FdSymbol: A Math Symbol Font

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1 Introduction

FdSymbol is a font of mathematical symbols designed as a companion to Typotheque's Fedra family¹, but it might also fit well to other contemporary typefaces. To use this font in a L⁴TEX document, add the command

\usepackage[\(\langle options \rangle] \{ fdsymbol \}

http://www.typotheque.com/fonts

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

Acknowledgements

The FdSymbol font is derived from MnSymbol², another math symbol font, designed by Achim Blumensath.

2 Interferences with other packages

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

3 Font selection

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

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

²http://www.ctan.org/pkg/mnsymbol/

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

KeyValuesnormalweightBook*, Regular, autoboldweightMedium*, Bold, autoscale⟨factor⟩		
boldweight Medium*, Bold, auto	Key	Values
largedelims true, false*	boldweight scale	(factor)

4 Symbols

The fdsymbol package provides the following symbols.

4.1 Ordinary symbols

- ··· \hdots
- : \vdots
- . · \udots, \adots
- ∴ \ddots
- : \righttherefore
- ∴ \uptherefore, \therefore
- ∴ \lefttherefore
- ∵ \downtherefore, \because
- :: \squaredots
- ¬ \neg, \lnot
- \backneg, \invnot, \invneg
- \turnedneg, \turnednot
- △ \largetriangleup
- √ \largetriangledown
- Ø \emptyset, \diameter,
 \varnothing
- \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
- ∡ \measuredangle
- \revmeasuredangle,
 \measuredangleleft
- ∢ \sphericalangle
- ∀ \sphericalangleup
- > \sphericalangleleft, \revsphericalangle,\gtlpar
- A \sphericalangledown
- ∟ \rightangle

\measuredrightangle ∄ \nexists \rightanglesquare, ∃ \Finv \rightanglesqr ∂ \Game \measuredrightangledot, С \complement \rightanglemdot \flat \prime å \natural \backprime \sharp # √ \checkmark א \aleph \lightning,\downzigzagarrow ם \beth ♦ \diamondsuit \gimel λ \vardiamondsuit → \daleth ♡ \heartsuit \wp ♥ \varheartsuit T \top ♠ \spadesuit ⊥ \bot ♠ \clubsuit /,\mathslash ★ \maltese \backslash ☆ \starofdavid |,\vert \sector Α \forall ∥ \Vert Э \exists ∥ \Vvert

4.2 Binary operators

∓ \mp

∔ \dotplus \cdot \centerdot \plusdot \hdotdot \vdotdot \udotdot * \divideontimes · \ddotdot → \intprod -,\minus └ \intprodr \medslash, \smalldivslash \leftthreetimes \medbackslash, \smallsetminus \rightthreetimes + +, \plus × \times \dotminus x \utimes, \ttimes \minusdot \div ⋈ \lrtimes ÷ \minusfdots x \upbowtie,\hourglass \minusrdots \rightY \pm ↓\upY ±

≺ \leftY

- Y \downY
- ∧ \wedge,\land
- v \vee, \lor
- ∧ \wedgedot
- v \veedot
- m \doublewedge, \wedgeonwedge
- w \doublevee, \veeonwee
- ∧ \curlywedge
- √ \curlyvee

- ∪ \cup
- ∩ \cap
- ⊎ \doublecup, \Cup

- ∩ \capdot
- ⊎ \cupplus, \uplus
- ∩ \capplus
- ⊔ \sqcup
- □ \sqcap
- □ \doublesqcup, \Sqcup
- ⊔ \sqcupdot
- ⊓ \sqcapdot

- → \pullback

- ▷ \smalltriangleright
- △ \smalltriangleup
- \smalltriangleleft
- √ \smalltriangledown
- \smallblacktriangleright
- ▲ \smallblacktriangleup
- √ \smallblacktriangleleft
- ▼ \smallblacktriangledown

- △ \medtriangleup, \triangle, \vartriangle

- \medblacktriangleright,
 \blacktriangleright
- ▲ \medblacktriangleup, \blacktriangle
- \medblacktriangledown, \blacktriangledown

- o \smallcircle, \circ, \smwhtcircle
- \smallblackcircle, \bullet, \smblkcircle
- o \medcircle, \mdlgwhtcircle, \mdwhtcircle
- \medblackcircle, \mdlgblkcircle,\mdblkcircle
- ⊖ \ominus
- ⊘ \oslash
- ⊕ \oplus
- ⊗ \otimes
- ⊙ \odot

- ⊖ \odash.\circleddash
- \bigcirc
- smallsquare,\smwhtsquare
- \smallblacksquare, \smblksquare
- □ \medsquare, \square, \Box, \mdlgwhtsquare, \mdwhtsquare

\medblacksquare,
\mdlgblksquare,\mdblksquare

□ \boxminus

□ \boxvert, \boxbar

\boxslash, \boxdiag

□ \boxdot

□ \boxbox

\smwhtdiamond

♦ \smallblackdiamond,

\blackdiamond, \smblkdiamond

\meddiamond, \Diamond,
 \mdlgwhtdiamond,

\mdwhtdiamond

♦ \medblackdiamond,

\mdlgblkdiamond,
\mdblkdiamond

♦ \diamondminus

♦ \diamondvert

♦ \diamondbackslash, \diamondbslash

♦ \diamondplus

♦ \diamondtimes

♦ \diamonddot, \diamondcdot

♦ \diamonddiamond

☆ \smallwhitestar, \smwhitestar

⋆ \smallblackstar,\star

☆ \medwhitestar

★ \medblackstar, \medstar

* *,\ast

⊺ \intercal

\wreath, \wr

ц \amalg

ı \varamalg

√ \lhd

⊴ \unlhd

≥ \unrhd

/ \divslash

\\setminus

4.3 Relations

≂

≅

≌

≊

≟ \dotcong ≅ \smileeq

\approxeq \(\sigma\) \frowneq, \arceq

 $\stackrel{\scriptstyle \scriptscriptstyle \perp}{}$ \veeeq ⊑ \sqsubseteqq ***** \stareq \sqsupseteqq \triangleeq, \triangleq \Sqsubset \in \in 3 **\Sqsupset** \owns, \ni \subset ∋ \subset <,\less \supset < \supset >, \gtr \subseteq > \subseteq \leq, \le \supseteq \supseteq ≤ \geq, \ge \subseteqq ≥ \leqslant \supseteqq ≤ \geqslant **\Subset** ≽ \Supset ≦ \leqq \geqq \prec ≥ ≲ \lesssim \succ \gtrsim \preceq ≳ ≤ ≨ \lessapprox \succeq ≥ ≳ \gtrapprox \preccurlyeq ≶ \lessgtr \succcurlyeq ≷ \gtrless \preceqq ⋚ \lesseggtr \succeqq ⋛ \gtreqless \precsim VIIV VIIV \lesseqqgtr \succsim ≿ \gtreqqless \precapprox ≶ \lesseqslantgtr, \lesq \succapprox ⋛ \gtreqslantless, \gesl \lessdot ≪ \11 \gtrdot \leqdot \gg ⊴ >>> ≪ \lll, \llless \geqdot \legslantdot, \lesdot >>> \ggg, \gggtr \lessclosed, \vartriangleleft \geqslantdot, \gesdot ◁ \gtrclosed, \vartriangleright \eqslantless \triangleright \leqclosed, \trianglelefteq \eqslantgtr ⊴ \geqclosed, \trianglerighteq \curlyeqprec ⊵ \lesscc, \ltcc \curlyeqsucc ◁ \gtrcc, \gtcc \thicksim \triangleright \leqslcc, \lescc \thickapprox Ø \geqslcc, \gescc \rightarrow, \to ⊳ \sqsubset \uparrow 1

 \downarrow

\leftarrow, \gets

\downarrow

\nearrow

⊐

⊑

\sqsupset

\sqsubseteq

\sqsupseteq

- \nwarrow
- ∠ \swarrow
- \searrow
- ⇒ \Rightarrow
- ↑ \Uparrow
- ← \Leftarrow
- ↓ \Downarrow
- √ \Nwarrow
- \Searrow
- ↔ \leftrightarrow
- 1 \updownarrow
- √ \neswarrow
- \nwsearrow
- ⇔ \Leftrightarrow
- () \Updownarrow

- → \twoheadrightarrow
- ↑ \twoheaduparrow
- ← \twoheadleftarrow
- ↓ \twoheaddownarrow

- √ twoheadsearrow
- \rightarrow \rightarrowtail
- ↑ \uparrowtail
- \downarrowtail
- → \nearrowtail
- \nwarrowtail
- √ \searrowtail
- ↑ \upmapsto, \mapsup
- ← \leftmapsto, \mapsfrom
- ↓ \downmapsto, \mapsdown
- ⇒ \Rightmapsto,\Mapsto
- ↑ \Upmapsto, \Mapsup

- ← \Leftmapsto, \Mapsfrom
- → \hookrightarrow
- ↑ \hookuparrow
- ← \varhookleftarrow
- \$ \varhookdownarrow
- 5 \hooknwarrow, \hknwarrow
- ∠ \varhookswarrow
- \hooksearrow, \hksearrow
- → \varhookrightarrow
- t \varhookuparrow
- 1 \hookdownarrow
- ∠ \hooknearrow, \hknearrow
- \varhooknwarrow
- ∠ \hookswarrow, \hkswarrow
- \varhooksearrow
- → \rightharpoonup
- 1 \upharpoonleft
- ← \leftharpoondown
- l \downharpoonright
- / \neharpoonnw
- \ nwharpoonsw
- ∠ \swharpoonse
- \ \seharpoonne
- → \rightharpoondown
- \upharpoonright,\restriction
- ← \leftharpoonup
- \downharpoonleft
- ✓ \neharpoonse
- \nwharpoonne
- ✓ \swharpoonnw
- √ \seharpoonsw
- → \leftrightharpoonupdown
- 1 \updownharpoonleftright
- z \neswharpoonnwse
- \nwseharpoonnesw
- → \leftrightharpoondownup
- \updownharpoonrightleft
- ✓ \neswharpoonsenw

- \nwseharpoonswne
- 1 \updownharpoons,
 \updownharpoonsleftright

- ≒ \leftrightharpoons
- ↑ \downupharpoons, \downupharpoonsleftright
- √ \swneharpoons
- \nwseharpoons
- → \rightbkarrow, \dashrightarrow, \dasharrow
- ↑ \upbkarrow
- ↓ \downbkarrow
- ^* \nebkarrow
- \nwbkarrow
- ∡′\swbkarrow
- ` \sebkarrow
- → \rightspoon,\multimap
- ↑ \upspoon,\cirmid

