy@DeclareSymbol{\nlessdot}{relations}{\mathrel}
766 \fdsy@DeclareSymbol{\ngtrdot}{relations}{\mathrel}
767 \fdsy@DeclareSymbol{\nleqdot}{relations}{\mathrel}
768 \fdsy@DeclareSymbol{\ngeqdot}{relations}{\mathrel}
769 \fdsy@DeclareSymbol{\nleqslantdot}{relations}{\mathrel}
770    \fdsy@DeclareAlias{\nlesdot}{relations}{\mathrel}
771 \fdsy@DeclareSymbol{\ngeqslantdot}{relations}{\mathrel}
772    \fdsy@DeclareAlias{\ngesdot}{relations}{\mathrel}
773 \fdsy@DeclareSymbol{\neqslantless}{relations}{\mathrel}
774 \fdsy@DeclareSymbol{\neqslantgtr}{relations}{\mathrel}
775 \fdsy@DeclareSymbol{\ncurlyeqprec}{relations}{\mathrel}
776 \fdsy@DeclareSymbol{\ncurlyeqsucc}{relations}{\mathrel}
777 \fdsy@DeclareSymbol{\simneqq}{relations}{\mathrel}
778 \fdsy@DeclareSymbol{\backsimneqq}{relations}{\mathrel}
```

```
779 \fdsy@DeclareSymbol{\lneq}{relations}{\mathrel}
780 \fdsy@DeclareSymbol{\gneq}{relations}{\mathrel}
781 \fdsy@DeclareSymbol{\lneqq}{relations}{\mathrel}
782   \fdsy@DeclareAlias{\lvertneqq}{relations}{\mathrel}
783 \fdsy@DeclareSymbol{\gneqq}{relations}{\mathrel}
784   \fdsy@DeclareAlias{\gvertneqq}{relations}{\mathrel}
785 \fdsy@DeclareSymbol{\lnsim}{relations}{\mathrel}
786 \fdsy@DeclareSymbol{\gnsim}{relations}{\mathrel}
787 \fdsy@DeclareSymbol{\lnapprox}{relations}{\mathrel}
788 \fdsy@DeclareSymbol{\gnapprox}{relations}{\mathrel}
789 \fdsy@DeclareSymbol{\sqsubsetneq}{relations}{\mathrel}
790 \fdsy@DeclareSymbol{\sqsupsetneq}{relations}{\mathrel}
791 \fdsy@DeclareSymbol{\sqsubsetneqq}{relations}{\mathrel}
792 \fdsy@DeclareSymbol{\sqsupsetneqq}{relations}{\mathrel}
793 \fdsy@DeclareSymbol{\subsetneq}{relations}{\mathrel}
794   \fdsy@DeclareAlias{\varsubsetneq}{relations}{\mathrel}
795 \fdsy@DeclareSymbol{\supsetneq}{relations}{\mathrel}
796   \fdsy@DeclareAlias{\varsupsetneq}{relations}{\mathrel}
797 \fdsy@DeclareSymbol{\subsetneqq}{relations}{\mathrel}
798   \fdsy@DeclareAlias{\varsubsetneqq}{relations}{\mathrel}
799 \fdsy@DeclareSymbol{\supsetneqq}{relations}{\mathrel}
800   \fdsy@DeclareAlias{\varsupsetneqq}{relations}{\mathrel}
801 \fdsy@DeclareSymbol{\precneq}{relations}{\mathrel}
802 \fdsy@DeclareSymbol{\succneq}{relations}{\mathrel}
803 \fdsy@DeclareSymbol{\precneqq}{relations}{\mathrel}
804 \fdsy@DeclareSymbol{\succneqq}{relations}{\mathrel}
805 \fdsy@DeclareSymbol{\precnsim}{relations}{\mathrel}
806 \fdsy@DeclareSymbol{\succnsim}{relations}{\mathrel}
807 \fdsy@DeclareSymbol{\precnapprox}{relations}{\mathrel}
808 \fdsy@DeclareSymbol{\succnapprox}{relations}{\mathrel}
```

FdSymbolC: arrows and turnstile symbols

```
809 \fdsy@setslot{0}
810 \fdsy@DeclareSymbol{\rightarrow}{arrows}{\mathrel}
811   \fdsy@DeclareAlias{\to}{arrows}{\mathrel}
812 \fdsy@DeclareSymbol{\uparrow}{arrows}{\mathrel}
813 \fdsy@DeclareSymbol{\leftarrow}{arrows}{\mathrel}
814 \fdsy@DeclareAlias{\gets}{arrows}{\mathrel}
815 \fdsy@DeclareSymbol{\downarrow}{arrows}{\mathrel}
816 \fdsy@DeclareSymbol{\nearrow}{arrows}{\mathrel}
817 \fdsy@DeclareSymbol{\nwarrow}{arrows}{\mathrel}
818 \fdsy@DeclareSymbol{\swarrow}{arrows}{\mathrel}
819 \fdsy@DeclareSymbol{\searrow}{arrows}{\mathrel}
820 \fdsy@DeclareSymbol{\Rightarrow}{arrows}{\mathrel}
821 \fdsy@DeclareSymbol{\Uparrow}{arrows}{\mathrel}
822 \fdsy@DeclareSymbol{\Leftarrow}{arrows}{\mathrel}
```

```
823 \fdsy@DeclareSymbol{\Downarrow}{arrows}{\mathrel}
824 \fdsy@DeclareSymbol{\Nearrow}{arrows}{\mathrel}
825 \fdsy@DeclareSymbol{\Nwarrow}{arrows}{\mathrel}
826 \fdsy@DeclareSymbol{\Swarrow}{arrows}{\mathrel}
827 \fdsy@DeclareSymbol{\Searrow}{arrows}{\mathrel}
828 \fdsy@DeclareSymbol{\leftrightarrow}{arrows}{\mathrel}
829 \fdsy@DeclareSymbol{\updownarrow}{arrows}{\mathrel}
830 \fdsy@DeclareSymbol{\neswarrow}{arrows}{\mathrel}
831 \fdsy@DeclareSymbol{\nwsearrow}{arrows}{\mathrel}
832 \fdsy@DeclareSymbol{\Leftrightarrow}{arrows}{\mathrel}
833 \fdsy@DeclareSymbol{\Updownarrow}{arrows}{\mathrel}
834 \fdsy@DeclareSymbol{\Neswarrow}{arrows}{\mathrel}
835 \fdsy@DeclareSymbol{\Nwsearrow}{arrows}{\mathrel}
836 \fdsy@DeclareSymbol{\twoheadrightarrow}{arrows}{\mathrel}
837 \fdsy@DeclareSymbol{\twoheaduparrow}{arrows}{\mathrel}
838 \fdsy@DeclareSymbol{\twoheadleftarrow}{arrows}{\mathrel}
839 \fdsy@DeclareSymbol{\twoheaddownarrow}{arrows}{\mathrel}
840 \fdsy@DeclareSymbol{\twoheadnearrow}{arrows}{\mathrel}
841 \fdsy@DeclareSymbol{\twoheadnwarrow}{arrows}{\mathrel}
842 \fdsy@DeclareSymbol{\twoheadswarrow}{arrows}{\mathrel}
843 \fdsy@DeclareSymbol{\twoheadsearrow}{arrows}{\mathrel}
844 \fdsy@DeclareSymbol{\rightarrowtail}{arrows}{\mathrel}
845 \fdsy@DeclareSymbol{\uparrowtail}{arrows}{\mathrel}
846 \fdsy@DeclareSymbol{\leftarrowtail}{arrows}{\mathrel}
847 \fdsy@DeclareSymbol{\downarrowtail}{arrows}{\mathrel}
848 \fdsy@DeclareSymbol{\nearrowtail}{arrows}{\mathrel}
849 \fdsy@DeclareSymbol{\nwarrowtail}{arrows}{\mathrel}
850 \fdsy@DeclareSymbol{\swarrowtail}{arrows}{\mathrel}
851 \fdsy@DeclareSymbol{\searrowtail}{arrows}{\mathrel}
852 \fdsy@DeclareSymbol{\rightmapsto}{arrows}{\mathrel}
853   \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
854 \fdsy@DeclareSymbol{\upmapsto}{arrows}{\mathrel}
855   \fdsy@DeclareAlias{\mapsup}{arrows}{\mathrel}
856 \fdsy@DeclareSymbol{\leftmapsto}{arrows}{\mathrel}
857   \fdsy@DeclareAlias{\mapsfrom}{arrows}{\mathrel}
858 \fdsy@DeclareSymbol{\downmapsto}{arrows}{\mathrel}
859   \fdsy@DeclareAlias{\mapsdown}{arrows}{\mathrel}
860 \fdsy@DeclareSymbol{\Rightmapsto}{arrows}{\mathrel}
861   \fdsy@DeclareAlias{\Mapsto}{arrows}{\mathrel}
862 \fdsy@DeclareSymbol{\Upmapsto}{arrows}{\mathrel}
863   \fdsy@DeclareAlias{\Mapsup}{arrows}{\mathrel}
864 \fdsy@DeclareSymbol{\Leftmapsto}{arrows}{\mathrel}
865   \fdsy@DeclareAlias{\Mapsfrom}{arrows}{\mathrel}
866 \fdsy@DeclareSymbol{\Downmapsto}{arrows}{\mathrel}
867   \fdsy@DeclareAlias{\Mapsdown}{arrows}{\mathrel}
```

```
868 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
869   \fdsy@DeclareAlias{\lhookrightarrow}{arrows}{\mathrel}
870 \fdsy@DeclareSymbol{\hookuparrow}{arrows}{\mathrel}
871   \fdsy@DeclareAlias{\lhookuparrow}{arrows}{\mathrel}
872 \fdsy@DeclareSymbol{\varhookleftarrow}{arrows}{\mathrel}
873   \fdsy@DeclareAlias{\lhookleftarrow}{arrows}{\mathrel}
874 \fdsy@DeclareSymbol{\varhookdownarrow}{arrows}{\mathrel}
875   \fdsy@DeclareAlias{\lhookdownarrow}{arrows}{\mathrel}
876 \fdsy@DeclareSymbol{\varhooknearrow}{arrows}{\mathrel}
877   \fdsy@DeclareAlias{\lhooknearrow}{arrows}{\mathrel}
878 \fdsy@DeclareSymbol{\hooknwarrow}{arrows}{\mathrel}
879   \fdsy@DeclareAlias{\hknwarrow}{arrows}{\mathrel}
880   \fdsy@DeclareAlias{\lhooknwarrow}{arrows}{\mathrel}
881 \fdsy@DeclareSymbol{\varhookswarrow}{arrows}{\mathrel}
882   \fdsy@DeclareAlias{\lhookswarrow}{arrows}{\mathrel}
883 \fdsy@DeclareSymbol{\hooksearrow}{arrows}{\mathrel}
884   \fdsy@DeclareAlias{\hksearrow}{arrows}{\mathrel}
885   \fdsy@DeclareAlias{\lhooksearrow}{arrows}{\mathrel}
886 \fdsy@DeclareSymbol{\varhookrightarrow}{arrows}{\mathrel}
887   \fdsy@DeclareAlias{\rhookrightarrow}{arrows}{\mathrel}
888 \fdsy@DeclareSymbol{\varhookuparrow}{arrows}{\mathrel}
889   \fdsy@DeclareAlias{\rhookuparrow}{arrows}{\mathrel}
890 \fdsy@DeclareSymbol{\hookleftarrow}{arrows}{\mathrel}
891   \fdsy@DeclareAlias{\rhookleftarrow}{arrows}{\mathrel}
892 \fdsy@DeclareSymbol{\hookdownarrow}{arrows}{\mathrel}
893   \fdsy@DeclareAlias{\rhookdownarrow}{arrows}{\mathrel}
894 \fdsy@DeclareSymbol{\hooknearrow}{arrows}{\mathrel}
895   \fdsy@DeclareAlias{\hknearrow}{arrows}{\mathrel}
896   \fdsy@DeclareAlias{\rhooknearrow}{arrows}{\mathrel}
897 \fdsy@DeclareSymbol{\varhooknwarrow}{arrows}{\mathrel}
898   \fdsy@DeclareAlias{\rhooknwarrow}{arrows}{\mathrel}
899 \fdsy@DeclareSymbol{\hookswarrow}{arrows}{\mathrel}
900   \fdsy@DeclareAlias{\hkswarrow}{arrows}{\mathrel}
901   \fdsy@DeclareAlias{\rhookswarrow}{arrows}{\mathrel}
902 \fdsy@DeclareSymbol{\varhooksearrow}{arrows}{\mathrel}
903   \fdsy@DeclareAlias{\rhooksearrow}{arrows}{\mathrel}
904 \fdsy@DeclareSymbol{\rightharpoonup}{arrows}{\mathrel}
905 \fdsy@DeclareSymbol{\upharpoonleft}{arrows}{\mathrel}
906 \fdsy@DeclareSymbol{\leftharpoondown}{arrows}{\mathrel}
907 \fdsy@DeclareSymbol{\downharpoonright}{arrows}{\mathrel}
908 \fdsy@DeclareSymbol{\neharpoonnw}{arrows}{\mathrel}
909 \fdsy@DeclareSymbol{\nwharpoonsw}{arrows}{\mathrel}
910 \fdsy@DeclareSymbol{\swharpoonse}{arrows}{\mathrel}
911 \fdsy@DeclareSymbol{\seharpoonne}{arrows}{\mathrel}
912 \fdsy@DeclareSymbol{\rightharpoondown}{arrows}{\mathrel}
```