- → \rightblackspoon
- † \upblackspoon
- ← \leftblackspoon
- ↓ \downblackspoon
- → \leftrightspoon, \dualmap
- → \leftrightblackspoon
- ⊶ \whiteblackspoon, \origof
- → \rightpitchfork
- ₼ \uppitchfork,\pitchfork
- ← \leftpitchfork
- Ψ \downpitchfork
- ⇒ \rightrightarrows
- ↑ \upuparrows
- ↓ \downdownarrows
- ク \nenearrows

- √ \nwnwarrows
- √ \swswarrows
- √ \sesearrows
- ↑↓ \updownarrows
- √ \nwsearrows
- ≒ \leftrightarrows
- ↓↑ \downuparrows
- √ \swnearrows
- √ \senwarrows
- → \rightwavearrow, \leadsto, \rightsquigarrow, \rightcurvedarrow
- \varupwavearrow
- \downwavearrow
- → \varrightwavearrow
- \upwavearrow
- ← \leftwavearrow,
 \leftsquigarrow,
 \leftcurvedarrow

- \$ \updownwavearrow
- \$ \varupdownwavearrow
- ~ \cwoverarcarrow, \curvearrowright
- '\cwleftarcarrow
- ∼ \cwunderarcarrow
- \cwrightarcarrow
- - \rightupcurvedarrow
- た \cwswarcarrow, \upleftcurvedarrow
- √ \cwsearcarrow,
 - \leftdowncurvedarrow
- - \downrightcurvedarrow

- → \acwunderarcarrow
- 5 \acwrightarcarrow
- \acwleftarcarrow
- → \acwsearcarrow, \uprightcurvearrow
- \ \acwnearcarrow, \leftupcurvedarrow
- \acwswarcarrow,
 \rightdowncurvedarrow
- ₹ \bdleftarcarrow
- > \bdrightarcarrow
- ♦ \bdswarcarrow
- ♪ \bdsearcarrow
- ⊢ \leftfootline
- → \rightfootline
- \acwcirclearrowleft,
 \circlearrowleft,
 \acwopencirclearrow
- \acwcirclearrowright
- C \cwcirclearrowdown, \cwgapcirclearrow
- \cwcirclearrowright,
 \circlearrowright,
 \cwopencirclearrow
- \cwcirclearrowleft
- ⇒ \Rrightarrow
- ↑ \Uuparrow
- ← \Lleftarrow
- ↓ \Ddownarrow

- → \longrightarrow
- ← \longleftarrow
- ⇒ \Longrightarrow
- ← \Longleftarrow
- $\longleftrightarrow \label{longleftrightarrow}$
- ⇔ \Longleftrightarrow
- → \longmapsto
- ← \longmapsfrom
- ← \Longmapsfrom
- \two \longleftwavearrow,
 \longleftsquigarrow
- ├─ \longleftfootline, \vlongdash
- ─ \longrightfootline, \longdashv
- ← \Lsh
- r \Rsh
- ↓ \Ldsh
- \Rdsh
- → \looparrowright
- ← \looparrowleft
- ⊢ \rightvdash, \vdash
- ⊥ \upvdash, \perp
- ⊢ \leftvdash, \dashv
- T \downvdash
- ⊢ \rightassert, \assert, \shortrighttack
- ⊥ \upassert,\shortuptack
- ⊣ \leftassert, \shortlefttack
- → \downassert, \shortdowntack
- ⊨ \rightvDash,\vDash
- ╡ \leftvDash,\Dashv
- ⊨ \rightmodels, \models
- ⊥ \upmodels
- ╡ \leftmodels
- π \downmodels

 \perp \upVdash \neq \neqcirc \dashv \leftVdash, \dashV \neq \ncirceq

\nsimeq, \nsime
\nsimeq, \nsime
\nbacksimeq
\nlesseqgtr
\neqsim
\ncong
\nlesseqqgtr
\nbackcong
\ngtreqqless

⊉ \nsqsupseteq \lnsim ⋦ ⋢ \nsqsubseteqq ⋧ \gnsim \lnapprox ∄ \nsqsupseteqq ≨ ⊯ \nSqsubset \gnapprox ≩ \nSqsupset \sqsubsetneq ∌ ⋤ \nsubset ¢ ⋥ \sqsupsetneq ⊅ \nsupset \sqsubsetneqq ⊈ \nsubseteq \sqsupsetneqq

⊉ \nsupseteq \subsetneq, \varsubsetneq ⊊ \supsetneq, \varsupsetneq ⊈ \nsubseteqq ⊋ ⊉ \nsupsetegg \subsetnegg, \varsubsetnegg ⊊ ∉ \nSubset ⊋ \supsetneqq, \varsupsetneqq

∌ \nSupset \precneq ⋨ * \nprec \succneq ≱ * \nsucc \precneqq ≨ \npreceq ≭ \succneqq ≩ \nsucceq ¥ \precnsim ⋨ ⋠ \npreccurlyeq \succnsim ¥ \nsucccurlyeq \precnapprox ≰ \npreceqq \succnapprox ≨ ¥ \nsucceqq \nrightarrow, \nto

\nprecsim \(\pm \) \nuparrow

≴

\ndownarrow ≵ \nprecapprox ŧ ≵ \nsuccapprox \nnearrow ≮: \nlessdot \nnwarrow \ngtrdot \nswarrow ≯ ≰ \nleqdot \nsearrow \ngeqdot \nRightarrow ≱ \nleqslantdot, \nlesdot ≰ \nUparrow \ngeqslantdot, \ngesdot \nLeftarrow

≱ ŧ \neqslantless \nDownarrow \neqslantgtr \nNearrow ≱ \ncurlyeqprec \nNwarrow ≠ \ncurlyeqsucc \nSwarrow ⋡ X \simneqq ≆ \nSearrow

- \u00e7\u00e4nnwsearrow
- ⇔ \nLeftrightarrow
- ∄ \nUpdownarrow
- ⅓ \nNwsearrow
- />> \ntwoheadrightarrow
- ↑ \ntwoheaduparrow
- \ntwoheadleftarrow
- √ \ntwoheadnearrow
- ∿ \ntwoheadnwarrow
- پر \ntwoheadswarrow
- ¼ \ntwoheadsearrow
- → \nrightarrowtail
- ↑ \nuparrowtail
- ⟨⟨√ ⟨ nleftarrowtail |
- ₹ \ndownarrowtail
- √ \nnearrowtail
- ∿ \nnwarrowtail
- ⅓ \nsearrowtail
- ↑ \nupmapsto, \nmapsup
- ← \nleftmapsto, \nmapsfrom
- ₹ \ndownmapsto,\nmapsdown
- ↑ \nUpmapsto, \nMapsup

- √ \nhookrightarrow
- ↑ \nhookuparrow
- ↔ \nvarhookleftarrow
- √ \nvarhooknearrow
- √s \nhooknwarrow, \nhknwarrow
- ∿ \nhooksearrow, \nhksearrow
- → \nvarhookrightarrow
- ↑ \nvarhookuparrow
- ↔ \nhookleftarrow
- † \nhookdownarrow

- \nhooknearrow, \nhknearrow
- ∿ \nvarhooknwarrow
- √ \nvarhooksearrow
- → \nrightharpoonup
- 1 \nupharpoonleft
- → \nleftharpoondown
- t \ndownharpoonright
- √ \nneharpoonnw
- \nnwharpoonsw
- x \nswharpoonse
- ¼ \nseharpoonne
- → \nrightharpoondown
- \nupharpoonright,
 \nrestriction
 - \nleftharpoonup
- √ \nneharpoonse
- \nnwharpoonne
- √ \nseharpoonsw
- + \nleftrightharpoonupdown
- 1 \nupdownharpoonleftright
- x \nneswharpoonnwse
- √ \nnwseharpoonnesw
- → \nleftrightharpoondownup
- ↑ \nupdownharpoonrightleft
- \nnwseharpoonswne
- ₩ \nupdownharpoons,

\nupdownharpoonsleftright

- ∜ \nleftrightharpoons
- ∦ \ndownupharpoons,

\ndownupharpoonsleftright

- \nnwseharpoons
- -/> \nrightbkarrow, \ndasharrow,
 \ndashrightarrow

- ↑ \nupbkarrow
- ←/- \nleftbkarrow, \ndashleftarrow
- \nnebkarrow
- √ \nswbkarrow
- √ \nsebkarrow
- → \nrightspoon, \nmultimap
- ♀ \nupspoon,\ncirmid
- → \nleftspoon, \nmultimapinv
- t \ndownspoon, \nmidcir
- √ \nrightblackspoon
- nupblackspoon
- → \nleftblackspoon
- t \ndownblackspoon
- → \nleftrightspoon, \ndualmap
- → \nleftrightblackspoon
- → \nblackwhitespoon, \nimageof
- √→ \nwhiteblackspoon, \norigof
- → \nrightpitchfork
- → \nuppitchfork, \npitchfork
- → \nleftpitchfork
- ♥ \ndownpitchfork
- ↑ \nupuparrows

- ♦ \nnenearrows
- √ \nnwnwarrows
- √ \nswswarrows

- ↑ \nupdownarrows
- √ \nnwsearrows
- ♯ \nleftrightarrows
- ♯ \ndownuparrows
- ⋄ \nswnearrows

- \$ \nvarupwavearrow
- √ \nvarleftwavearrow
- √ \nvarrightwavearrow
- \$ \nupwavearrow

- √ \nleftrightwavearrow,
 \nleftrightsquigarrow
- ↑ \nupdownwavearrow
- ⟨→ \nvarleftrightwavearrow
- \$ \nvarupdownwavearrow
- ↑ \ncwoverarcarrow, \ncurvearrowright
- ₹ \ncwleftarcarrow
- √ \ncwunderarcarrow

\nrightupcurvedarrow

- た \ncwswarcarrow,
 - \nupleftcurvedarrow
- √ \ncwsearcarrow,

\nleftdowncurvedarrow

- - \ndownrightcurvedarrow
- → \nacwunderarcarrow
- 5 \nacwrightarcarrow
- ₼ \nacwoverarcarrow, \ncurvearrowleft
- ⟨ \nacwleftarcarrow |
- ♪ \nacwsearcarrow,

\nuprightcurvearrow

- ⟨ \nacwnearcarrow,
 - \nleftupcurvedarrow

\ndownleftcurvedarrow

- \nacwswarcarrow,
 \nrightdowncurvedarrow
- √ \nbdoverarcarrow
- ₹ \nbdleftarcarrow
- √ \nbdunderarcarrow
- > \nbdrightarcarrow
- ⅓ \nbdswarcarrow
- ∢ \nbdsearcarrow

- → \nrightfootline
- \nacwcirclearrowup
- \nacwcirclearrowleft,
 \ncirclearrowleft,
 \nacwopencirclearrow
- \nacwcirclearrowdown, \nacwgapcirclearrow
- \ncwcirclearrowdown,
 \ncwgapcirclearrow
- \times \ncwcirclearrowright,
 \ncirclearrowright,
 \ncwopencirclearrow
- ♠ \ncwcirclearrowup
- ∅ \ncwcirclearrowleft
- ⇒ \nRrightarrow
- ↑ \nUuparrow
- **⊭** \nLleftarrow
- → \nlongrightarrow
- ← \nlongleftarrow
- → \nLongrightarrow
- ← \nLongleftarrow
- ←→ \nlongleftrightarrow
- ← \nLongleftrightarrow
- ←→ \nlongmapsfrom
- ← \nLongmapsfrom

- \nlongrightwavearrow,
 \nlongleadsto,
 \nlongrightsquigarrow

- → \nlongrightfootline, \nlongdashv
- ⊬ \nrightvdash,\nvdash

- ₹ \ndownvdash
- / \nrightassert, \nassert,
 \nshortrighttack
- # \nleftassert, \nshortlefttack
- → \ndownassert, \nshortdowntack
- ⊭ \nrightvDash,\nvDash
- # \nleftvDash, \nDashv
- # \nrightmodels, \nmodels
- 业 \nupmodels
- # \nleftmodels
- ₩ \ndownmodels
- I⊬ \nrightVdash,\nVdash
- ₼ \nleftVdash, \ndashV
- ₹ \ndownVdash

- ∦ \nleftAssert
- ₹ \ndownAssert, \nBarv
- ⊯ \nrightVDash,\nVDash
- # \nleftVDash, \nDashV
- ₹ \ndownVDash
- II⊬ \nVvdash
- ∦ll \ndashVv
- ⊭ \nvDdash

♯ \nDdashv \times \crossing :,\mathratio \between ∷ \Colon \shortmid \relbar \mid, \divides \nshortmid ⋈ \rJoin \nmid, \ndivides ∥ \parallel ⋈ \bowtie,\Join ∦ \nshortparallel ∦ \nparallel

4.4 Punctuation symbols

· \cdotp : \colon, \mathcolon

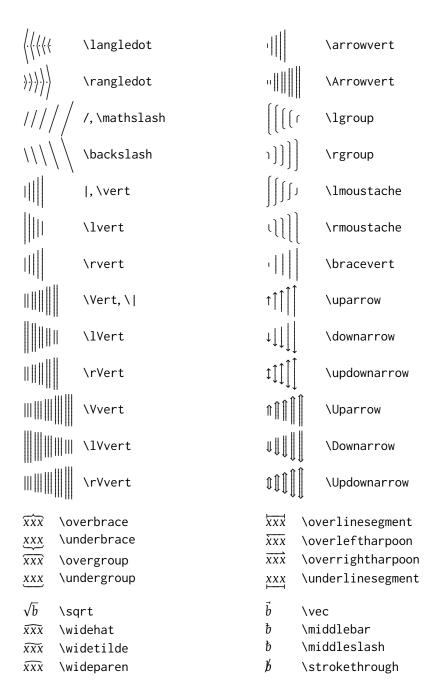
4.5 Large operators

+ × ^	+ ×	\bigplus \bigtimes \bigwedge	± ⊕ ⊗	+	\bigsqcupplus \bigoplus \bigotimes
V	$\langle \rangle$	\bigvee	\odot	\odot	\bigodot
Å	Å	\bigwedgedot	⊗	$\widetilde{\mathbb{A}}$	\bigoast
Y	\·\	\bigveedot	П	\prod	\prod
M	$\dot{\mathbb{M}}$	\bigdoublewedge,	П	Π	\varprod
	\\ //	\conjquant	\coprod	Ϊİ	\coprod
W	W	\bigdoublevee,\disjquant	Ц	П	\varcoprod
人	λ	\bigcurlywedge	Σ	\sum	\sum
Υ	Υ	\bigcurlyvee	Σ	\succeq	\varsum
\cap	\bigcap	\bigcap	<u>ک</u>	~	\osum, \modtwosum
U	ĺ	\bigcup	>	5	
\cap	$\check{\cap}$	\bigcapdot	2	<u>8</u>	\varosum,\varmodtwosum
U	$[\cdot]$	\bigcupdot	ſ	J	\int
+	(+)	\bigcapplus	\iint	\prod	\iint
+	[+]	\bigcupplus,\biguplus	ιιι	ررر	\ :::: t
П	Ň	\bigsqcap	\iiint	JJJ	\iiint
	Ĺ	\bigsqcup	\iiint	\iiint	\iiiint
$\lceil \cdot \rceil$	$\lceil \cdot \rceil$	\bigsqcapdot	اا]]	\idotsint,\dotsint
oxdot	$ \cdot $	\bigsqcupdot	, ,	ر کا	(Tabesine, (abesine
+	+	\bigsqcapplus	f	ţ	\landupint,\intclockwise

```
\varointclockwise
\landdownint, \awint,
                                  \rcircleleftint,
 \intctrclockwise
                                   \varointctrclockwise
\intbar
                                  \lcircleleftint,
\intBar
                                   \ointclockwise
\fint
                                  \sumint
\oint
                                  \varsumint
                                  \smallprod
\oiint
                         П
                              П
                                  \varsmallprod
                         П
\oiiint
                                  \smallcoprod
                         П
                             П
\varsmallcoprod
                         ш
                              ш
 \ointctrclockwise
                                  \smallint
                         ſ
                             ſ
\lcirclerightint,
                                  \surd
```

4.6 Delimiters and accents

1.			
(((((,\lparen	الررب	\lrcorner
)))))),\rparen		\ullcorner
[[[[[[,\lbrack	ار _{دو} . ساما	\ulrcorner
]]]]]],\rbrack		\lsem,\lBrack
	\lfloor		\rsem,\rBrack
	\rfloor	$\bigg\{ \bigg\{ \big\{ \big\{ \big\{ \big\} \bigg\}$	\lbrace,\{
	\lceil	}}}}	\rbrace,\}
1]]]]	\rceil	$\langle \langle $	\langle
LLLL.	\ulcorner	$\rangle\rangle\rangle\rangle$	\rangle
7777	\urcorner	\\\\\	\lAngle
LLLL	\llcorner	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	\rAngle



4.7 Faked symbols

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

\Bbbk \dagger ℜ \Re ‡ \ddagger \mathparagraph ℑ \Im \mathsection ħ \hbar 1 \$ ħ \hslash \mathdollar £ \mathsterling (R) \circledR (S) \circledS ¥ \yen

4.8 Missing symbols

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

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

\digamma \lhook

5 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}
```

```
 \\ \$ \end{tabular} \{ scale \} \{ \end{tabular} \} \\ \end{tabular}
```

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
```

```
\renewcommand\fdsy@mweight@normal{Regular}%
18
      \renewcommand\fdsy@mweight@small{Regular}%
19
20
      \renewcommand\fdsy@mweight@normal{Book}%
21
      \renewcommand\fdsy@mweight@small{Regular}%
22
23
   \fi
24 }
25 \fdsy@choicekey{boldweight}{medium,bold,auto}{%
    \ifcase\@tempb\relax
27
      \renewcommand\fdsy@bweight@normal{Medium}%
      \renewcommand\fdsy@bweight@small{Medium}%
28
29
      \renewcommand\fdsy@bweight@normal{Bold}%
      \renewcommand\fdsy@bweight@small{Bold}%
31
32
      \renewcommand\fdsy@bweight@normal{Medium}%
33
      \renewcommand\fdsy@bweight@small{Bold}%
34
    \fi
35
36 }
37 \ExecuteOptionsX{largedelims=false}
38 \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.

```
39 \@ifpackageloaded{amsmath}{}{\RequirePackage{amsmath}}
40 \@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.