```
913 \fdsy@DeclareSymbol{\upharpoonright}{arrows}{\mathrel}
914   \fdsy@DeclareAlias{\restriction}{arrows}{\mathrel}
915 \fdsy@DeclareSymbol{\leftharpoonup}{arrows}{\mathrel}
916 \fdsy@DeclareSymbol{\downharpoonleft}{arrows}{\mathrel}
917 \fdsy@DeclareSymbol{\neharpoonse}{arrows}{\mathrel}
918 \fdsy@DeclareSymbol{\nwharpoonne}{arrows}{\mathrel}
919 \fdsy@DeclareSymbol{\swharpoonnw}{arrows}{\mathrel}
920 \fdsy@DeclareSymbol{\seharpoonsw}{arrows}{\mathrel}
921 \fdsy@DeclareSymbol{\leftrightharpoonupdown}{arrows}{\mathrel}
922 \fdsy@DeclareSymbol{\updownharpoonleftright}{arrows}{\mathrel}
923 \fdsy@DeclareSymbol{\neswharpoonnwse}{arrows}{\mathrel}
924 \fdsy@DeclareSymbol{\nwseharpoonnesw}{arrows}{\mathrel}
925 \fdsy@DeclareSymbol{\leftrightharpoondownup}{arrows}{\mathrel}
926 \fdsy@DeclareSymbol{\updownharpoonrightleft}{arrows}{\mathrel}
927 \fdsy@DeclareSymbol{\neswharpoonsenw}{arrows}{\mathrel}
928 \fdsy@DeclareSymbol{\nwseharpoonswne}{arrows}{\mathrel}
929 \fdsy@DeclareSymbol{\rightleftharpoons}{arrows}{\mathrel}
930 \fdsy@DeclareSymbol{\updownharpoons}{arrows}{\mathrel}
931   \fdsy@DeclareAlias{\updownharpoonsleftright}{arrows}{\mathrel}
932 \fdsy@DeclareSymbol{\neswharpoons}{arrows}{\mathrel}
933 \fdsy@DeclareSymbol{\senwharpoons}{arrows}{\mathrel}
934 \fdsy@DeclareSymbol{\leftrightharpoons}{arrows}{\mathrel}
935 \fdsy@DeclareSymbol{\downupharpoons}{arrows}{\mathrel}
936   \fdsy@DeclareAlias{\downupharpoonsleftright}{arrows}{\mathrel}
937 \fdsy@DeclareSymbol{\swneharpoons}{arrows}{\mathrel}
938 \fdsy@DeclareSymbol{\nwseharpoons}{arrows}{\mathrel}
939 \fdsy@DeclareSymbol{\rightbkarrow}{arrows}{\mathrel}
940   \fdsy@DeclareAlias{\dasharrow}{arrows}{\mathrel}
941   \fdsy@DeclareAlias{\dashrightarrow}{arrows}{\mathrel}
942 \fdsy@DeclareSymbol{\upbkarrow}{arrows}{\mathrel}
943 \fdsy@DeclareSymbol{\leftbkarrow}{arrows}{\mathrel}
944   \fdsy@DeclareAlias{\dashleftarrow}{arrows}{\mathrel}
945 \fdsy@DeclareSymbol{\downbkarrow}{arrows}{\mathrel}
946 \fdsy@DeclareSymbol{\nebkarrow}{arrows}{\mathrel}
947 \fdsy@DeclareSymbol{\nwbkarrow}{arrows}{\mathrel}
948 \fdsy@DeclareSymbol{\swbkarrow}{arrows}{\mathrel}
949 \fdsy@DeclareSymbol{\sebkarrow}{arrows}{\mathrel}
950 \fdsy@DeclareSymbol{\rightspoon}{arrows}{\mathrel}
951   \fdsy@DeclareAlias{\multimap}{arrows}{\mathrel}
952 \fdsy@DeclareSymbol{\upspoon}{arrows}{\mathrel}
953   \fdsy@DeclareAlias{\cirmid}{arrows}{\mathrel}
954 \fdsy@DeclareSymbol{\leftspoon}{arrows}{\mathrel}
955   \fdsy@DeclareAlias{\multimapinv}{arrows}{\mathrel}
956 \fdsy@DeclareSymbol{\downspoon}{arrows}{\mathrel}
957   \fdsy@DeclareAlias{\midcir}{arrows}{\mathrel}
```

```
958 \fdsy@DeclareSymbol{\rightblackspoon}{arrows}{\mathrel}
959 \fdsy@DeclareSymbol{\upblackspoon}{arrows}{\mathrel}
960 \fdsy@DeclareSymbol{\leftblackspoon}{arrows}{\mathrel}
961 \fdsy@DeclareSymbol{\downblackspoon}{arrows}{\mathrel}
962 \fdsy@DeclareSymbol{\leftrightspoon}{arrows}{\mathrel}
963   \fdsy@DeclareAlias{\dualmap}{arrows}{\mathrel}
964 \fdsy@DeclareSymbol{\leftrightblackspoon}{arrows}{\mathrel}
965 \fdsy@DeclareSymbol{\blackwhitespoon}{arrows}{\mathrel}
966   \fdsy@DeclareAlias{\imageof}{arrows}{\mathrel}
967 \fdsy@DeclareSymbol{\whiteblackspoon}{arrows}{\mathrel}
968   \fdsy@DeclareAlias{\origof}{arrows}{\mathrel}
969 \fdsy@DeclareSymbol{\rightpitchfork}{arrows}{\mathrel}
970 \fdsy@DeclareSymbol{\uppitchfork}{arrows}{\mathrel}
971   \fdsy@DeclareAlias{\pitchfork}{arrows}{\mathrel}
972 \fdsy@DeclareSymbol{\leftpitchfork}{arrows}{\mathrel}
973 \fdsy@DeclareSymbol{\downpitchfork}{arrows}{\mathrel}
974 \fdsy@DeclareSymbol{\rightrightarrows}{arrows}{\mathrel}
975 \fdsy@DeclareSymbol{\upuparrows}{arrows}{\mathrel}
976 \fdsy@DeclareSymbol{\leftleftarrows}{arrows}{\mathrel}
977 \fdsy@DeclareSymbol{\downdownarrows}{arrows}{\mathrel}
978 \fdsy@DeclareSymbol{\nenearrows}{arrows}{\mathrel}
979 \fdsy@DeclareSymbol{\nwnwarrows}{arrows}{\mathrel}
980 \fdsy@DeclareSymbol{\swswarrows}{arrows}{\mathrel}
981 \fdsy@DeclareSymbol{\sesearrows}{arrows}{\mathrel}
982 \fdsy@DeclareSymbol{\rightleftarrows}{arrows}{\mathrel}
983 \fdsy@DeclareSymbol{\updownarrows}{arrows}{\mathrel}
984 \fdsy@DeclareSymbol{\neswarrows}{arrows}{\mathrel}
985 \fdsy@DeclareSymbol{\nwsearrows}{arrows}{\mathrel}
986 \fdsy@DeclareSymbol{\leftrightarrows}{arrows}{\mathrel}
987 \fdsy@DeclareSymbol{\downuparrows}{arrows}{\mathrel}
988 \fdsy@DeclareSymbol{\swnearrows}{arrows}{\mathrel}
989 \fdsy@DeclareSymbol{\senwarrows}{arrows}{\mathrel}
990 \fdsy@DeclareSymbol{\rightwavearrow}{arrows}{\mathrel}
991   \fdsy@DeclareAlias{\leadsto}{arrows}{\mathrel}
992   \fdsy@DeclareAlias{\rightsquigarrow}{arrows}{\mathrel}
993   \fdsy@DeclareAlias{\rightcurvedarrow}{arrows}{\mathrel}
994   \fdsy@DeclareAlias{\rightlsquigarrow}{arrows}{\mathrel}
995 \fdsy@DeclareSymbol{\varupwavearrow}{arrows}{\mathrel}
996   \fdsy@DeclareAlias{\uplsquigarrow}{arrows}{\mathrel}
997 \fdsy@DeclareSymbol{\varleftwavearrow}{arrows}{\mathrel}
998   \fdsy@DeclareAlias{\leftlsquigarrow}{arrows}{\mathrel}
999 \fdsy@DeclareSymbol{\downwavearrow}{arrows}{\mathrel}
1000   \fdsy@DeclareAlias{\downlsquigarrow}{arrows}{\mathrel}
1001 \fdsy@DeclareSymbol{\varrightwavearrow}{arrows}{\mathrel}
1002   \fdsy@DeclareAlias{\rightrsquigarrow}{arrows}{\mathrel}
```

```
1003 \fdsy@DeclareSymbol{\upwavearrow}{arrows}{\mathrel}
1004   \fdsy@DeclareAlias{\uprsquigarrow}{arrows}{\mathrel}
1005 \fdsy@DeclareSymbol{\leftwavearrow}{arrows}{\mathrel}
1006   \fdsy@DeclareAlias{\leftsquigarrow}{arrows}{\mathrel}
1007   \fdsy@DeclareAlias{\leftcurvedarrow}{arrows}{\mathrel}
1008   \fdsy@DeclareAlias{\leftrsquigarrow}{arrows}{\mathrel}
1009 \fdsy@DeclareSymbol{\vardownwavearrow}{arrows}{\mathrel}
1010   \fdsy@DeclareAlias{\downrsquigarrow}{arrows}{\mathrel}
1011 \fdsy@DeclareSymbol{\leftrightwavearrow}{arrows}{\mathrel}
1012   \fdsy@DeclareAlias{\leftrightsquigarrow}{arrows}{\mathrel}
1013 \fdsy@DeclareSymbol{\updownwavearrow}{arrows}{\mathrel}
1014   \fdsy@DeclareAlias{\updownsquigarrow}{arrows}{\mathrel}
1015 \fdsy@DeclareSymbol{\varleftrightwavearrow}{arrows}{\mathrel}
1016   \fdsy@DeclareAlias{\rightleftsquigarrow}{arrows}{\mathrel}
1017 \fdsy@DeclareSymbol{\varupdownwavearrow}{arrows}{\mathrel}
1018   \fdsy@DeclareAlias{\downupsquigarrow}{arrows}{\mathrel}
1019 \fdsy@DeclareSymbol{\cwoverarcarrow}{arrows}{\mathrel}
1020   \fdsy@DeclareAlias{\curvearrowright}{arrows}{\mathrel}
1021   \fdsy@DeclareAlias{\rightlcurvearrow}{arrows}{\mathrel}
1022 \fdsy@DeclareSymbol{\cwleftarcarrow}{arrows}{\mathrel}
1023   \fdsy@DeclareAlias{\uplcurvearrow}{arrows}{\mathrel}
1024 \fdsy@DeclareSymbol{\cwunderarcarrow}{arrows}{\mathrel}
1025   \fdsy@DeclareAlias{\leftlcurvearrow}{arrows}{\mathrel}
1026 \fdsy@DeclareSymbol{\cwrightarcarrow}{arrows}{\mathrel}
1027   \fdsy@DeclareAlias{\downlcurvearrow}{arrows}{\mathrel}
1028 \fdsy@DeclareSymbol{\cwnwarcarrow}{arrows}{\mathrel}
1029   \fdsy@DeclareAlias{\rightupcurvedarrow}{arrows}{\mathrel}
1030   \fdsy@DeclareAlias{\nelcurvearrow}{arrows}{\mathrel}
1031 \fdsy@DeclareSymbol{\cwswarcarrow}{arrows}{\mathrel}
1032   \fdsy@DeclareAlias{\upleftcurvedarrow}{arrows}{\mathrel}
1033   \fdsy@DeclareAlias{\nwlcurvearrow}{arrows}{\mathrel}
1034 \fdsy@DeclareSymbol{\cwsearcarrow}{arrows}{\mathrel}
1035   \fdsy@DeclareAlias{\leftdowncurvedarrow}{arrows}{\mathrel}
1036   \fdsy@DeclareAlias{\swlcurvearrow}{arrows}{\mathrel}
1037 \fdsy@DeclareSymbol{\cwnearcarrow}{arrows}{\mathrel}
1038   \fdsy@DeclareAlias{\downrightcurvedarrow}{arrows}{\mathrel}
1039   \fdsy@DeclareAlias{\selcurvearrow}{arrows}{\mathrel}
1040 \fdsy@DeclareSymbol{\acwunderarcarrow}{arrows}{\mathrel}
1041   \fdsy@DeclareAlias{\rightrcurvearrow}{arrows}{\mathrel}
1042 \fdsy@DeclareSymbol{\acwrightarcarrow}{arrows}{\mathrel}
1043   \fdsy@DeclareAlias{\uprcurvearrow}{arrows}{\mathrel}
1044 \fdsy@DeclareSymbol{\acwoverarcarrow}{arrows}{\mathrel}
1045   \fdsy@DeclareAlias{\curvearrowleft}{arrows}{\mathrel}
1046   \fdsy@DeclareAlias{\leftrcurvearrow}{arrows}{\mathrel}
1047 \fdsy@DeclareSymbol{\acwleftarcarrow}{arrows}{\mathrel}
```

```
1048    \fdsy@DeclareAlias{\downrcurvearrow}{arrows}{\mathrel}
1049 \fdsy@DeclareSymbol{\acwsearcarrow}{arrows}{\mathrel}
1050    \fdsy@DeclareAlias{\uprightcurvearrow}{arrows}{\mathrel}
1051    \fdsy@DeclareAlias{\nercurvearrow}{arrows}{\mathrel}
1052 \fdsy@DeclareSymbol{\acwnearcarrow}{arrows}{\mathrel}
1053    \fdsy@DeclareAlias{\leftupcurvedarrow}{arrows}{\mathrel}
1054    \fdsy@DeclareAlias{\nwrcurvearrow}{arrows}{\mathrel}
1055 \fdsy@DeclareSymbol{\acwnwarcarrow}{arrows}{\mathrel}
1056    \fdsy@DeclareAlias{\downleftcurvedarrow}{arrows}{\mathrel}
1057    \fdsy@DeclareAlias{\swrcurvearrow}{arrows}{\mathrel}
1058 \fdsy@DeclareSymbol{\acwswarcarrow}{arrows}{\mathrel}
1059    \fdsy@DeclareAlias{\rightdowncurvedarrow}{arrows}{\mathrel}
1060    \fdsy@DeclareAlias{\sercurvearrow}{arrows}{\mathrel}
1061 \fdsy@DeclareSymbol{\bdoverarcarrow}{arrows}{\mathrel}
1062    \fdsy@DeclareAlias{\leftrightcurvearrow}{arrows}{\mathrel}
1063 \fdsy@DeclareSymbol{\bdleftarcarrow}{arrows}{\mathrel}
1064    \fdsy@DeclareAlias{\updowncurvearrow}{arrows}{\mathrel}
1065 \fdsy@DeclareSymbol{\bdunderarcarrow}{arrows}{\mathrel}
1066    \fdsy@DeclareAlias{\rightleftcurvearrow}{arrows}{\mathrel}
1067 \fdsy@DeclareSymbol{\bdrightarcarrow}{arrows}{\mathrel}
1068    \fdsy@DeclareAlias{\downupcurvearrow}{arrows}{\mathrel}
1069 \fdsy@DeclareSymbol{\bdnwarcarrow}{arrows}{\mathrel}
1070    \fdsy@DeclareAlias{\neswcurvearrow}{arrows}{\mathrel}
1071 \fdsy@DeclareSymbol{\bdswarcarrow}{arrows}{\mathrel}
1072    \fdsy@DeclareAlias{\nwsecurvearrow}{arrows}{\mathrel}
1073 \fdsy@DeclareSymbol{\bdsearcarrow}{arrows}{\mathrel}
1074    \fdsy@DeclareAlias{\swnecurvearrow}{arrows}{\mathrel}
1075 \fdsy@DeclareSymbol{\bdnearcarrow}{arrows}{\mathrel}
1076    \fdsy@DeclareAlias{\senwcurvearrow}{arrows}{\mathrel}
1077 \fdsy@DeclareSymbol{\leftfootline}{arrows}{\mathrel}
1078 \fdsy@DeclareSymbol{\rightfootline}{arrows}{\mathrel}
1079 \fdsy@DeclareSymbol{\acwcirclearrowup}{arrows}{\mathrel}
1080 \fdsy@DeclareSymbol{\acwcirclearrowleft}{arrows}{\mathrel}
1081    \fdsy@DeclareAlias{\circlearrowleft}{arrows}{\mathrel}
1082    \fdsy@DeclareAlias{\acwopencirclearrow}{arrows}{\mathrel}
1083 \fdsy@DeclareSymbol{\acwcirclearrowdown}{arrows}{\mathrel}
1084    \fdsy@DeclareAlias{\acwgapcirclearrow}{arrows}{\mathrel}
1085 \fdsy@DeclareSymbol{\acwcirclearrowright}{arrows}{\mathrel}
1086 \fdsy@DeclareSymbol{\cwcirclearrowdown}{arrows}{\mathrel}
1087    \fdsy@DeclareAlias{\cwgapcirclearrow}{arrows}{\mathrel}
1088 \fdsy@DeclareSymbol{\cwcirclearrowright}{arrows}{\mathrel}
1089    \fdsy@DeclareAlias{\circlearrowright}{arrows}{\mathrel}
1090    \fdsy@DeclareAlias{\cwopencirclearrow}{arrows}{\mathrel}
1091 \fdsy@DeclareSymbol{\cwcirclearrowup}{arrows}{\mathrel}
1092 \fdsy@DeclareSymbol{\cwcirclearrowleft}{arrows}{\mathrel}
```

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1093 \fdsy@DeclareSymbol{\Rrightarrow}{arrows}{\mathrel}
1094 \fdsy@DeclareSymbol{\Uuparrow}{arrows}{\mathrel}
1095 \fdsy@DeclareSymbol{\Lleftarrow}{arrows}{\mathrel}
1096 \fdsy@DeclareSymbol{\Ddownarrow}{arrows}{\mathrel}
1097 \fdsy@DeclareSymbol{\longrightarrow}{arrows}{\mathrel}
1098 \fdsy@DeclareSymbol{\longleftarrow}{arrows}{\mathrel}
1099 \fdsy@DeclareSymbol{\Longrightarrow}{arrows}{\mathrel}
1100 \fdsy@DeclareSymbol{\Longleftarrow}{arrows}{\mathrel}
1101 \fdsy@DeclareSymbol{\longleftrightarrow}{arrows}{\mathrel}
1102 \fdsy@DeclareSymbol{\Longleftrightarrow}{arrows}{\mathrel}
1103 \fdsy@DeclareSymbol{\longmapsto}{arrows}{\mathrel}
1104 \fdsy@DeclareSymbol{\longmapsfrom}{arrows}{\mathrel}
1105 \fdsy@DeclareSymbol{\Longmapsto}{arrows}{\mathrel}
1106 \fdsy@DeclareSymbol{\Longmapsfrom}{arrows}{\mathrel}
1107 \fdsy@DeclareSymbol{\longrightwavearrow}{arrows}{\mathrel}
1108   \fdsy@DeclareAlias{\longleadsto}{arrows}{\mathrel}
1109   \fdsy@DeclareAlias{\longrightsquigarrow}{arrows}{\mathrel}
1110 \fdsy@DeclareSymbol{\longleftwavearrow}{arrows}{\mathrel}
1111   \fdsy@DeclareAlias{\longleftsquigarrow}{arrows}{\mathrel}
1112 \fdsy@DeclareSymbol{\longleftfootline}{arrows}{\mathrel}
1113   \fdsy@DeclareAlias{\vlongdash}{arrows}{\mathrel}
1114 \fdsy@DeclareSymbol{\longrightfootline}{arrows}{\mathrel}
1115   \fdsy@DeclareAlias{\longdashv}{arrows}{\mathrel}
1116 \fdsy@DeclareSymbol{\Lsh}{arrows}{\mathrel}
1117 \fdsy@DeclareSymbol{\Rsh}{arrows}{\mathrel}
1118 \fdsy@DeclareSymbol{\Ldsh}{arrows}{\mathrel}
1119 \fdsy@DeclareSymbol{\Rdsh}{arrows}{\mathrel}
1120 \fdsy@DeclareSymbol{\looparrowright}{arrows}{\mathrel}
1121 \fdsy@DeclareSymbol{\looparrowleft}{arrows}{\mathrel}
1122 \fdsy@setslot{224}
1123 \fdsy@DeclareSymbol{\rightvdash}{arrows}{\mathrel}
1124   \fdsy@DeclareAlias{\vdash}{arrows}{\mathrel}
1125 \fdsy@DeclareSymbol{\upvdash}{arrows}{\mathrel}
1126   \fdsy@DeclareAlias{\perp}{arrows}{\mathrel}
1127   \fdsy@DeclareAlias{\bot}{arrows}{\mathord}
1128 \fdsy@DeclareSymbol{\leftvdash}{arrows}{\mathrel}
1129   \fdsy@DeclareAlias{\dashv}{arrows}{\mathrel}
1130 \fdsy@DeclareSymbol{\downvdash}{arrows}{\mathrel}
1131   \fdsy@DeclareAlias{\top}{arrows}{\mathord}
1132 \fdsy@DeclareSymbol{\rightassert}{arrows}{\mathrel}
1133   \fdsy@DeclareAlias{\assert}{arrows}{\mathrel}
1134   \fdsy@DeclareAlias{\shortrighttack}{arrows}{\mathrel}
1135 \fdsy@DeclareSymbol{\upassert}{arrows}{\mathrel}
1136   \fdsy@DeclareAlias{\shortuptack}{arrows}{\mathrel}
1137 \fdsy@DeclareSymbol{\leftassert}{arrows}{\mathrel}
```

```
1138    \fdsy@DeclareAlias{\shortlefttack}{arrows}{\mathrel}
1139 \fdsy@DeclareSymbol{\downassert}{arrows}{\mathrel}
1140    \fdsy@DeclareAlias{\shortdowntack}{arrows}{\mathrel}
1141 \fdsy@DeclareSymbol{\rightvDash}{arrows}{\mathrel}
1142    \fdsy@DeclareAlias{\vDash}{arrows}{\mathrel}
1143 \fdsy@DeclareSymbol{\upvDash}{arrows}{\mathrel}
1144    \fdsy@DeclareAlias{\Vbar}{arrows}{\mathrel}
1145 \fdsy@DeclareSymbol{\leftvDash}{arrows}{\mathrel}
1146    \fdsy@DeclareAlias{\Dashv}{arrows}{\mathrel}
1147 \fdsy@DeclareSymbol{\downvDash}{arrows}{\mathrel}
1148    \fdsy@DeclareAlias{\barV}{arrows}{\mathrel}
1149 \fdsy@DeclareSymbol{\rightmodels}{arrows}{\mathrel}
1150    \fdsy@DeclareAlias{\models}{arrows}{\mathrel}
1151 \fdsy@DeclareSymbol{\upmodels}{arrows}{\mathrel}
1152 \fdsy@DeclareSymbol{\leftmodels}{arrows}{\mathrel}
1153 \fdsy@DeclareSymbol{\downmodels}{arrows}{\mathrel}
1154 \fdsy@DeclareSymbol{\rightVdash}{arrows}{\mathrel}
1155    \fdsy@DeclareAlias{\Vdash}{arrows}{\mathrel}
1156 \fdsy@DeclareSymbol{\upVdash}{arrows}{\mathrel}
1157 \fdsy@DeclareSymbol{\leftVdash}{arrows}{\mathrel}
1158    \fdsy@DeclareAlias{\dashV}{arrows}{\mathrel}
1159 \fdsy@DeclareSymbol{\downVdash}{arrows}{\mathrel}
1160 \fdsy@DeclareSymbol{\rightAssert}{arrows}{\mathrel}
1161 \fdsy@DeclareAlias{\Assert}{arrows}{\mathrel}
1162 \fdsy@DeclareSymbol{\upAssert}{arrows}{\mathrel}
1163    \fdsy@DeclareAlias{\vBar}{arrows}{\mathrel}
1164 \fdsy@DeclareSymbol{\leftAssert}{arrows}{\mathrel}
1165 \fdsy@DeclareSymbol{\downAssert}{arrows}{\mathrel}
1166    \fdsy@DeclareAlias{\Barv}{arrows}{\mathrel}
1167 \fdsy@DeclareSymbol{\rightVDash}{arrows}{\mathrel}
1168    \fdsy@DeclareAlias{\VDash}{arrows}{\mathrel}
1169 \fdsy@DeclareSymbol{\upVDash}{arrows}{\mathrel}
1170 \fdsy@DeclareSymbol{\leftVDash}{arrows}{\mathrel}
1171    \fdsy@DeclareAlias{\DashV}{arrows}{\mathrel}
1172 \fdsy@DeclareSymbol{\downVDash}{arrows}{\mathrel}
1173 \fdsy@DeclareSymbol{\Vvdash}{arrows}{\mathrel}
1174 \fdsy@DeclareSymbol{\dashVv}{arrows}{\mathrel}
1175 \fdsy@DeclareSymbol{\vDdash}{arrows}{\mathrel}
1176 \fdsy@DeclareSymbol{\Ddashv}{arrows}{\mathrel}
1177
1178 \DeclareRobustCommand{\relbar}{\mathrel{\smash-}}
1179 \DeclareRobustCommand{\Relbar}{\mathrel=}
1180 \let\joinrel\undefined
1181 \DeclareRobustCommand\joinrel{\mathrel{\mkern-4mu}}
```