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

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

```
46 \DeclareRobustCommand{\dagger}{\fdsy@text{\textdagger}}
47 \DeclareRobustCommand{\ddagger}{\fdsy@text{\textdaggerdbl}}
48 \DeclareRobustCommand{\mathparagraph}{\fdsy@text{\textparagraph}}
49 \DeclareRobustCommand{\mathsection}{\fdsy@text{\textsection}}
50 \DeclareRobustCommand{\mathdollar}{\fdsy@text{\textdollar}}
51 \DeclareRobustCommand{\mathsterling}{\fdsy@text{\textsterling}}
52 \DeclareRobustCommand{\yen}{\fdsy@text{\textsterling}}
53 \DeclareRobustCommand{\circledR}{\fdsy@text{\textcircled{%}}
4 \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont R}}}
55 \DeclareRobustCommand{\circledS}{\fdsy@text{\textcircled{%}}}
```

```
56 \check@mathfonts\fontsize\sf@size\z@\math@fontsfalse\selectfont S}}}
 57 \DeclareRobustCommand{\Re}{\mathfrak{R}}
 58 \DeclareRobustCommand{\Im}{\mathfrak{I}}
 59 \DeclareRobustCommand{\dotcong}{\mathrel{\dot{\cong}}}
 \label{lem:command_thicksim} $$ \operatorname{\command_thicksim}_{\text{\command}} $$ oo \operatorname{\command_thicksim}_{\text{\command}} $$
 61 \DeclareRobustCommand{\thickapprox}{\mathrel{\text{\boldmath$\m@th\approx$}}}}
 62 \let\hbar\undefined
 63 \let\hslash\undefined
 64 \DeclareRobustCommand{\hbar}{\middlebar h}
 65 \DeclareRobustCommand{\hslash}{\middleslash h}
 Unneeded partial symbols.
 67 \let\mapstochar\undefined
 68 \let\lhook\undefined
69 \let\rhook\undefined
Shorthands to simplify the definitions below.
 70 \newcommand\fdsy@setslot[1]{\@tempcnta #1\relax}
 71 \newcommand\fdsy@nextslot{\advance\@tempcnta 1\relax}
 72 \newcommand\fdsy@prevslot{\advance\@tempcnta-1\relax}
 74 \newcommand\fdsy@@DeclareSymbol[4]{\DeclareMathSymbol{#2}{#3}{#4}{#1}}
 75 \newcommand\fdsy@DeclareSymbol[3]{%
 76 \if\relax\noexpand#1\let#1\undefined\fi
    77
 78 \fdsy@nextslot
 79 }
 80 \newcommand\fdsy@DeclareAlias[3]{\fdsy@prevslot\fdsy@DeclareSymbol{#1}{#2}{#3}}
 81 \newcommand\fdsy@DeclareOperator[3]{\def#1{\DOTSB#3\slimits@}}
 82 \newcommand\fdsy@DeclareIntegral[3]{\def#1{\DOTSI#3\ilimits@}}
 83 \newcommand\fdsy@DeclareDelimiter[4]{%
    \if\relax\noexpand#1\let#1\undefined\fi
    \DeclareMathDelimiter{#1}{#2}{#3}{#4}{#3}{#4}%
 87 \newcommand\fdsy@DeclareOpen[3]{\fdsy@DeclareDelimiter{#1}{\mathopen}{#2}{#3}}
 88 \newcommand fdsy@DeclareClose[3]{\fdsy@DeclareDelimiter{\#1}{\mathclose}{\#2}{\#3}} \\
Font definitions.
 89 \DeclareFontFamily{U}{FdSymbolA}{}
 90 \DeclareFontFamily{U}{FdSymbolB}{}
 91 \DeclareFontFamily{U}{FdSymbolC}{}
 92 \DeclareFontFamily{U}{FdSymbolD}{}
 93 \DeclareFontFamily{U}{FdSymbolE}{}
 94 \DeclareFontFamily{U}{FdSymbolF}{}
 96 \DeclareFontShape{U}{FdSymbolA}{m}{n}{
```

```
<-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@mweight@small
97
      <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@mweight@normal
98
99 }{}
100 \DeclareFontShape{U}{FdSymbolA}{b}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolA-\fdsy@bweight@small
102
      <7.1-> s * [\fdsy@scale] FdSymbolA-\fdsy@bweight@normal
103 }{}
104 \DeclareFontShape{U}{FdSymbolB}{m}{n}{
105
      <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@mweight@small
106
      <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@mweight@normal
107 }{}
108 \DeclareFontShape{U}{FdSymbolB}{b}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolB-\fdsy@bweight@small
      <7.1-> s * [\fdsy@scale] FdSymbolB-\fdsy@bweight@normal
110
111 }{}
112 \DeclareFontShape{U}{FdSymbolC}{m}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@mweight@small
      <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@mweight@normal
114
115 }{}
116 \DeclareFontShape{U}{FdSymbolC}{b}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolC-\fdsy@bweight@small
117
118
      <7.1-> s * [\fdsy@scale] FdSymbolC-\fdsy@bweight@normal
119 }{}
120 \DeclareFontShape{U}{FdSymbolD}{m}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@mweight@small
121
122
      <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@mweight@normal
123 }{}
124 \DeclareFontShape{U}{FdSymbolD}{b}{n}{
125
      <-7.1> s * [\fdsy@scale] FdSymbolD-\fdsy@bweight@small
      <7.1-> s * [\fdsy@scale] FdSymbolD-\fdsy@bweight@normal
126
127 }{}
128 \DeclareFontShape{U}{FdSymbolE}{m}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@mweight@small
      <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@mweight@normal
130
131 }{}
132 \DeclareFontShape{U}{FdSymbolE}{b}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolE-\fdsy@bweight@small
133
      <7.1-> s * [\fdsy@scale] FdSymbolE-\fdsy@bweight@normal
134
135 }{}
136 \DeclareFontShape{U}{FdSymbolF}{m}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@mweight@small
      <7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@mweight@normal
138
139 }{}
140 \DeclareFontShape{U}{FdSymbolF}{b}{n}{
      <-7.1> s * [\fdsy@scale] FdSymbolF-\fdsy@bweight@small
```

```
<7.1-> s * [\fdsy@scale] FdSymbolF-\fdsy@bweight@normal
142
143 }{}
144
145 \DeclareSymbolFont{symbols}{U}{FdSymbolA}{m}{n}
146 \DeclareSymbolFont{relations}{U}{FdSymbolB}{m}{n}
147 \DeclareSymbolFont{arrows}{U}{FdSymbolC}{m}{n}
149 \DeclareSymbolFont{largesymbols}{U}{FdSymbolE}{m}{n}
150 \DeclareSymbolFont{delimiters}{U}{FdSymbolF}{m}{n}
151 \SetSymbolFont{symbols}{bold}{U}{FdSymbolA}{b}{n}
152 \SetSymbolFont{relations}{bold}{U}{FdSymbolB}{b}{n}
153 \SetSymbolFont{arrows}{bold}{U}{FdSymbolC}{b}{n}
154 \SetSymbolFont{narrows}{bold}{U}{FdSymbolD}{b}{n}
155 \SetSymbolFont{largesymbols}{bold}{U}{FdSymbolE}{b}{n}
156 \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.
157 \DeclareMathAlphabet{\mathcal}{OMS}{cmsy}{m}{n}
158 \SetMathAlphabet{\mathcal}{bold}{OMS}{cmsy}{b}{n}
159 \DeclareMathAlphabet{\mathbb}{U}{msb}{m}{n}
160 \DeclareMathAlphabet{\mathfrak}{U}{euf}{m}{n}
161 \SetMathAlphabet{\mathfrak}{bold}{U}{euf}{b}{n}
162 \let\Bbbk\undefined
163 \newcommand{\Bbbk}{\mathbb{\mathchar"717C}}
A command for taking math symbols from the text font.
164 \def\fdsy@bold{bold}
165 \newcommand*\fdsy@text[1]{%
     \ifx\fdsy@bold\math@version
       \text{\normalfont\bfseries#1}%
167
     \else
168
       \text{\normalfont\mdseries#1}%
169
170
    \fi
171 }
FdSymbolA: binary operators and ordinary symbols
172 \fdsy@setslot{0}
173 \fdsy@DeclareSymbol{\cdot}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\cdotp}{symbols}{\mathpunct}
175 \fdsy@DeclareSymbol{\hdotdot}{symbols}{\mathbin}
176 \fdsy@DeclareSymbol{\vdotdot}{symbols}{\mathbin}
     \fdsy@DeclareAlias{\colon}{symbols}{\mathpunct}
177
     \fdsy@DeclareAlias{\mathcolon}{symbols}{\mathpunct}
     \fdsy@DeclareAlias{\mathratio}{symbols}{\mathrel}
180 \fdsy@DeclareSymbol{\udotdot}{symbols}{\mathbin}
181 \fdsy@DeclareSymbol{\ddotdot}{symbols}{\mathbin}
```

```
182 \fdsy@DeclareSymbol{\hdots}{symbols}{\mathord}
    \fdsy@DeclareAlias{\@cdots}{symbols}{\mathinner}
    \let\cdots\@cdots
185 \fdsy@DeclareSymbol{\@vdots}{symbols}{\mathord}
187 \fdsy@DeclareSymbol{\udots}{symbols}{\mathord}
    \fdsy@DeclareAlias{\adots}{symbols}{\mathord}
189 \fdsy@DeclareSymbol{\ddots}{symbols}{\mathord}
190 \fdsy@DeclareSymbol{\righttherefore}{symbols}{\mathord}
191 \fdsy@DeclareSymbol{\uptherefore}{symbols}{\mathord}
    \fdsy@DeclareAlias{\therefore}{symbols}{\mathord}
193 \fdsy@DeclareSymbol{\lefttherefore}{symbols}{\mathord}
194 \fdsy@DeclareSymbol{\downtherefore}{symbols}{\mathord}
    \fdsy@DeclareAlias{\because}{symbols}{\mathord}
196 \fdsy@DeclareSymbol{\squaredots}{symbols}{\mathord}
    \fdsy@DeclareAlias{\Colon}{symbols}{\mathrel}
198 \fdsy@DeclareSymbol{\minus}{symbols}{\mathbin}
199 \fdsy@DeclareSymbol{\medslash}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\smalldivslash}{symbols}{\mathbin}
201 \fdsy@DeclareSymbol{\medbackslash}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\smallsetminus}{symbols}{\mathbin}
203 \fdsy@DeclareSymbol{\plus}{symbols}{\mathbin}
204 \fdsy@DeclareSymbol{\times}{symbols}{\mathbin}
205 \fdsy@DeclareSymbol{\dotminus}{symbols}{\mathbin}
206 \fdsy@DeclareSymbol{\minusdot}{symbols}{\mathbin}
207 \fdsy@DeclareSymbol{\div}{symbols}{\mathbin}