FdSymbolD: stroked arrows

```
1182 \fdsy@setslot{0}
1183 \fdsy@DeclareSymbol{\nrightarrow}{narrows}{\mathrel}
1184   \fdsy@DeclareAlias{\nto}{narrows}{\mathrel}
1185 \fdsy@DeclareSymbol{\nuparrow}{narrows}{\mathrel}
1186 \fdsy@DeclareSymbol{\nleftarrow}{narrows}{\mathrel}
1187   \fdsy@DeclareAlias{\ngets}{narrows}{\mathrel}
1188 \fdsy@DeclareSymbol{\ndownarrow}{narrows}{\mathrel}
1189 \fdsy@DeclareSymbol{\nnearrow}{narrows}{\mathrel}
1190 \fdsy@DeclareSymbol{\nnwarrow}{narrows}{\mathrel}
1191 \fdsy@DeclareSymbol{\nswarrow}{narrows}{\mathrel}
1192 \fdsy@DeclareSymbol{\nsearrow}{narrows}{\mathrel}
1193 \fdsy@DeclareSymbol{\nRightarrow}{narrows}{\mathrel}
1194 \fdsy@DeclareSymbol{\nUparrow}{narrows}{\mathrel}
1195 \fdsy@DeclareSymbol{\nLeftarrow}{narrows}{\mathrel}
1196 \fdsy@DeclareSymbol{\nDownarrow}{narrows}{\mathrel}
1197 \fdsy@DeclareSymbol{\nNearrow}{narrows}{\mathrel}
1198 \fdsy@DeclareSymbol{\nNwarrow}{narrows}{\mathrel}
1199 \fdsy@DeclareSymbol{\nSwarrow}{narrows}{\mathrel}
1200 \fdsy@DeclareSymbol{\nSearrow}{narrows}{\mathrel}
1201 \fdsy@DeclareSymbol{\nleftrightarrow}{narrows}{\mathrel}
1202 \fdsy@DeclareSymbol{\nupdownarrow}{narrows}{\mathrel}
1203 \fdsy@DeclareSymbol{\nneswarrow}{narrows}{\mathrel}
1204 \fdsy@DeclareSymbol{\nnwsearrow}{narrows}{\mathrel}
1205 \fdsy@DeclareSymbol{\nLeftrightarrow}{narrows}{\mathrel}
1206 \fdsy@DeclareSymbol{\nUpdownarrow}{narrows}{\mathrel}
1207 \fdsy@DeclareSymbol{\nNeswarrow}{narrows}{\mathrel}
1208 \fdsy@DeclareSymbol{\nNwsearrow}{narrows}{\mathrel}
1209 \fdsy@DeclareSymbol{\ntwoheadrightarrow}{narrows}{\mathrel}
1210 \fdsy@DeclareSymbol{\ntwoheaduparrow}{narrows}{\mathrel}
1211 \fdsy@DeclareSymbol{\ntwoheadleftarrow}{narrows}{\mathrel}
1212 \fdsy@DeclareSymbol{\ntwoheaddownarrow}{narrows}{\mathrel}
1213 \fdsy@DeclareSymbol{\ntwoheadnearrow}{narrows}{\mathrel}
1214 \fdsy@DeclareSymbol{\ntwoheadnwarrow}{narrows}{\mathrel}
1215 \fdsy@DeclareSymbol{\ntwoheadswarrow}{narrows}{\mathrel}
1216 \fdsy@DeclareSymbol{\ntwoheadsearrow}{narrows}{\mathrel}
1217 \fdsy@DeclareSymbol{\nrightarrowtail}{narrows}{\mathrel}
1218 \fdsy@DeclareSymbol{\nuparrowtail}{narrows}{\mathrel}
1219 \fdsy@DeclareSymbol{\nleftarrowtail}{narrows}{\mathrel}
1220 \fdsy@DeclareSymbol{\ndownarrowtail}{narrows}{\mathrel}
1221 \fdsy@DeclareSymbol{\nnearrowtail}{narrows}{\mathrel}
1222 \fdsy@DeclareSymbol{\nnwarrowtail}{narrows}{\mathrel}
1223 \fdsy@DeclareSymbol{\nswarrowtail}{narrows}{\mathrel}
1224 \fdsy@DeclareSymbol{\nsearrowtail}{narrows}{\mathrel}
1225 \fdsy@DeclareSymbol{\nrightmapsto}{narrows}{\mathrel}
1226   \fdsy@DeclareAlias{\nmapsto}{narrows}{\mathrel}
```

```
1227 \fdsy@DeclareSymbol{\nupmapsto}{narrows}{\mathrel}
1228   \fdsy@DeclareAlias{\nmapsup}{narrows}{\mathrel}
1229 \fdsy@DeclareSymbol{\nleftmapsto}{narrows}{\mathrel}
1230   \fdsy@DeclareAlias{\nmapsfrom}{narrows}{\mathrel}
1231 \fdsy@DeclareSymbol{\ndownmapsto}{narrows}{\mathrel}
1232   \fdsy@DeclareAlias{\nmapsdown}{narrows}{\mathrel}
1233 \fdsy@DeclareSymbol{\nRightmapsto}{narrows}{\mathrel}
1234   \fdsy@DeclareAlias{\nMapsto}{narrows}{\mathrel}
1235 \fdsy@DeclareSymbol{\nUpmapsto}{narrows}{\mathrel}
1236   \fdsy@DeclareAlias{\nMapsup}{narrows}{\mathrel}
1237 \fdsy@DeclareSymbol{\nLeftmapsto}{narrows}{\mathrel}
1238   \fdsy@DeclareAlias{\nMapsfrom}{narrows}{\mathrel}
1239 \fdsy@DeclareSymbol{\nDownmapsto}{narrows}{\mathrel}
1240   \fdsy@DeclareAlias{\nMapsdown}{narrows}{\mathrel}
1241 \fdsy@DeclareSymbol{\nhookrightarrow}{narrows}{\mathrel}
1242 \fdsy@DeclareSymbol{\nhookuparrow}{narrows}{\mathrel}
1243 \fdsy@DeclareSymbol{\nvarhookleftarrow}{narrows}{\mathrel}
1244 \fdsy@DeclareSymbol{\nvarhookdownarrow}{narrows}{\mathrel}
1245 \fdsy@DeclareSymbol{\nvarhooknearrow}{narrows}{\mathrel}
1246 \fdsy@DeclareSymbol{\nhooknwarrow}{narrows}{\mathrel}
1247   \fdsy@DeclareAlias{\nhknwarrow}{narrows}{\mathrel}
1248 \fdsy@DeclareSymbol{\nvarhookswarrow}{narrows}{\mathrel}
1249 \fdsy@DeclareSymbol{\nhooksearrow}{narrows}{\mathrel}
1250   \fdsy@DeclareAlias{\nhksearrow}{narrows}{\mathrel}
1251 \fdsy@DeclareSymbol{\nvarhookrightarrow}{narrows}{\mathrel}
1252 \fdsy@DeclareSymbol{\nvarhookuparrow}{narrows}{\mathrel}
1253 \fdsy@DeclareSymbol{\nhookleftarrow}{narrows}{\mathrel}
1254 \fdsy@DeclareSymbol{\nhookdownarrow}{narrows}{\mathrel}
1255 \fdsy@DeclareSymbol{\nhooknearrow}{narrows}{\mathrel}
1256   \fdsy@DeclareAlias{\nhknearrow}{narrows}{\mathrel}
1257 \fdsy@DeclareSymbol{\nvarhooknwarrow}{narrows}{\mathrel}
1258 \fdsy@DeclareSymbol{\nhookswarrow}{narrows}{\mathrel}
1259   \fdsy@DeclareAlias{\nhkswarrow}{narrows}{\mathrel}
1260 \fdsy@DeclareSymbol{\nvarhooksearrow}{narrows}{\mathrel}
1261 \fdsy@DeclareSymbol{\nrightharpoonup}{narrows}{\mathrel}
1262 \fdsy@DeclareSymbol{\nupharpoonleft}{narrows}{\mathrel}
1263 \fdsy@DeclareSymbol{\nleftharpoondown}{narrows}{\mathrel}
1264 \fdsy@DeclareSymbol{\ndownharpoonright}{narrows}{\mathrel}
1265 \fdsy@DeclareSymbol{\nneharpoonnw}{narrows}{\mathrel}
1266 \fdsy@DeclareSymbol{\nnwharpoonsw}{narrows}{\mathrel}
1267 \fdsy@DeclareSymbol{\nswharpoonse}{narrows}{\mathrel}
1268 \fdsy@DeclareSymbol{\nseharpoonne}{narrows}{\mathrel}
1269 \fdsy@DeclareSymbol{\nrightharpoondown}{narrows}{\mathrel}
1270 \fdsy@DeclareSymbol{\nupharpoonright}{narrows}{\mathrel}
1271   \fdsy@DeclareAlias{\nrestriction}{narrows}{\mathrel}
```

```
1272 \fdsy@DeclareSymbol{\nleftharpoonup}{narrows}{\mathrel}
1273 \fdsy@DeclareSymbol{\ndownharpoonleft}{narrows}{\mathrel}
1274 \fdsy@DeclareSymbol{\nneharpoonse}{narrows}{\mathrel}
1275 \fdsy@DeclareSymbol{\nnwharpoonne}{narrows}{\mathrel}
1276 \fdsy@DeclareSymbol{\nswharpoonnw}{narrows}{\mathrel}
1277 \fdsy@DeclareSymbol{\nseharpoonsw}{narrows}{\mathrel}
1278 \fdsy@DeclareSymbol{\nleftrightharpoonupdown}{narrows}{\mathrel}
1279 \fdsy@DeclareSymbol{\nupdownharpoonleftright}{narrows}{\mathrel}
1280 \fdsy@DeclareSymbol{\nneswharpoonnwse}{narrows}{\mathrel}
1281 \fdsy@DeclareSymbol{\nnwseharpoonnesw}{narrows}{\mathrel}
1282 \fdsy@DeclareSymbol{\nleftrightharpoondownup}{narrows}{\mathrel}
1283 \fdsy@DeclareSymbol{\nupdownharpoonrightleft}{narrows}{\mathrel}
1284 \fdsy@DeclareSymbol{\nneswharpoonsenw}{narrows}{\mathrel}
1285 \fdsy@DeclareSymbol{\nnwseharpoonswne}{narrows}{\mathrel}
1286 \fdsy@DeclareSymbol{\nrightleftharpoons}{narrows}{\mathrel}
1287 \fdsy@DeclareSymbol{\nupdownharpoons}{narrows}{\mathrel}
1288   \fdsy@DeclareAlias{\nupdownharpoonsleftright}{narrows}{\mathrel}
1289 \fdsy@DeclareSymbol{\nneswharpoons}{narrows}{\mathrel}
1290 \fdsy@DeclareSymbol{\nsenwharpoons}{narrows}{\mathrel}
1291 \fdsy@DeclareSymbol{\nleftrightharpoons}{narrows}{\mathrel}
1292 \fdsy@DeclareSymbol{\ndownupharpoons}{narrows}{\mathrel}
1293   \fdsy@DeclareAlias{\ndownupharpoonsleftright}{narrows}{\mathrel}
1294 \fdsy@DeclareSymbol{\nswneharpoons}{narrows}{\mathrel}
1295 \fdsy@DeclareSymbol{\nnwseharpoons}{narrows}{\mathrel}
1296 \fdsy@DeclareSymbol{\nrightbkarrow}{narrows}{\mathrel}
1297   \fdsy@DeclareAlias{\ndasharrow}{narrows}{\mathrel}
1298   \fdsy@DeclareAlias{\ndashrightarrow}{narrows}{\mathrel}
1299 \fdsy@DeclareSymbol{\nupbkarrow}{narrows}{\mathrel}
1300 \fdsy@DeclareSymbol{\nleftbkarrow}{narrows}{\mathrel}
1301   \fdsy@DeclareAlias{\ndashleftarrow}{narrows}{\mathrel}
1302 \fdsy@DeclareSymbol{\ndownbkarrow}{narrows}{\mathrel}
1303 \fdsy@DeclareSymbol{\nnebkarrow}{narrows}{\mathrel}
1304 \fdsy@DeclareSymbol{\nnwbkarrow}{narrows}{\mathrel}
1305 \fdsy@DeclareSymbol{\nswbkarrow}{narrows}{\mathrel}
1306 \fdsy@DeclareSymbol{\nsebkarrow}{narrows}{\mathrel}
1307 \fdsy@DeclareSymbol{\nrightspoon}{narrows}{\mathrel}
1308   \fdsy@DeclareAlias{\nmultimap}{narrows}{\mathrel}
1309 \fdsy@DeclareSymbol{\nupspoon}{narrows}{\mathrel}
1310   \fdsy@DeclareAlias{\ncirmid}{narrows}{\mathrel}
1311 \fdsy@DeclareSymbol{\nleftspoon}{narrows}{\mathrel}
1312   \fdsy@DeclareAlias{\nmultimapinv}{narrows}{\mathrel}
1313 \fdsy@DeclareSymbol{\ndownspoon}{narrows}{\mathrel}
1314   \fdsy@DeclareAlias{\nmidcir}{narrows}{\mathrel}
1315 \fdsy@DeclareSymbol{\nrightblackspoon}{narrows}{\mathrel}
1316 \fdsy@DeclareSymbol{\nupblackspoon}{narrows}{\mathrel}
```

```
1317 \fdsy@DeclareSymbol{\nleftblackspoon}{narrows}{\mathrel}
1318 \fdsy@DeclareSymbol{\ndownblackspoon}{narrows}{\mathrel}
1319 \fdsy@DeclareSymbol{\nleftrightspoon}{narrows}{\mathrel}
1320   \fdsy@DeclareAlias{\ndualmap}{narrows}{\mathrel}
1321 \fdsy@DeclareSymbol{\nleftrightblackspoon}{narrows}{\mathrel}
1322 \fdsy@DeclareSymbol{\nblackwhitespoon}{narrows}{\mathrel}
1323   \fdsy@DeclareAlias{\nimageof}{narrows}{\mathrel}
1324 \fdsy@DeclareSymbol{\nwhiteblackspoon}{narrows}{\mathrel}
1325   \fdsy@DeclareAlias{\norigof}{narrows}{\mathrel}
1326 \fdsy@DeclareSymbol{\nrightpitchfork}{narrows}{\mathrel}
1327 \fdsy@DeclareSymbol{\nuppitchfork}{narrows}{\mathrel}
1328   \fdsy@DeclareAlias{\npitchfork}{narrows}{\mathrel}
1329 \fdsy@DeclareSymbol{\nleftpitchfork}{narrows}{\mathrel}
1330 \fdsy@DeclareSymbol{\ndownpitchfork}{narrows}{\mathrel}
1331 \fdsy@DeclareSymbol{\nrightrightarrows}{narrows}{\mathrel}
1332 \fdsy@DeclareSymbol{\nupuparrows}{narrows}{\mathrel}
1333 \fdsy@DeclareSymbol{\nleftleftarrows}{narrows}{\mathrel}
1334 \fdsy@DeclareSymbol{\ndowndownarrows}{narrows}{\mathrel}
1335 \fdsy@DeclareSymbol{\nnenearrows}{narrows}{\mathrel}
1336 \fdsy@DeclareSymbol{\nnwnwarrows}{narrows}{\mathrel}
1337 \fdsy@DeclareSymbol{\nswswarrows}{narrows}{\mathrel}
1338 \fdsy@DeclareSymbol{\nsesearrows}{narrows}{\mathrel}
1339 \fdsy@DeclareSymbol{\nrightleftarrows}{narrows}{\mathrel}
1340 \fdsy@DeclareSymbol{\nupdownarrows}{narrows}{\mathrel}
1341 \fdsy@DeclareSymbol{\nneswarrows}{narrows}{\mathrel}
1342 \fdsy@DeclareSymbol{\nnwsearrows}{narrows}{\mathrel}
1343 \fdsy@DeclareSymbol{\nleftrightarrows}{narrows}{\mathrel}
1344 \fdsy@DeclareSymbol{\ndownuparrows}{narrows}{\mathrel}
1345 \fdsy@DeclareSymbol{\nswnearrows}{narrows}{\mathrel}
1346 \fdsy@DeclareSymbol{\nsenwarrows}{narrows}{\mathrel}
1347 \fdsy@DeclareSymbol{\nrightwavearrow}{narrows}{\mathrel}
1348   \fdsy@DeclareAlias{\nleadsto}{narrows}{\mathrel}
1349   \fdsy@DeclareAlias{\nrightsquigarrow}{narrows}{\mathrel}
1350   \fdsy@DeclareAlias{\nrightcurvedarrow}{arrows}{\mathrel}
1351   \fdsy@DeclareAlias{\nrightlsquigarrow}{narrows}{\mathrel}
1352 \fdsy@DeclareSymbol{\nvarupwavearrow}{narrows}{\mathrel}
1353   \fdsy@DeclareAlias{\nuplsquigarrow}{narrows}{\mathrel}
1354 \fdsy@DeclareSymbol{\nvarleftwavearrow}{narrows}{\mathrel}
1355   \fdsy@DeclareAlias{\nleftlsquigarrow}{narrows}{\mathrel}