208 \fdsy@DeclareSymbol{\minusfdots}{symbols}{\mathbin}
209 \fdsy@DeclareSymbol{\minusrdots}{symbols}{\mathbin}
210 \fdsy@DeclareSymbol{\dotsminusdots}{symbols}{\mathrel}
211 \fdsy@DeclareSymbol{\pm}{symbols}{\mathbin}
212 \fdsy@DeclareSymbol{\mp}{symbols}{\mathbin}
213 \fdsy@DeclareSymbol{\dotplus}{symbols}{\mathbin}
214 \fdsy@DeclareSymbol{\plusdot}{symbols}{\mathbin}
215 \fdsy@DeclareSymbol{\dottimes}{symbols}{\mathbin}
216 \fdsy@DeclareSymbol{\timesbar}{symbols}{\mathbin}
217 \fdsy@DeclareSymbol{\divideontimes}{symbols}{\mathbin}
218 \fdsy@DeclareSymbol{\neg}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lnot}{symbols}{\mathord}
    \fdsy@DeclareAlias{\minushookdown}{symbols}{\mathbin}
221 \fdsy@DeclareSymbol{\backneg}{symbols}{\mathord}
    \fdsy@DeclareAlias{\hookdownminus}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\invneg}{symbols}{\mathord}
223
    \fdsy@DeclareAlias{\invnot}{symbols}{\mathord}
225 \fdsy@DeclareSymbol{\intprod}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\minushookup}{symbols}{\mathbin}
```

```
\fdsy@DeclareAlias{\turnedneg}{symbols}{\mathord}
    \fdsy@DeclareAlias{\turnednot}{symbols}{\mathord}
229 \fdsy@DeclareSymbol{\intprodr}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\hookupminus}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\turnedbackneg}{symbols}{\mathord}
232 \fdsy@DeclareSymbol{\leftthreetimes}{symbols}{\mathbin}
233 \fdsy@DeclareSymbol{\rightthreetimes}{symbols}{\mathbin}
234 \fdsy@DeclareSymbol{\dtimes}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\btimes}{symbols}{\mathbin}
236 \fdsy@DeclareSymbol{\rtimes}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\rJoin}{symbols}{\mathrel}
238 \fdsy@DeclareSymbol{\utimes}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\ttimes}{symbols}{\mathbin}
240 \fdsy@DeclareSymbol{\ltimes}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\lJoin}{symbols}{\mathrel}
242 \fdsy@DeclareSymbol{\bowtie}{symbols}{\mathrel}
243
    \fdsy@DeclareAlias{\Join}{symbols}{\mathrel}
    \fdsy@DeclareAlias{\lrtimes}{symbols}{\mathbin}
245 \fdsy@DeclareSymbol{\upbowtie}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\hourglass}{symbols}{\mathbin}
247 \fdsy@DeclareSymbol{\rightY}{symbols}{\mathbin}
248 \fdsy@DeclareSymbol{\upY}{symbols}{\mathbin}
249 \fdsy@DeclareSymbol{\leftY}{symbols}{\mathbin}
250 \fdsy@DeclareSymbol{\downY}{symbols}{\mathbin}
251 \fdsy@DeclareSymbol{\wedge}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\land}{symbols}{\mathbin}
253 \fdsy@DeclareSymbol{\vee}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\lor}{symbols}{\mathbin}
255 \fdsy@DeclareSymbol{\wedgedot}{symbols}{\mathbin}
256 \fdsy@DeclareSymbol{\veedot}{symbols}{\mathbin}
257 \fdsy@DeclareSymbol{\doublewedge}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\wedgeonwedge}{symbols}{\mathbin}
259 \fdsy@DeclareSymbol{\doublevee}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\veeonvee}{symbols}{\mathbin}
261 \fdsy@DeclareSymbol{\curlywedge}{symbols}{\mathbin}
262 \fdsy@DeclareSymbol{\curlyvee}{symbols}{\mathbin}
263 \fdsy@DeclareSymbol{\barwedge}{symbols}{\mathbin}
264 \fdsy@DeclareSymbol{\veebar}{symbols}{\mathbin}
265 \fdsy@DeclareSymbol{\doublebarwedge}{symbols}{\mathbin}
266 \fdsy@DeclareSymbol{\veedoublebar}{symbols}{\mathbin}
267 \fdsy@DeclareSymbol{\cup}{symbols}{\mathbin}
268 \fdsy@DeclareSymbol{\cap}{symbols}{\mathbin}
269 \fdsy@DeclareSymbol{\doublecup}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\Cup}{symbols}{\mathbin}
271 \fdsy@DeclareSymbol{\doublecap}{symbols}{\mathbin}
```

```
\fdsy@DeclareAlias{\Cap}{symbols}{\mathbin}
273 \fdsy@DeclareSymbol{\cupdot}{symbols}{\mathbin}
274 \fdsy@DeclareSymbol{\capdot}{symbols}{\mathbin}
275 \fdsy@DeclareSymbol{\cupplus}{symbols}{\mathbin}
   \fdsy@DeclareAlias{\uplus}{symbols}{\mathbin}
277 \fdsy@DeclareSymbol{\capplus}{symbols}{\mathbin}
278 \fdsy@DeclareSymbol{\sqcup}{symbols}{\mathbin}
279 \fdsy@DeclareSymbol{\sqcap}{symbols}{\mathbin}
280 \fdsy@DeclareSymbol{\doublesqcup}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\Sqcup}{symbols}{\mathbin}
282 \fdsy@DeclareSymbol{\doublesqcap}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\Sqcap}{symbols}{\mathbin}
284 \fdsy@DeclareSymbol{\sqcupdot}{symbols}{\mathbin}
285 \fdsy@DeclareSymbol{\sqcapdot}{symbols}{\mathbin}
286 \fdsy@DeclareSymbol{\sqcupplus}{symbols}{\mathbin}
287 \fdsy@DeclareSymbol{\sqcapplus}{symbols}{\mathbin}
288 \fdsy@DeclareSymbol{\pullback}{symbols}{\mathbin}
289 \fdsy@DeclareSymbol{\pushout}{symbols}{\mathbin}
290 \fdsy@DeclareSymbol{\smalltriangleright}{symbols}{\mathbin}
291 \fdsy@DeclareSymbol{\smalltriangleup}{symbols}{\mathbin}
292 \fdsy@DeclareSymbol{\smalltriangleleft}{symbols}{\mathbin}
293 \fdsy@DeclareSymbol{\smalltriangledown}{symbols}{\mathbin}
294 \fdsy@DeclareSymbol{\smallblacktriangleright}{symbols}{\mathbin}
295 \fdsy@DeclareSymbol{\smallblacktriangleup}{symbols}{\mathbin}
296 \fdsy@DeclareSymbol{\smallblacktriangleleft}{symbols}{\mathbin}
297 \fdsy@DeclareSymbol{\smallblacktriangledown}{symbols}{\mathbin}
298 \fdsy@DeclareSymbol{\medtriangleright}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\triangleright}{symbols}{\mathbin}
300 \fdsy@DeclareSymbol{\medtriangleup}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\triangle}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\vartriangle}{symbols}{\mathbin}
302
303 \fdsy@DeclareSymbol{\medtriangleleft}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\triangleleft}{symbols}{\mathbin}
305\fdsy@DeclareSymbol{\medtriangledown}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\triangledown}{symbols}{\mathbin}
307 \fdsy@DeclareSymbol{\medblacktriangleright}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\blacktriangleright}{symbols}{\mathbin}
309 \fdsy@DeclareSymbol{\medblacktriangleup}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\blacktriangle}{symbols}{\mathbin}
311 \fdsy@DeclareSymbol{\medblacktriangleleft}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\blacktriangleleft}{symbols}{\mathbin}
{\tt 313 \fdsy@DeclareSymbol{\medblacktriangledown}\{symbols\}\{\mathbin\}}
    \fdsy@DeclareAlias{\blacktriangledown}{symbols}{\mathbin}
315 \fdsy@DeclareSymbol{\largetriangleup}{symbols}{\mathord}
    \fdsy@DeclareAlias{\bigtriangleup}{symbols}{\mathbin}
```

```
317 \fdsy@DeclareSymbol{\largetriangledown}{symbols}{\mathord}
    \fdsy@DeclareAlias{\bigtriangledown}{symbols}{\mathbin}
319 \fdsy@DeclareSymbol{\smallcircle}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circ}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smwhtcircle}{symbols}{\mathbin}
321
322 \fdsy@DeclareSymbol{\smallblackcircle}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\bullet}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smblkcircle}{symbols}{\mathbin}
325 \fdsy@DeclareSymbol{\medcircle}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdlgwhtcircle}{symbols}{\mathbin}
327 \fdsy@DeclareSymbol{\medblackcircle}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdlgblkcircle}{symbols}{\mathbin}
329 \fdsy@DeclareSymbol{\ominus}{symbols}{\mathbin}
330 \fdsy@DeclareSymbol{\overt}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circledvert}{symbols}{\mathbin}
332 \fdsy@DeclareSymbol{\oslash}{symbols}{\mathbin}
333 \fdsy@DeclareSymbol{\obackslash}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\obslash}{symbols}{\mathbin}
335 \fdsy@DeclareSymbol{\oplus}{symbols}{\mathbin}
336 \fdsy@DeclareSymbol{\otimes}{symbols}{\mathbin}
337 \fdsy@DeclareSymbol{\odot}{symbols}{\mathbin}
338 \fdsy@DeclareSymbol{\ocirc}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circledcirc}{symbols}{\mathbin}
340 \fdsy@DeclareSymbol{\oast}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circledast}{symbols}{\mathbin}
342 \fdsy@DeclareSymbol{\odash}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circleddash}{symbols}{\mathbin}
344 \fdsy@DeclareSymbol{\oequal}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\circledequal}{symbols}{\mathbin}
346 \fdsy@DeclareSymbol{\emptyset}{symbols}{\mathord}