1356 \fdsy@DeclareSymbol{\ndownwavearrow}{narrows}{\mathrel}
1357   \fdsy@DeclareAlias{\ndownlsquigarrow}{narrows}{\mathrel}
1358 \fdsy@DeclareSymbol{\nvarrightwavearrow}{narrows}{\mathrel}
1359   \fdsy@DeclareAlias{\nrightrsquigarrow}{narrows}{\mathrel}
1360 \fdsy@DeclareSymbol{\nupwavearrow}{narrows}{\mathrel}
1361   \fdsy@DeclareAlias{\nuprsquigarrow}{narrows}{\mathrel}
```

```
1362 \fdsy@DeclareSymbol{\nleftwavearrow}{narrows}{\mathrel}
1363   \fdsy@DeclareAlias{\nleftsquigarrow}{narrows}{\mathrel}
1364   \fdsy@DeclareAlias{\nleftcurvedarrow}{arrows}{\mathrel}
1365   \fdsy@DeclareAlias{\nleftrsquigarrow}{narrows}{\mathrel}
1366 \fdsy@DeclareSymbol{\nvardownwavearrow}{narrows}{\mathrel}
1367   \fdsy@DeclareAlias{\ndownrsquigarrow}{narrows}{\mathrel}
1368 \fdsy@DeclareSymbol{\nleftrightwavearrow}{narrows}{\mathrel}
1369   \fdsy@DeclareAlias{\nleftrightsquigarrow}{narrows}{\mathrel}
1370 \fdsy@DeclareSymbol{\nupdownwavearrow}{narrows}{\mathrel}
1371   \fdsy@DeclareAlias{\nupdownsquigarrow}{narrows}{\mathrel}
1372 \fdsy@DeclareSymbol{\nvarleftrightwavearrow}{narrows}{\mathrel}
1373   \fdsy@DeclareAlias{\nrightleftsquigarrow}{narrows}{\mathrel}
1374 \fdsy@DeclareSymbol{\nvarupdownwavearrow}{narrows}{\mathrel}
1375   \fdsy@DeclareAlias{\ndownupsquigarrow}{narrows}{\mathrel}
1376 \fdsy@DeclareSymbol{\ncwoverarcarrow}{narrows}{\mathrel}
1377   \fdsy@DeclareAlias{\ncurvearrowright}{narrows}{\mathrel}
1378   \fdsy@DeclareAlias{\nrightlcurvearrow}{narrows}{\mathrel}
1379 \fdsy@DeclareSymbol{\ncwleftarcarrow}{narrows}{\mathrel}
1380   \fdsy@DeclareAlias{\nuplcurvearrow}{narrows}{\mathrel}
1381 \fdsy@DeclareSymbol{\ncwunderarcarrow}{narrows}{\mathrel}
1382   \fdsy@DeclareAlias{\nleftlcurvearrow}{narrows}{\mathrel}
1383 \fdsy@DeclareSymbol{\ncwrightarcarrow}{narrows}{\mathrel}
1384   \fdsy@DeclareAlias{\ndownlcurvearrow}{narrows}{\mathrel}
1385 \fdsy@DeclareSymbol{\ncwnwarcarrow}{narrows}{\mathrel}
1386   \fdsy@DeclareAlias{\nrightupcurvedarrow}{narrows}{\mathrel}
1387   \fdsy@DeclareAlias{\nnelcurvearrow}{narrows}{\mathrel}
1388 \fdsy@DeclareSymbol{\ncwswarcarrow}{narrows}{\mathrel}
1389   \fdsy@DeclareAlias{\nupleftcurvedarrow}{narrows}{\mathrel}
1390   \fdsy@DeclareAlias{\nnwlcurvearrow}{narrows}{\mathrel}
1391 \fdsy@DeclareSymbol{\ncwsearcarrow}{narrows}{\mathrel}
1392   \fdsy@DeclareAlias{\nleftdowncurvedarrow}{narrows}{\mathrel}
1393   \fdsy@DeclareAlias{\nswlcurvearrow}{narrows}{\mathrel}
1394 \fdsy@DeclareSymbol{\ncwnearcarrow}{narrows}{\mathrel}
1395   \fdsy@DeclareAlias{\ndownrightcurvedarrow}{narrows}{\mathrel}
1396   \fdsy@DeclareAlias{\nselcurvearrow}{narrows}{\mathrel}
1397 \fdsy@DeclareSymbol{\nacwunderarcarrow}{narrows}{\mathrel}
1398   \fdsy@DeclareAlias{\nrightrcurvearrow}{narrows}{\mathrel}
1399 \fdsy@DeclareSymbol{\nacwrightarcarrow}{narrows}{\mathrel}
1400   \fdsy@DeclareAlias{\nuprcurvearrow}{narrows}{\mathrel}
1401 \fdsy@DeclareSymbol{\nacwoverarcarrow}{narrows}{\mathrel}
1402   \fdsy@DeclareAlias{\ncurvearrowleft}{narrows}{\mathrel}
1403   \fdsy@DeclareAlias{\nleftrcurvearrow}{narrows}{\mathrel}
1404 \fdsy@DeclareSymbol{\nacwleftarcarrow}{narrows}{\mathrel}
1405   \fdsy@DeclareAlias{\ndownrcurvearrow}{narrows}{\mathrel}
1406 \fdsy@DeclareSymbol{\nacwsearcarrow}{narrows}{\mathrel}
```

```
1407    \fdsy@DeclareAlias{\nuprightcurvearrow}{narrows}{\mathrel}
1408    \fdsy@DeclareAlias{\nnercurvearrow}{narrows}{\mathrel}
1409 \fdsy@DeclareSymbol{\nacwnearcarrow}{narrows}{\mathrel}
1410    \fdsy@DeclareAlias{\nleftupcurvedarrow}{narrows}{\mathrel}
1411    \fdsy@DeclareAlias{\nnwrcurvearrow}{narrows}{\mathrel}
1412 \fdsy@DeclareSymbol{\nacwnwarcarrow}{narrows}{\mathrel}
1413    \fdsy@DeclareAlias{\ndownleftcurvedarrow}{narrows}{\mathrel}
1414    \fdsy@DeclareAlias{\nswrcurvearrow}{narrows}{\mathrel}
1415 \fdsy@DeclareSymbol{\nacwswarcarrow}{narrows}{\mathrel}
1416    \fdsy@DeclareAlias{\nrightdowncurvedarrow}{narrows}{\mathrel}
1417    \fdsy@DeclareAlias{\nsercurvearrow}{narrows}{\mathrel}
1418 \fdsy@DeclareSymbol{\nbdoverarcarrow}{narrows}{\mathrel}
1419    \fdsy@DeclareAlias{\nleftrightcurvearrow}{narrows}{\mathrel}
1420 \fdsy@DeclareSymbol{\nbdleftarcarrow}{narrows}{\mathrel}
1421    \fdsy@DeclareAlias{\nupdowncurvearrow}{narrows}{\mathrel}
1422 \fdsy@DeclareSymbol{\nbdunderarcarrow}{narrows}{\mathrel}
1423    \fdsy@DeclareAlias{\nrightleftcurvearrow}{narrows}{\mathrel}
1424 \fdsy@DeclareSymbol{\nbdrightarcarrow}{narrows}{\mathrel}
1425    \fdsy@DeclareAlias{\ndownupcurvearrow}{narrows}{\mathrel}
1426 \fdsy@DeclareSymbol{\nbdnwarcarrow}{narrows}{\mathrel}
1427    \fdsy@DeclareAlias{\nneswcurvearrow}{narrows}{\mathrel}
1428 \fdsy@DeclareSymbol{\nbdswarcarrow}{narrows}{\mathrel}
1429    \fdsy@DeclareAlias{\nnwsecurvearrow}{narrows}{\mathrel}
1430 \fdsy@DeclareSymbol{\nbdsearcarrow}{narrows}{\mathrel}
1431    \fdsy@DeclareAlias{\nswnecurvearrow}{narrows}{\mathrel}
1432 \fdsy@DeclareSymbol{\nbdnearcarrow}{narrows}{\mathrel}
1433    \fdsy@DeclareAlias{\nsenwcurvearrow}{narrows}{\mathrel}
1434 \fdsy@DeclareSymbol{\nleftfootline}{narrows}{\mathrel}
1435 \fdsy@DeclareSymbol{\nrightfootline}{narrows}{\mathrel}
1436 \fdsy@DeclareSymbol{\nacwcirclearrowup}{narrows}{\mathrel}
1437 \fdsy@DeclareSymbol{\nacwcirclearrowleft}{narrows}{\mathrel}
1438    \fdsy@DeclareAlias{\ncirclearrowleft}{narrows}{\mathrel}
1439    \fdsy@DeclareAlias{\nacwopencirclearrow}{narrows}{\mathrel}
1440 \fdsy@DeclareSymbol{\nacwcirclearrowdown}{narrows}{\mathrel}
1441    \fdsy@DeclareAlias{\nacwgapcirclearrow}{narrows}{\mathrel}
1442 \fdsy@DeclareSymbol{\nacwcirclearrowright}{narrows}{\mathrel}
1443 \fdsy@DeclareSymbol{\ncwcirclearrowdown}{narrows}{\mathrel}
1444    \fdsy@DeclareAlias{\ncwgapcirclearrow}{narrows}{\mathrel}
1445 \fdsy@DeclareSymbol{\ncwcirclearrowright}{narrows}{\mathrel}
1446    \fdsy@DeclareAlias{\ncirclearrowright}{narrows}{\mathrel}
1447    \fdsy@DeclareAlias{\ncwopencirclearrow}{narrows}{\mathrel}
1448 \fdsy@DeclareSymbol{\ncwcirclearrowup}{narrows}{\mathrel}
1449 \fdsy@DeclareSymbol{\ncwcirclearrowleft}{narrows}{\mathrel}
1450 \fdsy@DeclareSymbol{\nRrightarrow}{narrows}{\mathrel}
1451 \fdsy@DeclareSymbol{\nUuparrow}{narrows}{\mathrel}
```

```
1452 \fdsy@DeclareSymbol{\nLlleftarrow}{narrows}{\mathrel}
1453 \fdsy@DeclareSymbol{\nDdownarrow}{narrows}{\mathrel}
1454 \fdsy@DeclareSymbol{\nlongrightarrow}{narrows}{\mathrel}
1455 \fdsy@DeclareSymbol{\nlongleftarrow}{narrows}{\mathrel}
1456 \fdsy@DeclareSymbol{\nLongrightarrow}{narrows}{\mathrel}
1457 \fdsy@DeclareSymbol{\nLongleftarrow}{narrows}{\mathrel}
1458 \fdsy@DeclareSymbol{\nlongleftrightarrow}{narrows}{\mathrel}
1459 \fdsy@DeclareSymbol{\nLongleftrightarrow}{narrows}{\mathrel}
1460 \fdsy@DeclareSymbol{\nlongmapsto}{narrows}{\mathrel}
1461 \fdsy@DeclareSymbol{\nlongmapsfrom}{narrows}{\mathrel}
1462 \fdsy@DeclareSymbol{\nLongmapsto}{narrows}{\mathrel}
1463 \fdsy@DeclareSymbol{\nLongmapsfrom}{narrows}{\mathrel}
1464 \fdsy@DeclareSymbol{\nlongrightwavearrow}{narrows}{\mathrel}
1465   \fdsy@DeclareAlias{\nlongleadsto}{narrows}{\mathrel}
1466   \fdsy@DeclareAlias{\nlongrightsquigarrow}{narrows}{\mathrel}
1467 \fdsy@DeclareSymbol{\nlongleftwavearrow}{narrows}{\mathrel}
1468   \fdsy@DeclareAlias{\nlongleftsquigarrow}{narrows}{\mathrel}
1469 \fdsy@DeclareSymbol{\nlongleftfootline}{narrows}{\mathrel}
1470   \fdsy@DeclareAlias{\nvlongdash}{narrows}{\mathrel}
1471 \fdsy@DeclareSymbol{\nlongrightfootline}{narrows}{\mathrel}
1472   \fdsy@DeclareAlias{\nlongdashv}{narrows}{\mathrel}
1473 \fdsy@setslot{224}
1474 \fdsy@DeclareSymbol{\nrightvdash}{narrows}{\mathrel}
1475   \fdsy@DeclareAlias{\nvdash}{narrows}{\mathrel}
1476 \fdsy@DeclareSymbol{\nupvdash}{narrows}{\mathrel}
1477   \fdsy@DeclareAlias{\nperp}{narrows}{\mathrel}
1478 \fdsy@DeclareSymbol{\nleftvdash}{narrows}{\mathrel}
1479   \fdsy@DeclareAlias{\ndashv}{narrows}{\mathrel}
1480 \fdsy@DeclareSymbol{\ndownvdash}{narrows}{\mathrel}
1481 \fdsy@DeclareSymbol{\nrightassert}{narrows}{\mathrel}
1482   \fdsy@DeclareAlias{\nassert}{narrows}{\mathrel}
1483   \fdsy@DeclareAlias{\nshortrighttack}{narrows}{\mathrel}
1484 \fdsy@DeclareSymbol{\nupassert}{narrows}{\mathrel}
1485   \fdsy@DeclareAlias{\nshortuptack}{narrows}{\mathrel}
1486 \fdsy@DeclareSymbol{\nleftassert}{narrows}{\mathrel}
1487   \fdsy@DeclareAlias{\nshortlefttack}{narrows}{\mathrel}
1488 \fdsy@DeclareSymbol{\ndownassert}{narrows}{\mathrel}
1489   \fdsy@DeclareAlias{\nshortdowntack}{narrows}{\mathrel}
1490 \fdsy@DeclareSymbol{\nrightvDash}{narrows}{\mathrel}
1491   \fdsy@DeclareAlias{\nvDash}{narrows}{\mathrel}
1492 \fdsy@DeclareSymbol{\nupvDash}{narrows}{\mathrel}
1493   \fdsy@DeclareAlias{\nVbar}{narrows}{\mathrel}
1494 \fdsy@DeclareSymbol{\nleftvDash}{narrows}{\mathrel}
1495   \fdsy@DeclareAlias{\nDashv}{narrows}{\mathrel}
1496 \fdsy@DeclareSymbol{\ndownvDash}{narrows}{\mathrel}
```

```
1497    \fdsy@DeclareAlias{\nbarV}{narrows}{\mathrel}
1498 \fdsy@DeclareSymbol{\nrightmodels}{narrows}{\mathrel}
1499    \fdsy@DeclareAlias{\nmodels}{narrows}{\mathrel}
1500 \fdsy@DeclareSymbol{\nupmodels}{narrows}{\mathrel}
1501 \fdsy@DeclareSymbol{\nleftmodels}{narrows}{\mathrel}
1502 \fdsy@DeclareSymbol{\ndownmodels}{narrows}{\mathrel}
1503 \fdsy@DeclareSymbol{\nrightVdash}{narrows}{\mathrel}
1504    \fdsy@DeclareAlias{\nVdash}{narrows}{\mathrel}
1505 \fdsy@DeclareSymbol{\nupVdash}{narrows}{\mathrel}
1506 \fdsy@DeclareSymbol{\nleftVdash}{narrows}{\mathrel}
1507    \fdsy@DeclareAlias{\ndashV}{narrows}{\mathrel}
1508 \fdsy@DeclareSymbol{\ndownVdash}{narrows}{\mathrel}
1509 \fdsy@DeclareSymbol{\nrightAssert}{narrows}{\mathrel}
1510  \fdsy@DeclareAlias{\nAssert}{narrows}{\mathrel}
1511 \fdsy@DeclareSymbol{\nupAssert}{narrows}{\mathrel}
1512    \fdsy@DeclareAlias{\nvBar}{narrows}{\mathrel}
1513 \fdsy@DeclareSymbol{\nleftAssert}{narrows}{\mathrel}
1514 \fdsy@DeclareSymbol{\ndownAssert}{narrows}{\mathrel}
1515    \fdsy@DeclareAlias{\nBarv}{narrows}{\mathrel}
1516 \fdsy@DeclareSymbol{\nrightVDash}{narrows}{\mathrel}
1517    \fdsy@DeclareAlias{\nVDash}{narrows}{\mathrel}
1518 \fdsy@DeclareSymbol{\nupVDash}{narrows}{\mathrel}
1519 \fdsy@DeclareSymbol{\nleftVDash}{narrows}{\mathrel}
1520    \fdsy@DeclareAlias{\nDashV}{narrows}{\mathrel}
1521 \fdsy@DeclareSymbol{\ndownVDash}{narrows}{\mathrel}
1522 \fdsy@DeclareSymbol{\nVvdash}{narrows}{\mathrel}
1523 \fdsy@DeclareSymbol{\ndashVv}{narrows}{\mathrel}
1524 \fdsy@DeclareSymbol{\nvDdash}{narrows}{\mathrel}
1525 \fdsy@DeclareSymbol{\nDdashv}{narrows}{\mathrel}
```