    \fdsy@DeclareAlias{\diameter}{symbols}{\mathord}
    \fdsy@DeclareAlias{\varnothing}{symbols}{\mathord}
349 \fdsy@DeclareSymbol{\revemptyset}{symbols}{\mathord}
350 \fdsy@DeclareSymbol{\largecircle}{symbols}{\mathord}
    \fdsy@DeclareAlias{\bigcirc}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lgwhtcircle}{symbols}{\mathord}
353 \fdsy@DeclareSymbol{\largeblackcircle}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lgblkcircle}{symbols}{\mathord}
355 \fdsy@DeclareSymbol{\smallsquare}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smwhtsquare}{symbols}{\mathbin}
357 \fdsy@DeclareSymbol{\smallblacksquare}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smblksquare}{symbols}{\mathbin}
359 \fdsy@DeclareSymbol{\medsquare}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\square}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\Box}{symbols}{\mathbin}
```

```
\fdsy@DeclareAlias{\mdlgwhtsquare}{symbols}{\mathbin}
362
    \fdsy@DeclareAlias{\mdwhtsquare}{symbols}{\mathbin}
364 \fdsy@DeclareSymbol{\medblacksquare}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdlgblksquare}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdblksquare}{symbols}{\mathbin}
367 \fdsy@DeclareSymbol{\boxminus}{symbols}{\mathbin}
368 \fdsy@DeclareSymbol{\boxvert}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\boxbar}{symbols}{\mathbin}
370 \fdsy@DeclareSymbol{\boxslash}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\boxdiag}{symbols}{\mathbin}
372 \fdsy@DeclareSymbol{\boxbackslash}{symbols}{\mathbin}
    374 \fdsy@DeclareSymbol{\boxplus}{symbols}{\mathbin}
375 \fdsy@DeclareSymbol{\boxtimes}{symbols}{\mathbin}
376 \fdsy@DeclareSymbol{\boxdot}{symbols}{\mathbin}
377 \fdsy@DeclareSymbol{\boxbox}{symbols}{\mathbin}
378 \fdsy@DeclareSymbol{\largesquare}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lgwhtsquare}{symbols}{\mathord}
380 \fdsy@DeclareSymbol{\largeblacksquare}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lgblksquare}{symbols}{\mathord}
382 \fdsy@DeclareSymbol{\smalldiamond}{symbols}{\mathbin}
383
    \fdsy@DeclareAlias{\diamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smwhtdiamond}{symbols}{\mathbin}
384
385 \fdsy@DeclareSymbol{\smallblackdiamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\blackdiamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smblkdiamond}{symbols}{\mathbin}
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388 \fdsy@DeclareSymbol{\meddiamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\Diamond}{symbols}{\mathbin}
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    \fdsy@DeclareAlias{\mdlgwhtdiamond}{symbols}{\mathbin}
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    \fdsy@DeclareAlias{\mdwhtdiamond}{symbols}{\mathbin}
392 \fdsy@DeclareSymbol{\medblackdiamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdlgblkdiamond}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\mdblkdiamond}{symbols}{\mathbin}
395 \fdsy@DeclareSymbol{\diamondminus}{symbols}{\mathbin}
396 \fdsy@DeclareSymbol{\diamondvert}{symbols}{\mathbin}
397 \fdsy@DeclareSymbol{\diamondslash}{symbols}{\mathbin}
398 \fdsy@DeclareSymbol{\diamondbackslash}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\diamondbslash}{symbols}{\mathbin}
400 \fdsy@DeclareSymbol{\diamondplus}{symbols}{\mathbin}
401 \fdsy@DeclareSymbol{\diamondtimes}{symbols}{\mathbin}
402 \fdsy@DeclareSymbol{\diamonddot}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\diamondcdot}{symbols}{\mathbin}
404 \fdsy@DeclareSymbol{\diamonddiamond}{symbols}{\mathbin}
405 \fdsy@DeclareSymbol{\smalllozenge}{symbols}{\mathord}
    \fdsy@DeclareAlias{\smwhtlozenge}{symbols}{\mathord}
```

```
407 \fdsy@DeclareSymbol{\smallblacklozenge}{symbols}{\mathord}
    \fdsy@DeclareAlias{\smblklozenge}{symbols}{\mathord}
409 \fdsy@DeclareSymbol{\medlozenge}{symbols}{\mathord}
    \fdsy@DeclareAlias{\lozenge}{symbols}{\mathord}
    \fdsy@DeclareAlias{\mdlgwhtlozenge}{symbols}{\mathord}
411
    \fdsy@DeclareAlias{\mdwhtlozenge}{symbols}{\mathord}
413 \fdsy@DeclareSymbol{\medblacklozenge}{symbols}{\mathord}
414
    \fdsy@DeclareAlias{\blacklozenge}{symbols}{\mathord}
415
    \fdsy@DeclareAlias{\mdlgblklozenge}{symbols}{\mathord}
    \fdsy@DeclareAlias{\mdblklozenge}{symbols}{\mathord}
416
417 \fdsy@DeclareSymbol{\lozengeminus}{symbols}{\mathord}
418 \fdsy@DeclareSymbol{\smallwhitestar}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\smwhitestar}{symbols}{\mathbin}
420 \fdsy@DeclareSymbol{\smallblackstar}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\star}{symbols}{\mathbin}
422 \fdsy@DeclareSymbol{\medwhitestar}{symbols}{\mathbin}
423 \fdsy@DeclareSymbol{\medblackstar}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\medstar}{symbols}{\mathbin}
425 \fdsy@DeclareSymbol{\largewhitestar}{symbols}{\mathord}
426 \fdsy@DeclareSymbol{\largeblackstar}{symbols}{\mathord}
    \fdsy@DeclareAlias{\bigstar}{symbols}{\mathord}
428 \fdsy@DeclareSymbol{\ast}{symbols}{\mathbin}
429 \fdsy@DeclareSymbol{\infty}{symbols}{\mathord}
430 \fdsy@DeclareSymbol{\propto}{symbols}{\mathrel}
    \fdsy@DeclareAlias{\varpropto}{symbols}{\mathrel}
432 \fdsy@DeclareSymbol{\backpropto}{symbols}{\mathrel}
    \fdsy@DeclareAlias{\propfrom}{symbols}{\mathrel}
434 \fdsy@DeclareSymbol{\crossing}{symbols}{\mathrel}
435 \fdsy@DeclareSymbol{\between}{symbols}{\mathrel}
436 \fdsy@DeclareSymbol{\intercal}{symbols}{\mathbin}
437 \fdsy@DeclareSymbol{\wreath}{symbols}{\mathbin}
    \fdsy@DeclareAlias{\wr}{symbols}{\mathbin}
439 \fdsy@DeclareSymbol{\angle}{symbols}{\mathord}
440 \fdsy@DeclareSymbol{\revangle}{symbols}{\mathord}
441 \fdsy@DeclareSymbol{\measuredangle}{symbols}{\mathord}
442 \fdsy@DeclareSymbol{\revmeasuredangle}{symbols}{\mathord}
    \fdsy@DeclareAlias{\measuredangleleft}{symbols}{\mathord}
444 \fdsy@DeclareSymbol{\sphericalangle}{symbols}{\mathord}
445 \fdsy@DeclareSymbol{\sphericalangleup}{symbols}{\mathord}
446 \fdsy@DeclareSymbol{\sphericalangleleft}{symbols}{\mathord}
    \fdsy@DeclareAlias{\revsphericalangle}{symbols}{\mathord}
    \fdsy@DeclareAlias{\gtlpar}{symbols}{\mathord}
449 \fdsy@DeclareSymbol{\sphericalangledown}{symbols}{\mathord}
450 \fdsy@DeclareSymbol{\rightangle}{symbols}{\mathord}
451 \fdsy@DeclareSymbol{\measuredrightangle}{symbols}{\mathord}
```

```
452 \fdsy@DeclareSymbol{\rightanglesquare}{symbols}{\mathord}
    \fdsy@DeclareAlias{\rightanglesqr}{symbols}{\mathord}
454 \fdsy@DeclareSymbol{\measuredrightangledot}{symbols}{\mathord}
    \fdsy@DeclareAlias{\rightanglemdot}{symbols}{\mathord}
456 \fdsy@DeclareSymbol{\prime}{symbols}{\mathord}
457 \fdsy@DeclareSymbol{\backprime}{symbols}{\mathord}
458 \fdsy@DeclareSymbol{\smallprod}{symbols}{\mathop}
459 \fdsy@DeclareSymbol{\varsmallprod}{symbols}{\mathop}
460 \fdsy@DeclareSymbol{\smallcoprod}{symbols}{\mathop}
    \fdsy@DeclareAlias{\amalg}{symbols}{\mathbin}
462 \fdsy@DeclareSymbol{\varsmallcoprod}{symbols}{\mathop}
    \fdsy@DeclareAlias{\varamalg}{symbols}{\mathbin}
464 \fdsy@DeclareSymbol{\smallint}{symbols}{\mathop}
465 \fdsy@DeclareSymbol{\checkmark}{symbols}{\mathord}
466 \fdsy@DeclareSymbol{\lightning}{symbols}{\mathord}
    \fdsy@DeclareAlias{\downzigzagarrow}{symbols}{\mathord}
468 \fdsy@DeclareSymbol{\diamondsuit}{symbols}{\mathord}
469 \fdsy@DeclareSymbol{\vardiamondsuit}{symbols}{\mathord}
470 \fdsy@DeclareSymbol{\heartsuit}{symbols}{\mathord}
471 \fdsy@DeclareSymbol{\varheartsuit}{symbols}{\mathord}
472 \fdsy@DeclareSymbol{\spadesuit}{symbols}{\mathord}
473 \fdsy@DeclareSymbol{\clubsuit}{symbols}{\mathord}
474 \fdsy@DeclareSymbol{\maltese}{symbols}{\mathord}
475 \fdsy@DeclareSymbol{\starofdavid}{symbols}{\mathord}
476 \fdsy@DeclareSymbol{\sector}{symbols}{\mathord}
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478 \fdsy@DeclareSymbol{\exists}{symbols}{\mathord}
479 \fdsy@DeclareSymbol{\nexists}{symbols}{\mathord}
480 \fdsy@DeclareSymbol{\Finv}{symbols}{\mathord}
481 \fdsy@DeclareSymbol{\Game}{symbols}{\mathord}
482 \fdsy@DeclareSymbol{\complement}{symbols}{\mathord}
483 \fdsy@DeclareSymbol{\flat}{symbols}{\mathord}
484 \fdsy@DeclareSymbol{\natural}{symbols}{\mathord}
485 \fdsy@DeclareSymbol{\sharp}{symbols}{\mathord}
486 \fdsy@DeclareSymbol{\aleph}{symbols}{\mathord}
487 \fdsy@DeclareSymbol{\beth}{symbols}{\mathord}
488 \fdsy@DeclareSymbol{\gimel}{symbols}{\mathord}
489 \fdsy@DeclareSymbol{\daleth}{symbols}{\mathord}
490 \fdsy@DeclareSymbol{\wp}{symbols}{\mathord}
FdSymbolB: relations
491 \fdsy@setslot{0}
492 \fdsy@DeclareSymbol{\equal}{relations}{\mathrel}
493 \fdsy@DeclareSymbol{\equiv}{relations}{\mathrel}
494 \fdsy@DeclareSymbol{\sim}{relations}{\mathrel}
495 \fdsy@DeclareSymbol{\backsim}{relations}{\mathrel}
```

```
496 \fdsy@DeclareSymbol{\approx}{relations}{\mathrel}
497 \fdsy@DeclareSymbol{\triplesim}{relations}{\mathrel}
    \fdsy@DeclareAlias{\approxident}{relations}{\mathrel}
499 \fdsy@DeclareSymbol{\simeq}{relations}{\mathrel}
500 \fdsy@DeclareSymbol{\backsimeq}{relations}{\mathrel}
501 \fdsy@DeclareSymbol{\eqsim}{relations}{\mathrel}
502 \fdsy@DeclareSymbol{\cong}{relations}{\mathrel}
503 \fdsy@DeclareSymbol{\backcong}{relations}{\mathrel}
504 \fdsy@DeclareSymbol{\approxeq}{relations}{\mathrel}
505 \fdsy@DeclareSymbol{\bumpeq}{relations}{\mathrel}
506 \fdsy@DeclareSymbol{\bumpeqq}{relations}{\mathrel}
507 \fdsy@DeclareSymbol{\Bumpeq}{relations}{\mathrel}
508 \fdsy@DeclareSymbol{\doteq}{relations}{\mathrel}
509 \fdsy@DeclareSymbol{\eqdot}{relations}{\mathrel}
510 \fdsy@DeclareSymbol{\Doteq}{relations}{\mathrel}
   \fdsy@DeclareAlias{\doteqdot}{relations}{\mathrel}
512 \fdsy@DeclareSymbol{\fallingdotseq}{relations}{\mathrel}
513 \fdsy@DeclareSymbol{\risingdotseq}{relations}{\mathrel}
514 \fdsy@DeclareSymbol{\coloneq}{relations}{\mathrel}
   \fdsy@DeclareAlias{\coloneqq}{relations}{\mathrel}
516 \fdsy@DeclareSymbol{\eqcolon}{relations}{\mathrel}
    \fdsy@DeclareAlias{\eqqcolon}{relations}{\mathrel}
518 \fdsy@DeclareSymbol{\smile}{relations}{\mathrel}
    \fdsy@DeclareAlias{\smallsmile}{relations}{\mathrel}
520 \fdsy@DeclareSymbol{\frown}{relations}{\mathrel}
   \fdsy@DeclareAlias{\smallfrown}{relations}{\mathrel}
522 \fdsy@DeclareSymbol{\smilefrown}{relations}{\mathrel}
    \fdsy@DeclareAlias{\asymp}{relations}{\mathrel}
524 \fdsy@DeclareSymbol{\frownsmile}{relations}{\mathrel}
   \fdsy@DeclareAlias{\closure}{relations}{\mathrel}
526 \fdsy@DeclareSymbol{\smileeq}{relations}{\mathrel}
527 \fdsy@DeclareSymbol{\frowneq}{relations}{\mathrel}
528 \fdsy@DeclareAlias{\arceq}{relations}{\mathrel}
529 \fdsy@DeclareSymbol{\eqcirc}{relations}{\mathrel}
530 \fdsy@DeclareSymbol{\circeq}{relations}{\mathrel}
531 \fdsy@DeclareSymbol{\wedgeq}{relations}{\mathrel}
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534 \fdsy@DeclareSymbol{\stareq}{relations}{\mathrel}
535 \fdsy@DeclareSymbol{\triangleeq}{relations}{\mathrel}
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537 \fdsy@DeclareSymbol{\in}{relations}{\mathrel}
538 \fdsy@DeclareSymbol{\owns}{relations}{\mathrel}
   \fdsy@DeclareAlias{\ni}{relations}{\mathrel}
540 \fdsy@DeclareSymbol{\less}{relations}{\mathrel}
```

```
541 \fdsy@DeclareSymbol{\gtr}{relations}{\mathrel}
542 \fdsy@DeclareSymbol{\leq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\le}{relations}{\mathrel}
544 \fdsy@DeclareSymbol{\geq}{relations}{\mathrel}
  \fdsy@DeclareAlias{\ge}{relations}{\mathrel}
546 \fdsy@DeclareSymbol{\leqslant}{relations}{\mathrel}
547 \fdsy@DeclareSymbol{\geqslant}{relations}{\mathrel}
548 \fdsy@DeclareSymbol{\leqq}{relations}{\mathrel}
549 \fdsy@DeclareSymbol{\geqq}{relations}{\mathrel}
550 \fdsy@DeclareSymbol{\lesssim}{relations}{\mathrel}
551 \fdsy@DeclareSymbol{\gtrsim}{relations}{\mathrel}
552 \fdsy@DeclareSymbol{\lessapprox}{relations}{\mathrel}
553 \fdsy@DeclareSymbol{\gtrapprox}{relations}{\mathrel}
554\fdsy@DeclareSymbol{\lessgtr}{relations}{\mathrel}
555 \fdsy@DeclareSymbol{\gtrless}{relations}{\mathrel}
556 \fdsy@DeclareSymbol{\lesseqgtr}{relations}{\mathrel}
557 \fdsy@DeclareSymbol{\gtreqless}{relations}{\mathrel}
558 \fdsy@DeclareSymbol{\lesseqqgtr}{relations}{\mathrel}
559 \fdsy@DeclareSymbol{\gtreqqless}{relations}{\mathrel}
560 \fdsy@DeclareSymbol{\lesseqslantgtr}{relations}{\mathrel}
    \fdsy@DeclareAlias{\lesg}{relations}{\mathrel}
    \fdsy@DeclareAlias{\lesseqgtrslant}{relations}{\mathrel}
563 \fdsy@DeclareSymbol{\gtreqslantless}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gesl}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gtreqlessslant}{relations}{\mathrel}
566 \fdsy@DeclareSymbol{\ll}{relations}{\mathrel}
567 \fdsy@DeclareSymbol{\gg}{relations}{\mathrel}
568 \fdsy@DeclareSymbol{\lll}{relations}{\mathrel}
    \fdsy@DeclareAlias{\llless}{relations}{\mathrel}
570 \fdsy@DeclareSymbol{\ggg}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gggtr}{relations}{\mathrel}
572 \fdsy@DeclareSymbol{\lessclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\lhd}{relations}{\mathbin}
573
   \fdsy@DeclareAlias{\vartriangleleft}{relations}{\mathrel}
575 \fdsy@DeclareSymbol{\gtrclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\rhd}{relations}{\mathbin}
    \fdsy@DeclareAlias{\vartriangleright}{relations}{\mathrel}
577
578 \fdsy@DeclareSymbol{\leqclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\unlhd}{relations}{\mathbin}
579
580
    \fdsy@DeclareAlias{\trianglelefteq}{relations}{\mathrel}
581 \fdsy@DeclareSymbol{\geqclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\unrhd}{relations}{\mathbin}
582
    \fdsy@DeclareAlias{\trianglerighteq}{relations}{\mathrel}
584 \fdsy@DeclareSymbol{\lesscc}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ltcc}{relations}{\mathrel}
```

```
586 \fdsy@DeclareSymbol{\gtrcc}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gtcc}{relations}{\mathrel}
588 \fdsy@DeclareSymbol{\leqslcc}{relations}{\mathrel}
    \fdsy@DeclareAlias{\lescc}{relations}{\mathrel}
590 \fdsy@DeclareSymbol{\geqslcc}{relations}{\mathrel}
   \fdsy@DeclareAlias{\gescc}{relations}{\mathrel}
592 \fdsy@DeclareSymbol{\sqsubset}{relations}{\mathrel}
593 \fdsy@DeclareSymbol{\sqsupset}{relations}{\mathrel}
594 \fdsy@DeclareSymbol{\sqsubseteq}{relations}{\mathrel}
595 \fdsy@DeclareSymbol{\sqsupseteq}{relations}{\mathrel}
596 \fdsy@DeclareSymbol{\sqsubseteqq}{relations}{\mathrel}
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598 \fdsy@DeclareSymbol{\Sqsubset}{relations}{\mathrel}
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601 \fdsy@DeclareSymbol{\supset}{relations}{\mathrel}
602 \fdsy@DeclareSymbol{\subseteq}{relations}{\mathrel}
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607 \fdsy@DeclareSymbol{\Supset}{relations}{\mathrel}
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613 \fdsy@DeclareSymbol{\succcurlyeq}{relations}{\mathrel}
614 \fdsy@DeclareSymbol{\preceqq}{relations}{\mathrel}
615 \fdsy@DeclareSymbol{\succeqq}{relations}{\mathrel}
616 \fdsy@DeclareSymbol{\precsim}{relations}{\mathrel}
617 \fdsy@DeclareSymbol{\succsim}{relations}{\mathrel}
618 \fdsy@DeclareSymbol{\precapprox}{relations}{\mathrel}
619 \fdsy@DeclareSymbol{\succapprox}{relations}{\mathrel}
620 \fdsy@DeclareSymbol{\lessdot}{relations}{\mathrel}
621 \fdsy@DeclareSymbol{\gtrdot}{relations}{\mathrel}
622 \fdsy@DeclareSymbol{\leqdot}{relations}{\mathrel}
623 \fdsy@DeclareSymbol{\geqdot}{relations}{\mathrel}
624 \fdsy@DeclareSymbol{\leqslantdot}{relations}{\mathrel}
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626 \fdsy@DeclareSymbol{\geqslantdot}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gesdot}{relations}{\mathrel}
628 \fdsy@DeclareSymbol{\eqslantless}{relations}{\mathrel}
629 \fdsy@DeclareSymbol{\eqslantgtr}{relations}{\mathrel}
630 \fdsy@DeclareSymbol{\curlyeqprec}{relations}{\mathrel}
```

```
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632 \fdsy@DeclareSymbol{\nequal}{relations}{\mathrel}
    \fdsy@DeclareAlias{\neq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ne}{relations}{\mathrel}
635 \fdsy@DeclareSymbol{\nequiv}{relations}{\mathrel}
636 \fdsy@DeclareSymbol{\nsim}{relations}{\mathrel}
637 \fdsy@DeclareSymbol{\nbacksim}{relations}{\mathrel}
638 \fdsy@DeclareSymbol{\napprox}{relations}{\mathrel}
639 \fdsy@DeclareSymbol{\ntriplesim}{relations}{\mathrel}