FdSymbolE: large operators

```
1526 \fdsy@setslot{0}
1527 \fdsy@DeclareSymbol{\tbigplus}{largesymbols}{\mathop}
1528 \fdsy@DeclareSymbol{\dbigplus}{largesymbols}{\mathop}
1529 \fdsy@DeclareSymbol{\tbigtimes}{largesymbols}{\mathop}
1530 \fdsy@DeclareSymbol{\dbigtimes}{largesymbols}{\mathop}
1531 \fdsy@DeclareSymbol{\tbigwedge}{largesymbols}{\mathop}
1532 \fdsy@DeclareSymbol{\dbigwedge}{largesymbols}{\mathop}
1533 \fdsy@DeclareSymbol{\tbigvee}{largesymbols}{\mathop}
1534 \fdsy@DeclareSymbol{\dbigvee}{largesymbols}{\mathop}
1535 \fdsy@DeclareSymbol{\tbigwedgedot}{largesymbols}{\mathop}
1536 \fdsy@DeclareSymbol{\dbigwedgedot}{largesymbols}{\mathop}
1537 \fdsy@DeclareSymbol{\tbigveedot}{largesymbols}{\mathop}
1538 \fdsy@DeclareSymbol{\dbigveedot}{largesymbols}{\mathop}
1539 \fdsy@DeclareSymbol{\tbigdoublewedge}{largesymbols}{\mathop}
1540    \fdsy@DeclareAlias{\tconjquant}{largesymbols}{\mathop}
```

```
1541 \fdsy@DeclareSymbol{\dbigdoublewedge}{largesymbols}{\mathop}
1542   \fdsy@DeclareAlias{\dconjquant}{largesymbols}{\mathop}
1543 \fdsy@DeclareSymbol{\tbigdoublevee}{largesymbols}{\mathop}
1544   \fdsy@DeclareAlias{\tdisjquant}{largesymbols}{\mathop}
1545 \fdsy@DeclareSymbol{\dbigdoublevee}{largesymbols}{\mathop}
1546   \fdsy@DeclareAlias{\ddisjquant}{largesymbols}{\mathop}
1547 \fdsy@DeclareSymbol{\tbigcurlywedge}{largesymbols}{\mathop}
1548 \fdsy@DeclareSymbol{\dbigcurlywedge}{largesymbols}{\mathop}
1549 \fdsy@DeclareSymbol{\tbigcurlyvee}{largesymbols}{\mathop}
1550 \fdsy@DeclareSymbol{\dbigcurlyvee}{largesymbols}{\mathop}
1551 \fdsy@DeclareSymbol{\tbigcap}{largesymbols}{\mathop}
1552 \fdsy@DeclareSymbol{\dbigcap}{largesymbols}{\mathop}
1553 \fdsy@DeclareSymbol{\tbigcup}{largesymbols}{\mathop}
1554 \fdsy@DeclareSymbol{\dbigcup}{largesymbols}{\mathop}
1555 \fdsy@DeclareSymbol{\tbigcapdot}{largesymbols}{\mathop}
1556 \fdsy@DeclareSymbol{\dbigcapdot}{largesymbols}{\mathop}
1557 \fdsy@DeclareSymbol{\tbigcupdot}{largesymbols}{\mathop}
1558 \fdsy@DeclareSymbol{\dbigcupdot}{largesymbols}{\mathop}
1559 \fdsy@DeclareSymbol{\tbigcapplus}{largesymbols}{\mathop}
1560 \fdsy@DeclareSymbol{\dbigcapplus}{largesymbols}{\mathop}
1561 \fdsy@DeclareSymbol{\tbigcupplus}{largesymbols}{\mathop}
1562   \fdsy@DeclareAlias{\tbiguplus}{largesymbols}{\mathop}
1563 \fdsy@DeclareSymbol{\dbigcupplus}{largesymbols}{\mathop}
1564   \fdsy@DeclareAlias{\dbiguplus}{largesymbols}{\mathop}
1565 \fdsy@DeclareSymbol{\tbigsqcap}{largesymbols}{\mathop}
1566 \fdsy@DeclareSymbol{\dbigsqcap}{largesymbols}{\mathop}
1567 \fdsy@DeclareSymbol{\tbigsqcup}{largesymbols}{\mathop}
1568 \fdsy@DeclareSymbol{\dbigsqcup}{largesymbols}{\mathop}
1569 \fdsy@DeclareSymbol{\tbigsqcapdot}{largesymbols}{\mathop}
1570 \fdsy@DeclareSymbol{\dbigsqcapdot}{largesymbols}{\mathop}
1571 \fdsy@DeclareSymbol{\tbigsqcupdot}{largesymbols}{\mathop}
1572 \fdsy@DeclareSymbol{\dbigsqcupdot}{largesymbols}{\mathop}
1573 \fdsy@DeclareSymbol{\tbigsqcapplus}{largesymbols}{\mathop}
1574 \fdsy@DeclareSymbol{\dbigsqcapplus}{largesymbols}{\mathop}
1575 \fdsy@DeclareSymbol{\tbigsqcupplus}{largesymbols}{\mathop}
1576 \fdsy@DeclareSymbol{\dbigsqcupplus}{largesymbols}{\mathop}
1577 \fdsy@DeclareSymbol{\tbigoplus}{largesymbols}{\mathop}
1578 \fdsy@DeclareSymbol{\dbigoplus}{largesymbols}{\mathop}
1579 \fdsy@DeclareSymbol{\tbigotimes}{largesymbols}{\mathop}
1580 \fdsy@DeclareSymbol{\dbigotimes}{largesymbols}{\mathop}
1581 \fdsy@DeclareSymbol{\tbigodot}{largesymbols}{\mathop}
1582 \fdsy@DeclareSymbol{\dbigodot}{largesymbols}{\mathop}
1583 \fdsy@DeclareSymbol{\tbigoast}{largesymbols}{\mathop}
1584 \fdsy@DeclareSymbol{\dbigoast}{largesymbols}{\mathop}
1585 \iffdsy@sfop
```

```
1586  \fdsy@DeclareSymbol{\tvarprod}{largesymbols}{\mathop}
1587  \fdsy@DeclareSymbol{\dvarprod}{largesymbols}{\mathop}
1588  \fdsy@DeclareSymbol{\tprod}{largesymbols}{\mathop}
1589  \fdsy@DeclareSymbol{\dprod}{largesymbols}{\mathop}
1590  \fdsy@DeclareSymbol{\tvarcoprod}{largesymbols}{\mathop}
1591  \fdsy@DeclareSymbol{\dvarcoprod}{largesymbols}{\mathop}
1592  \fdsy@DeclareSymbol{\tcoprod}{largesymbols}{\mathop}
1593  \fdsy@DeclareSymbol{\dcoprod}{largesymbols}{\mathop}
1594  \fdsy@DeclareSymbol{\tvarsum}{largesymbols}{\mathop}
1595  \fdsy@DeclareSymbol{\dvarsum}{largesymbols}{\mathop}
1596  \fdsy@DeclareSymbol{\tsum}{largesymbols}{\mathop}
1597  \fdsy@DeclareSymbol{\dsum}{largesymbols}{\mathop}
1598  \fdsy@DeclareSymbol{\tvarosum}{largesymbols}{\mathop}
1599    \fdsy@DeclareAlias{\tvarmodtwosum}{largesymbols}{\mathop}
1600  \fdsy@DeclareSymbol{\dvarosum}{largesymbols}{\mathop}
1601    \fdsy@DeclareAlias{\dvarmodtwosum}{largesymbols}{\mathop}
1602  \fdsy@DeclareSymbol{\tosum}{largesymbols}{\mathop}
1603    \fdsy@DeclareAlias{\tmodtwosum}{largesymbols}{\mathop}
1604  \fdsy@DeclareSymbol{\dosum}{largesymbols}{\mathop}
1605    \fdsy@DeclareAlias{\dmodtwosum}{largesymbols}{\mathop}
1606 \else
1607  \fdsy@DeclareSymbol{\tprod}{largesymbols}{\mathop}
1608  \fdsy@DeclareSymbol{\dprod}{largesymbols}{\mathop}
1609  \fdsy@DeclareSymbol{\tvarprod}{largesymbols}{\mathop}
1610  \fdsy@DeclareSymbol{\dvarprod}{largesymbols}{\mathop}
1611  \fdsy@DeclareSymbol{\tcoprod}{largesymbols}{\mathop}
1612  \fdsy@DeclareSymbol{\dcoprod}{largesymbols}{\mathop}
1613  \fdsy@DeclareSymbol{\tvarcoprod}{largesymbols}{\mathop}
1614  \fdsy@DeclareSymbol{\dvarcoprod}{largesymbols}{\mathop}
1615  \fdsy@DeclareSymbol{\tsum}{largesymbols}{\mathop}
1616  \fdsy@DeclareSymbol{\dsum}{largesymbols}{\mathop}
1617  \fdsy@DeclareSymbol{\tvarsum}{largesymbols}{\mathop}
1618  \fdsy@DeclareSymbol{\dvarsum}{largesymbols}{\mathop}
1619  \fdsy@DeclareSymbol{\tosum}{largesymbols}{\mathop}
1620    \fdsy@DeclareAlias{\tmodtwosum}{largesymbols}{\mathop}
1621  \fdsy@DeclareSymbol{\dosum}{largesymbols}{\mathop}
1622    \fdsy@DeclareAlias{\dmodtwosum}{largesymbols}{\mathop}
1623  \fdsy@DeclareSymbol{\tvarosum}{largesymbols}{\mathop}
1624    \fdsy@DeclareAlias{\tvarmodtwosum}{largesymbols}{\mathop}
1625  \fdsy@DeclareSymbol{\dvarosum}{largesymbols}{\mathop}
1626    \fdsy@DeclareAlias{\dvarmodtwosum}{largesymbols}{\mathop}
1627 \fi
1628 \fdsy@DeclareSymbol{\tint}{largesymbols}{\mathop}
1629 \fdsy@DeclareSymbol{\dint}{largesymbols}{\mathop}
1630 \fdsy@DeclareSymbol{\tiint}{largesymbols}{\mathop}
```

```
1631 \fdsy@DeclareSymbol{\diint}{largesymbols}{\mathop}
1632 \fdsy@DeclareSymbol{\tiiint}{largesymbols}{\mathop}
1633 \fdsy@DeclareSymbol{\diiint}{largesymbols}{\mathop}
1634 \fdsy@DeclareSymbol{\tiiiint}{largesymbols}{\mathop}
1635 \fdsy@DeclareSymbol{\diiiint}{largesymbols}{\mathop}
1636 \fdsy@DeclareSymbol{\tidotsint}{largesymbols}{\mathop}
1637   \fdsy@DeclareAlias{\tdotsint}{largesymbols}{\mathop}
1638 \fdsy@DeclareSymbol{\didotsint}{largesymbols}{\mathop}
1639   \fdsy@DeclareAlias{\ddotsint}{largesymbols}{\mathop}
1640 \fdsy@DeclareSymbol{\tlandupint}{largesymbols}{\mathop}
1641   \fdsy@DeclareAlias{\tintclockwise}{largesymbols}{\mathop}
1642 \fdsy@DeclareSymbol{\dlandupint}{largesymbols}{\mathop}
1643   \fdsy@DeclareAlias{\dintclockwise}{largesymbols}{\mathop}
1644 \fdsy@DeclareSymbol{\tlanddownint}{largesymbols}{\mathop}
1645   \fdsy@DeclareAlias{\tawint}{largesymbols}{\mathop}
1646   \fdsy@DeclareAlias{\tintctrclockwise}{largesymbols}{\mathop}
1647 \fdsy@DeclareSymbol{\dlanddownint}{largesymbols}{\mathop}
1648   \fdsy@DeclareAlias{\dawint}{largesymbols}{\mathop}
1649   \fdsy@DeclareAlias{\dintctrclockwise}{largesymbols}{\mathop}
1650 \fdsy@DeclareSymbol{\tintbar}{largesymbols}{\mathop}
1651 \fdsy@DeclareSymbol{\dintbar}{largesymbols}{\mathop}
1652 \fdsy@DeclareSymbol{\tintBar}{largesymbols}{\mathop}
1653 \fdsy@DeclareSymbol{\dintBar}{largesymbols}{\mathop}
1654 \fdsy@DeclareSymbol{\tfint}{largesymbols}{\mathop}
1655 \fdsy@DeclareSymbol{\dfint}{largesymbols}{\mathop}
1656 \fdsy@DeclareSymbol{\toint}{largesymbols}{\mathop}
1657 \fdsy@DeclareSymbol{\doint}{largesymbols}{\mathop}
1658 \fdsy@DeclareSymbol{\toiint}{largesymbols}{\mathop}
1659 \fdsy@DeclareSymbol{\doiint}{largesymbols}{\mathop}
1660 \fdsy@DeclareSymbol{\toiiint}{largesymbols}{\mathop}
1661 \fdsy@DeclareSymbol{\doiiint}{largesymbols}{\mathop}
1662 \fdsy@DeclareSymbol{\trcirclerightint}{largesymbols}{\mathop}
1663   \fdsy@DeclareAlias{\tointctrclockwise}{largesymbols}{\mathop}
1664 \fdsy@DeclareSymbol{\drcirclerightint}{largesymbols}{\mathop}
1665   \fdsy@DeclareAlias{\dointctrclockwise}{largesymbols}{\mathop}
1666 \fdsy@DeclareSymbol{\tlcirclerightint}{largesymbols}{\mathop}
1667   \fdsy@DeclareAlias{\tvarointclockwise}{largesymbols}{\mathop}
1668 \fdsy@DeclareSymbol{\dlcirclerightint}{largesymbols}{\mathop}
1669   \fdsy@DeclareAlias{\dvarointclockwise}{largesymbols}{\mathop}
1670 \fdsy@DeclareSymbol{\trcircleleftint}{largesymbols}{\mathop}
1671   \fdsy@DeclareAlias{\tvarointctrclockwise}{largesymbols}{\mathop}
1672 \fdsy@DeclareSymbol{\drcircleleftint}{largesymbols}{\mathop}
1673   \fdsy@DeclareAlias{\dvarointctrclockwise}{largesymbols}{\mathop}
1674 \fdsy@DeclareSymbol{\tlcircleleftint}{largesymbols}{\mathop}
1675   \fdsy@DeclareAlias{\tointclockwise}{largesymbols}{\mathop}
```

```
1676 \fdsy@DeclareSymbol{\dlcircleleftint}{largesymbols}{\mathop}
1677   \fdsy@DeclareAlias{\dointclockwise}{largesymbols}{\mathop}
1678 \iffdsy@sfop
1679   \fdsy@DeclareSymbol{\tvarsumint}{largesymbols}{\mathop}
1680   \fdsy@DeclareSymbol{\dvarsumint}{largesymbols}{\mathop}
1681   \fdsy@DeclareSymbol{\tsumint}{largesymbols}{\mathop}
1682   \fdsy@DeclareSymbol{\dsumint}{largesymbols}{\mathop}
1683 \else
1684   \fdsy@DeclareSymbol{\tsumint}{largesymbols}{\mathop}
1685   \fdsy@DeclareSymbol{\dsumint}{largesymbols}{\mathop}
1686   \fdsy@DeclareSymbol{\tvarsumint}{largesymbols}{\mathop}
1687   \fdsy@DeclareSymbol{\dvarsumint}{largesymbols}{\mathop}
1688 \fi
1689 \let\intop\tint
1690 \let\ointop\toint
1691
1692 \fdsy@DeclareOperator{\bigplus}{\dbigplus}{\tbigplus}
1693 \fdsy@DeclareOperator{\bigtimes}{\dbigtimes}{\tbigtimes}
1694 \fdsy@DeclareOperator{\bigwedge}{\dbigwedge}{\tbigwedge}
1695 \fdsy@DeclareOperator{\bigvee}{\dbigvee}{\tbigvee}
1696 \fdsy@DeclareOperator{\bigwedgedot}{\dbigwedgedot}{\tbigwedgedot}
1697 \fdsy@DeclareOperator{\bigveedot}{\dbigveedot}{\tbigveedot}
1698 \fdsy@DeclareOperator{\bigdoublewedge}{\dbigdoublewedge}{\tbigdoublewedge}
1699 \fdsy@DeclareOperator{\conjquant}{\dconjquant}{\tconjquant}
1700 \fdsy@DeclareOperator{\bigdoublevee}{\dbigdoublevee}{\tbigdoublevee}
1701 \fdsy@DeclareOperator{\disjquant}{\ddisjquant}{\tdisjquant}
1702 \fdsy@DeclareOperator{\bigcurlywedge}{\dbigcurlywedge}{\tbigcurlywedge}
1703 \fdsy@DeclareOperator{\bigcurlyvee}{\dbigcurlyvee}{\tbigcurlyvee}
1704 \fdsy@DeclareOperator{\bigcurlywedgedot}{\dbigcurlywedgedot}{\tbigcurlywedgedot}
1705 \fdsy@DeclareOperator{\bigcurlyveedot}{\dbigcurlyveedot}{\tbigcurlyveedot}
1706 \fdsy@DeclareOperator{\bigdoublecurlywedge}{\dbigdoublecurlywedge}{\tbigdoublecurlywedge}
1707 \fdsy@DeclareOperator{\bigdoublecurlyvee}{\dbigdoublecurlyvee}{\tbigdoublecurlyvee}
1708 \fdsy@DeclareOperator{\bigcap}{\dbigcap}{\tbigcap}
1709 \fdsy@DeclareOperator{\bigcup}{\dbigcup}{\tbigcup}
1710 \fdsy@DeclareOperator{\bigcapdot}{\dbigcapdot}{\tbigcapdot}
1711 \fdsy@DeclareOperator{\bigcupdot}{\dbigcupdot}{\tbigcupdot}
1712 \fdsy@DeclareOperator{\bigcapplus}{\dbigcapplus}{\tbigcapplus}
1713 \fdsy@DeclareOperator{\bigcupplus}{\dbigcupplus}{\tbigcupplus}
1714 \fdsy@DeclareOperator{\biguplus}{\dbiguplus}{\tbiguplus}
1715 \fdsy@DeclareOperator{\bigsqcap}{\dbigsqcap}{\tbigsqcap}
1716 \fdsy@DeclareOperator{\bigsqcup}{\dbigsqcup}{\tbigsqcup}
1717 \fdsy@DeclareOperator{\bigsqcapdot}{\dbigsqcapdot}{\tbigsqcapdot}
1718 \fdsy@DeclareOperator{\bigsqcupdot}{\dbigsqcupdot}{\tbigsqcupdot}
1719 \fdsy@DeclareOperator{\bigsqcapplus}{\dbigsqcapplus}{\tbigsqcapplus}
1720 \fdsy@DeclareOperator{\bigsqcupplus}{\dbigsqcupplus}{\tbigsqcupplus}
```

```
1721 \fdsy@DeclareOperator{\bigoplus}{\dbigoplus}{\tbigoplus}
1722 \fdsy@DeclareOperator{\bigotimes}{\dbigotimes}{\tbigotimes}
1723 \fdsy@DeclareOperator{\bigodot}{\dbigodot}{\tbigodot}
1724 \fdsy@DeclareOperator{\bigoast}{\dbigoast}{\tbigoast}
1725 \fdsy@DeclareOperator{\prod}{\dprod}{\tprod}
1726 \fdsy@DeclareOperator{\varprod}{\dvarprod}{\tvarprod}
1727 \fdsy@DeclareOperator{\coprod}{\dcoprod}{\tcoprod}
1728 \fdsy@DeclareOperator{\varcoprod}{\dvarcoprod}{\tvarcoprod}
1729 \fdsy@DeclareOperator{\sum}{\dsum}{\tsum}
1730 \fdsy@DeclareOperator{\varsum}{\dvarsum}{\tvarsum}
1731 \fdsy@DeclareOperator{\osum}{\dosum}{\tosum}
1732 \fdsy@DeclareOperator{\varosum}{\dvarosum}{\tvarosum}
1733 \fdsy@DeclareOperator{\modtwosum}{\dmodtwosum}{\tmodtwosum}
1734 \fdsy@DeclareOperator{\varmodtwosum}{\dvarmodtwosum}{\tvarmodtwosum}
1735 \fdsy@DeclareIntegral{\iint}{\diint}{\tiint}
1736 \fdsy@DeclareIntegral{\iiint}{\diiint}{\tiiint}
1737 \fdsy@DeclareIntegral{\iiiint}{\diiiint}{\tiiiint}
1738 \fdsy@DeclareIntegral{\idotsint}{\didotsint}{\tidotsint}
1739 \fdsy@DeclareIntegral{\dotsint}{\ddotsint}{\tdotsint}
1740 \fdsy@DeclareIntegral{\landupint}{\dlandupint}{\tlandupint}
1741 \fdsy@DeclareIntegral{\intclockwise}{\dintclockwise}{\tintclockwise}
1742 \fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1743 \fdsy@DeclareIntegral{\awint}{\dawint}{\tawint}
1744 \fdsy@DeclareIntegral{\intctrclockwise}{\dintctrclockwise}{\tintctrclockwise}
1745 \fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1746 \fdsy@DeclareIntegral{\intbar}{\dintbar}{\tintbar}
1747 \fdsy@DeclareIntegral{\intBar}{\dintBar}{\tintBar}
1748 \fdsy@DeclareIntegral{\fint}{\dfint}{\tfint}
1749 \fdsy@DeclareIntegral{\oiint}{\doiint}{\toiint}
1750 \fdsy@DeclareIntegral{\oiiint}{\doiiint}{\toiiint}
1751 \fdsy@DeclareIntegral{\rcirclerightint}{\drcirclerightint}{\trcirclerightint}
1752 \fdsy@DeclareIntegral{\ointctrclockwise}{\dointctrclockwise}{\tointctrclockwise}
1753 \fdsy@DeclareIntegral{\lcirclerightint}{\dlcirclerightint}{\tlcirclerightint}
1754 \fdsy@DeclareIntegral{\varointclockwise}{\dvarointclockwise}{\tvarointclockwise}
1755 \fdsy@DeclareIntegral{\rcircleleftint}{\drcircleleftint}{\trcircleleftint}
1756 \fdsy@DeclareIntegral{\varointctrclockwise}{\dvarointctrclockwise}{\tvarointctrclockwise}
1757 \fdsy@DeclareIntegral{\lcircleleftint}{\dlcircleleftint}{\tlcircleleftint}
1758 \fdsy@DeclareIntegral{\ointclockwise}{\dointclockwise}{\tointclockwise}
1759 \fdsy@DeclareIntegral{\sumint}{\dsumint}{\tsumint}
1760 \fdsy@DeclareIntegral{\varsumint}{\dvarsumint}{\tvarsumint}
1761
1762 \def\intkern@{\mkern-8.5mu\mathchoice{\mkern-1mu}{}{}{}}
1763 \def\intdots@{\mkern-6mu%
1764   \mathchoice{\@cdots}%
1765   {{\cdotp}\mkern0.5mu{\cdotp}\mkern0.5mu{\cdotp}}%
```

```
1766    {{\cdotp}{\cdotp}{\cdotp}}%
1767    {{\cdotp}{\cdotp}{\cdotp}}%
1768    \mkern-6mu}
```

Math accents.

```
1769 \DeclareMathAccent{\widehat}{\mathord}{largesymbols}{"72}
1770 \DeclareMathAccent{\widetilde}{\mathord}{largesymbols}{"78}
1771 \DeclareMathAccent{\wideparen}{\mathord}{largesymbols}{"7E}
1772 \DeclareMathAccent{\vec}{\mathord}{largesymbols}{"84}
1773 \DeclareMathAccent{\middlebar}{\mathord}{largesymbols}{"85}
1774 \DeclareMathAccent{\middleslash}{\mathord}{largesymbols}{"86}
1775 \DeclareMathAccent{\strokethrough}{\mathord}{largesymbols}{"87}
```

FdSymbolF: delimiters

```
1776 \let\lfloor\undefined
1777 \let\rfloor\undefined
1778 \let\lceil\undefined
1779 \let\rceil\undefined
1780 \let\langle\undefined
1781 \let\rangle\undefined
1782 \iffdsy@largedelims
1783    \fdsy@DeclareOpen{(}{delimiters}{"01}
1784    \fdsy@DeclareClose{)}{delimiters}{"07}
1785    \fdsy@DeclareOpen{\lparen}{delimiters}{"01}
1786    \fdsy@DeclareClose{\rparen}{delimiters}{"07}
1787    \fdsy@DeclareOpen{[}{delimiters}{"13}
1788    \fdsy@DeclareClose{]}{delimiters}{"19}
1789    \fdsy@DeclareOpen{\lbrack}{delimiters}{"13}
1790    \fdsy@DeclareClose{\rbrack}{delimiters}{"19}
1791    \fdsy@DeclareOpen{\lfloor}{delimiters}{"1F}
1792    \fdsy@DeclareClose{\rfloor}{delimiters}{"25}
1793    \fdsy@DeclareOpen{\lceil}{delimiters}{"2B}
1794    \fdsy@DeclareClose{\rceil}{delimiters}{"31}
1795    \fdsy@DeclareOpen{\ulcorner}{delimiters}{"37}
1796    \fdsy@DeclareClose{\urcorner}{delimiters}{"3D}
1797    \fdsy@DeclareOpen{\llcorner}{delimiters}{"43}
1798    \fdsy@DeclareClose{\lrcorner}{delimiters}{"49}
1799    \fdsy@DeclareOpen{\ullcorner}{delimiters}{"4F}
1800    \fdsy@DeclareClose{\ulrcorner}{delimiters}{"55}
1801    \fdsy@DeclareOpen{\lsem}{delimiters}{"61}
1802    \fdsy@DeclareClose{\rsem}{delimiters}{"67}
1803    \fdsy@DeclareOpen{\lBrack}{delimiters}{"61}
1804    \fdsy@DeclareClose{\rBrack}{delimiters}{"67}
1805    \fdsy@DeclareOpen{\lbrace}{delimiters}{"73}
1806    \fdsy@DeclareClose{\rbrace}{delimiters}{"79}
1807    \fdsy@DeclareOpen{<}{delimiters}{"86}
1808    \fdsy@DeclareClose{>}{delimiters}{"8C}
```

```
1809    \fdsy@DeclareOpen{\langle}{delimiters}{"86}
1810    \fdsy@DeclareClose{\rangle}{delimiters}{"8C}
1811    \fdsy@DeclareOpen{\lAngle}{delimiters}{"92}
1812    \fdsy@DeclareClose{\rAngle}{delimiters}{"98}
1813    \fdsy@DeclareOpen{\langledot}{delimiters}{"9E}
1814    \fdsy@DeclareClose{\rangledot}{delimiters}{"A4}
1815    \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{"AA}
1816    \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{"AA}
1817    \DeclareMathSymbol{\divslash}{\mathbin}{delimiters}{"AA}
1818    \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{"B0}
1819    \expandafter\DeclareMathDelimiter\@backslashchar%
1820      {\mathord}{delimiters}{"B0}{delimiters}{"B0}
1821    \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{"B0}
1822    \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{"B7}
1823    \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{"B7}
1824    \fdsy@DeclareOpen{\lvert}{delimiters}{"B7}
1825    \fdsy@DeclareClose{\rvert}{delimiters}{"B7}
1826    \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{"B7}
1827    \DeclareMathSymbol{\nmid}{\mathrel}{delimiters}{"BA}
1828    \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{"BE}
1829    \fdsy@DeclareOpen{\lVert}{delimiters}{"BE}
1830    \fdsy@DeclareClose{\rVert}{delimiters}{"BE}
1831    \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{"BE}
1832    \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{"C1}
1833    \fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{"C4}
1834    \fdsy@DeclareOpen{\lVvert}{delimiters}{"C4}
1835    \fdsy@DeclareClose{\rVvert}{delimiters}{"C4}
1836 \else
1837    \fdsy@DeclareOpen{(}{delimiters}{"00}
1838    \fdsy@DeclareClose{)}{delimiters}{"06}
1839    \fdsy@DeclareOpen{\lparen}{delimiters}{"00}
1840    \fdsy@DeclareClose{\rparen}{delimiters}{"06}
1841    \fdsy@DeclareOpen{[}{delimiters}{"12}
1842    \fdsy@DeclareClose{]}{delimiters}{"18}
1843    \fdsy@DeclareOpen{\lbrack}{delimiters}{"12}
1844    \fdsy@DeclareClose{\rbrack}{delimiters}{"18}
1845    \fdsy@DeclareOpen{\lfloor}{delimiters}{"1E}
1846    \fdsy@DeclareClose{\rfloor}{delimiters}{"24}
1847    \fdsy@DeclareOpen{\lceil}{delimiters}{"2A}
1848    \fdsy@DeclareClose{\rceil}{delimiters}{"30}
1849    \fdsy@DeclareOpen{\ulcorner}{delimiters}{"36}
1850    \fdsy@DeclareClose{\urcorner}{delimiters}{"3C}
1851    \fdsy@DeclareOpen{\llcorner}{delimiters}{"42}
1852    \fdsy@DeclareClose{\lrcorner}{delimiters}{"48}
1853    \fdsy@DeclareOpen{\ullcorner}{delimiters}{"4E}
```

```
1854    \fdsy@DeclareClose{\ulrcorner}{delimiters}{"54}
1855    \fdsy@DeclareOpen{\lsem}{delimiters}{"60}
1856    \fdsy@DeclareClose{\rsem}{delimiters}{"66}
1857    \fdsy@DeclareOpen{\lBrack}{delimiters}{"60}
1858    \fdsy@DeclareClose{\rBrack}{delimiters}{"66}
1859    \fdsy@DeclareOpen{\lbrace}{delimiters}{"72}
1860    \fdsy@DeclareClose{\rbrace}{delimiters}{"78}
1861    \fdsy@DeclareOpen{<}{delimiters}{"85}
1862    \fdsy@DeclareClose{>}{delimiters}{"8B}
1863    \fdsy@DeclareOpen{\langle}{delimiters}{"85}
1864    \fdsy@DeclareClose{\rangle}{delimiters}{"8B}
1865    \fdsy@DeclareOpen{\lAngle}{delimiters}{"91}
1866    \fdsy@DeclareClose{\rAngle}{delimiters}{"97}
1867    \fdsy@DeclareOpen{\langledot}{delimiters}{"9D}
1868    \fdsy@DeclareClose{\rangledot}{delimiters}{"A3}
1869    \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{"A9}
1870    \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{"A9}
1871    \DeclareMathSymbol{\divslash}{\mathbin}{delimiters}{"A9}
1872    \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{"AF}
1873    \expandafter\DeclareMathDelimiter\@backslashchar%
1874        {\mathord}{delimiters}{"AF}{delimiters}{"AF}
1875    \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{"AF}
1876    \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{"B6}
1877    \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{"B6}
1878    \fdsy@DeclareOpen{\lvert}{delimiters}{"B6}
1879    \fdsy@DeclareClose{\rvert}{delimiters}{"B6}
1880    \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{"B6}
1881    \DeclareMathSymbol{\nmid}{\mathrel}{delimiters}{"B9}
1882    \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{"BD}
1883    \fdsy@DeclareOpen{\lVert}{delimiters}{"BD}
1884    \fdsy@DeclareClose{\rVert}{delimiters}{"BD}
1885    \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{"BD}
1886    \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{"C0}
1887    \fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{"C3}
1888    \fdsy@DeclareOpen{\lVvert}{delimiters}{"C3}
1889    \fdsy@DeclareClose{\rVvert}{delimiters}{"C3}
1890 \fi
1891 \let\|\Vert
1892 \let\divides\mid
1893 \let\ndivides\nmid
1894 \DeclareMathSymbol{\shortmid}{\mathrel}{delimiters}{"B5}
1895 \DeclareMathSymbol{\nshortmid}{\mathrel}{delimiters}{"B8}
1896 \DeclareMathSymbol{\shortparallel}{\mathrel}{delimiters}{"BC}
1897 \DeclareMathSymbol{\nshortparallel}{\mathrel}{delimiters}{"BF}
1898 \fdsy@DeclareDelimiter{\arrowvert}{\mathord}{delimiters}{"BB}
```

```
1899 \fdsy@DeclareDelimiter{\Arrowvert}{\mathord}{delimiters}{"C2}
1900 \fdsy@DeclareClose{\lgroup}{delimiters}{"7E}
1901 \fdsy@DeclareOpen{\rgroup}{delimiters}{"7F}
1902 \fdsy@DeclareClose{\rmoustache}{delimiters}{"80}
1903 \fdsy@DeclareOpen{\lmoustache}{delimiters}{"81}
1904 \fdsy@DeclareDelimiter{\bracevert}{\mathord}{delimiters}{"84}
1905 \let\uparrow\undefined
1906 \let\downarrow\undefined
1907 \let\updownarrow\undefined
1908 \let\Uparrow\undefined
1909 \let\Downarrow\undefined
1910 \let\Updownarrow\undefined
1911 \DeclareMathDelimiter{\uparrow}{\mathrel}{arrows}{"01}{delimiters}{"C6}
1912 \DeclareMathDelimiter{\downarrow}{\mathrel}{arrows}{"03}{delimiters}{"C7}
1913 \DeclareMathDelimiter{\updownarrow}{\mathrel}{arrows}{"11}{delimiters}{"C8}
1914 \DeclareMathDelimiter{\Uparrow}{\mathrel}{arrows}{"09}{delimiters}{"C9}
1915 \DeclareMathDelimiter{\Downarrow}{\mathrel}{arrows}{"0B}{delimiters}{"CA}
1916 \DeclareMathDelimiter{\Updownarrow}{\mathrel}{arrows}{"15}{delimiters}{"CB}
     Horizontal braces.
1917 \DeclareMathSymbol{\braceld}{\mathord}{delimiters}{"CC}
1918 \DeclareMathSymbol{\bracelu}{\mathord}{delimiters}{"CD}
1919 \DeclareMathSymbol{\bracerd}{\mathord}{delimiters}{"CE}
1920 \DeclareMathSymbol{\braceru}{\mathord}{delimiters}{"CF}
1921 \DeclareMathSymbol{\bracemd}{\mathord}{delimiters}{"D0}
1922 \DeclareMathSymbol{\bracemu}{\mathord}{delimiters}{"D1}
1923 \DeclareMathSymbol{\bracemid}{\mathord}{delimiters}{"D2}
1924
1925 \def\bracefill@#1#2#3#4#5{%
1926   $\m@th#5#1\leaders\hbox{$#4$}\hfill#2\leaders\hbox{$#4$}\hfill#3$%
1927 }
1928 \def\downbracefill@{\bracefill@\braceld\bracemd\bracerd\bracemid}
1929 \def\upbracefill@{\bracefill@\bracelu\bracemu\braceru\bracemid}
1930 \def\downgroupfill@{\bracefill@\braceld{}\bracerd\bracemid}
1931 \def\upgroupfill@{\bracefill@\bracelu{}\braceru\bracemid}
1932 \def\linesegmentfill@{\arrowfill@\leftfootline\relbar\rightfootline}
1933 \def\leftharpoonfill@{\arrowfill@\leftharpoondown\relbar\relbar}
1934 \def\rightharpoonfill@{\arrowfill@\relbar\relbar\rightharpoonup}
1935
1936 \DeclareRobustCommand{\overbrace}[1]{%
1937   \mathop{\mathpalette{\overarrow@\downbracefill@}{#1}}\limits%
1938 }
1939 \DeclareRobustCommand{\underbrace}[1]{%
1940   \mathop{\mathpalette{\underarrow@\upbracefill@}{#1}}\limits%
1941 }
1942 \DeclareRobustCommand{\overgroup}{\mathpalette{\overarrow@\downgroupfill@}}
```

```
1943 \DeclareRobustCommand{\undergroup}{\mathpalette{\underarrow@\upgroupfill@}}
1944 \DeclareRobustCommand{\overlinesegment}{\mathpalette{\overarrow@\linesegmentfill@}}
1945 \DeclareRobustCommand{\overleftharpoon}{\mathpalette{\overarrow@\leftharpoonfill@}}
1946 \DeclareRobustCommand{\overrightharpoon}{\mathpalette{\overarrow@\rightharpoonfill@}}
1947 \DeclareRobustCommand{\underlinesegment}{\mathpalette{\underarrow@\linesegmentfill@}}
```

Radical symbols.
```
1948 \iffdsy@largedelims
1949   \DeclareMathRadical{\sqrtsign}{delimiters}{"D4}{delimiters}{"D4}
1950   \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D4}
1951 \else
1952   \DeclareMathRadical{\sqrtsign}{delimiters}{"D3}{delimiters}{"D3}
1953   \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D3}
1954 \fi
```

In the *n*-th root, we don't want the *n* to come too close to the radical (adopted from package lucimatx).
```
1955 \def\r@@t#1#2{\setbox\z@\hbox{$\m@th#1\sqrt{#2}$}%
1956   \dimen@\ht\z@ \advance\dimen@-\dp\z@
1957   \mkern5mu\raise.6\dimen@\copy\rootbox \mkern-8mu\box\z@}
```

Mathchars.
```
1958 \DeclareMathSymbol{+}{\mathbin}{symbols}{"11}
1959 \DeclareMathSymbol{-}{\mathbin}{symbols}{"0E}
1960 \DeclareMathSymbol{*}{\mathbin}{symbols}{"98}
1961 \DeclareMathSymbol{:}{\mathrel}{symbols}{"02}
1962 \DeclareMathSymbol{=}{\mathrel}{relations}{"00}
1963 \DeclareMathSymbol{<}{\mathrel}{relations}{"24}
1964 \DeclareMathSymbol{>}{\mathrel}{relations}{"25}
1965 \iffdsy@largedelims
1966   \DeclareMathSymbol{|}{\mathord}{delimiters}{"B6}
1967   \DeclareMathSymbol{(}{\mathopen}{delimiters}{"01}
1968   \DeclareMathSymbol{)}{\mathclose}{delimiters}{"07}
1969   \DeclareMathSymbol{[}{\mathopen}{delimiters}{"13}
1970   \DeclareMathSymbol{]}{\mathclose}{delimiters}{"19}
1971   \DeclareMathSymbol{/}{\mathord}{delimiters}{"AA}
1972 \else
1973   \DeclareMathSymbol{|}{\mathord}{delimiters}{"B5}
1974   \DeclareMathSymbol{(}{\mathopen}{delimiters}{"00}
1975   \DeclareMathSymbol{)}{\mathclose}{delimiters}{"06}
1976   \DeclareMathSymbol{[}{\mathopen}{delimiters}{"12}
1977   \DeclareMathSymbol{]}{\mathclose}{delimiters}{"18}
1978   \DeclareMathSymbol{/}{\mathord}{delimiters}{"A9}
1979 \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.

```
1980 \def\c@ncel#1#2{\m@th\ooalign{$\hfil#1/\hfil$\crcr$#1#2$}}
1981 \def\not#1{\mathrel{\m@th\mathpalette\c@ncel{#1}}}
1982 ⟨/style⟩
```