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641 \fdsy@DeclareSymbol{\nsimeq}{relations}{\mathrel}
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645 \fdsy@DeclareSymbol{\ncong}{relations}{\mathrel}
646 \fdsy@DeclareSymbol{\nbackcong}{relations}{\mathrel}
647 \fdsy@DeclareSymbol{\napproxeq}{relations}{\mathrel}
648 \fdsy@DeclareSymbol{\nbumpeq}{relations}{\mathrel}
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651 \fdsy@DeclareSymbol{\ndoteq}{relations}{\mathrel}
652 \fdsy@DeclareSymbol{\neqdot}{relations}{\mathrel}
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656 \fdsy@DeclareSymbol{\nsmile}{relations}{\mathrel}
657 \fdsy@DeclareSymbol{\nfrown}{relations}{\mathrel}
658 \fdsy@DeclareSymbol{\nsmilefrown}{relations}{\mathrel}
    \fdsy@DeclareAlias{\nasymp}{relations}{\mathrel}
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    \fdsy@DeclareAlias{\nclosure}{relations}{\mathrel}
662 \fdsy@DeclareSymbol{\nsmileeq}{relations}{\mathrel}
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665 \fdsy@DeclareSymbol{\neqcirc}{relations}{\mathrel}
666 \fdsy@DeclareSymbol{\ncirceq}{relations}{\mathrel}
667 \fdsy@DeclareSymbol{\nwedgeq}{relations}{\mathrel}
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669 \fdsy@DeclareSymbol{\nveeeq}{relations}{\mathrel}
670 \fdsy@DeclareSymbol{\nstareq}{relations}{\mathrel}
671 \fdsy@DeclareSymbol{\ntriangleeq}{relations}{\mathrel}
672 \fdsy@DeclareSymbol{\nin}{relations}{\mathrel}
   \fdsy@DeclareAlias{\notin}{relations}{\mathrel}
674 \fdsy@DeclareSymbol{\nowns}{relations}{\mathrel}
   \fdsy@DeclareAlias{\nni}{relations}{\mathrel}
```

```
676 \fdsy@DeclareSymbol{\nless}{relations}{\mathrel}
677 \fdsy@DeclareSymbol{\ngtr}{relations}{\mathrel}
678 \fdsy@DeclareSymbol{\nleq}{relations}{\mathrel}
679 \fdsy@DeclareSymbol{\ngeq}{relations}{\mathrel}
680 \fdsy@DeclareSymbol{\nleqslant}{relations}{\mathrel}
681 \fdsy@DeclareSymbol{\ngeqslant}{relations}{\mathrel}
682 \fdsy@DeclareSymbol{\nleqq}{relations}{\mathrel}
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684 \fdsy@DeclareSymbol{\nlesssim}{relations}{\mathrel}
685 \fdsy@DeclareSymbol{\ngtrsim}{relations}{\mathrel}
686 \fdsy@DeclareSymbol{\nlessapprox}{relations}{\mathrel}
687 \fdsy@DeclareSymbol{\ngtrapprox}{relations}{\mathrel}
688 \fdsy@DeclareSymbol{\nlessgtr}{relations}{\mathrel}
689 \fdsy@DeclareSymbol{\ngtrless}{relations}{\mathrel}
690 \fdsy@DeclareSymbol{\nlesseqgtr}{relations}{\mathrel}
691 \fdsy@DeclareSymbol{\ngtreqless}{relations}{\mathrel}
692 \fdsy@DeclareSymbol{\nlesseqqgtr}{relations}{\mathrel}
693 \fdsy@DeclareSymbol{\ngtreqqless}{relations}{\mathrel}
694 \fdsy@DeclareSymbol{\nlesseqslantgtr}{relations}{\mathrel}
    \fdsy@DeclareAlias{\nlesg}{relations}{\mathrel}
    \fdsy@DeclareAlias{\nlesseqgtrslant}{relations}{\mathrel}
697 \fdsy@DeclareSymbol{\ngtreqslantless}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ngesl}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ngtreqlessslant}{relations}{\mathrel}
700 \fdsy@DeclareSymbol{\nll}{relations}{\mathrel}
701 \fdsy@DeclareSymbol{\ngg}{relations}{\mathrel}
702 \fdsy@DeclareSymbol{\nlll}{relations}{\mathrel}
703 \fdsy@DeclareSymbol{\nggg}{relations}{\mathrel}
704 \fdsy@DeclareSymbol{\nlessclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ntriangleleft}{relations}{\mathrel}
706 \fdsy@DeclareSymbol{\ngtrclosed}{relations}{\mathrel}
    \fdsy@DeclareAlias{\ntriangleright}{relations}{\mathrel}
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   \fdsy@DeclareAlias{\ntrianglelefteq}{relations}{\mathrel}
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    \fdsy@DeclareAlias{\ntrianglerighteq}{relations}{\mathrel}
712 \fdsy@DeclareSymbol{\nlesscc}{relations}{\mathrel}
    \fdsy@DeclareAlias{\nltcc}{relations}{\mathrel}
714 \fdsy@DeclareSymbol{\ngtrcc}{relations}{\mathrel}
   \fdsy@DeclareAlias{\ngtcc}{relations}{\mathrel}
716 \fdsy@DeclareSymbol{\nleqslcc}{relations}{\mathrel}
    \fdsy@DeclareAlias{\nlescc}{relations}{\mathrel}
718 \fdsy@DeclareSymbol{\ngeqslcc}{relations}{\mathrel}
   \fdsy@DeclareAlias{\ngescc}{relations}{\mathrel}
720 \fdsy@DeclareSymbol{\nsqsubset}{relations}{\mathrel}
```

```
721 \fdsy@DeclareSymbol{\nsqsupset}{relations}{\mathrel}
722 \fdsy@DeclareSymbol{\nsqsubseteq}{relations}{\mathrel}
723 \fdsy@DeclareSymbol{\nsqsupseteq}{relations}{\mathrel}
724 \fdsy@DeclareSymbol{\nsqsubseteqq}{relations}{\mathrel}
725 \fdsy@DeclareSymbol{\nsqsupseteqq}{relations}{\mathrel}
726 \fdsy@DeclareSymbol{\nSqsubset}{relations}{\mathrel}
727 \fdsy@DeclareSymbol{\nSqsupset}{relations}{\mathrel}
728 \fdsy@DeclareSymbol{\nsubset}{relations}{\mathrel}
729 \fdsy@DeclareSymbol{\nsupset}{relations}{\mathrel}
730 \fdsy@DeclareSymbol{\nsubseteq}{relations}{\mathrel}
731 \fdsy@DeclareSymbol{\nsupseteq}{relations}{\mathrel}
732 \fdsy@DeclareSymbol{\nsubseteqq}{relations}{\mathrel}
733 \fdsy@DeclareSymbol{\nsupseteqq}{relations}{\mathrel}
734 \fdsy@DeclareSymbol{\nSubset}{relations}{\mathrel}
735 \fdsy@DeclareSymbol{\nSupset}{relations}{\mathrel}
736 \fdsy@DeclareSymbol{\nprec}{relations}{\mathrel}
737 \fdsy@DeclareSymbol{\nsucc}{relations}{\mathrel}
738 \fdsy@DeclareSymbol{\npreceq}{relations}{\mathrel}
739 \fdsy@DeclareSymbol{\nsucceq}{relations}{\mathrel}
740 \fdsy@DeclareSymbol{\npreccurlyeq}{relations}{\mathrel}
741 \fdsy@DeclareSymbol{\nsucccurlyeq}{relations}{\mathrel}
742 \fdsy@DeclareSymbol{\npreceqq}{relations}{\mathrel}
743 \fdsy@DeclareSymbol{\nsucceqq}{relations}{\mathrel}
744 \fdsy@DeclareSymbol{\nprecsim}{relations}{\mathrel}
745 \fdsy@DeclareSymbol{\nsuccsim}{relations}{\mathrel}
746 \fdsy@DeclareSymbol{\nprecapprox}{relations}{\mathrel}
747 \fdsy@DeclareSymbol{\nsuccapprox}{relations}{\mathrel}
748 \fdsy@DeclareSymbol{\nlessdot}{relations}{\mathrel}
749 \fdsy@DeclareSymbol{\ngtrdot}{relations}{\mathrel}
750 \fdsy@DeclareSymbol{\nleqdot}{relations}{\mathrel}
751 \fdsy@DeclareSymbol{\ngeqdot}{relations}{\mathrel}
752 \fdsy@DeclareSymbol{\nleqslantdot}{relations}{\mathrel}
       \fdsy@DeclareAlias{\nlesdot}{relations}{\mathrel}
754 \fdsy@DeclareSymbol{\ngeqslantdot}{relations}{\mathrel}
      \fdsy@DeclareAlias{\ngesdot}{relations}{\mathrel}
756 \fdsy@DeclareSymbol{\neqslantless}{relations}{\mathrel}
757 \fdsy@DeclareSymbol{\neqslantgtr}{relations}{\mathrel}
758 \fdsy@DeclareSymbol{\ncurlyeqprec}{relations}{\mathrel}
759 \fdsy@DeclareSymbol{\ncurlyeqsucc}{relations}{\mathrel}
760 \fdsy@DeclareSymbol{\simneqq}{relations}{\mathrel}
761 \fdsy@DeclareSymbol{\backsimneqq}{relations}{\mathrel}
\label{lem:condition} \end{\colored} $$ end{\colored} $$\end{
763 \fdsy@DeclareSymbol{\gneq}{relations}{\mathrel}
764 \fdsy@DeclareSymbol{\lneqq}{relations}{\mathrel}
      \fdsy@DeclareAlias{\lvertneqq}{relations}{\mathrel}
```

```
766 \fdsy@DeclareSymbol{\gneqq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\gvertneqq}{relations}{\mathrel}
768 \fdsy@DeclareSymbol{\lnsim}{relations}{\mathrel}
769 \fdsy@DeclareSymbol{\gnsim}{relations}{\mathrel}
770 \fdsy@DeclareSymbol{\lnapprox}{relations}{\mathrel}
771 \fdsy@DeclareSymbol{\gnapprox}{relations}{\mathrel}
772 \fdsy@DeclareSymbol{\sqsubsetneq}{relations}{\mathrel}
773 \fdsy@DeclareSymbol{\sqsupsetneq}{relations}{\mathrel}
774 \fdsy@DeclareSymbol{\sqsubsetneqq}{relations}{\mathrel}
775 \fdsy@DeclareSymbol{\sqsupsetneqq}{relations}{\mathrel}
776 \fdsy@DeclareSymbol{\subsetneq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\varsubsetneq}{relations}{\mathrel}
778 \fdsy@DeclareSymbol{\supsetneq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\varsupsetneq}{relations}{\mathrel}
780 \fdsy@DeclareSymbol{\subsetneqq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\varsubsetneqq}{relations}{\mathrel}
782 \fdsy@DeclareSymbol{\supsetneqq}{relations}{\mathrel}
    \fdsy@DeclareAlias{\varsupsetneqq}{relations}{\mathrel}
784 \fdsy@DeclareSymbol{\precneq}{relations}{\mathrel}
785 \fdsy@DeclareSymbol{\succneq}{relations}{\mathrel}
786 \fdsy@DeclareSymbol{\precneqq}{relations}{\mathrel}
787 \fdsy@DeclareSymbol{\succneqq}{relations}{\mathrel}
788 \fdsy@DeclareSymbol{\precnsim}{relations}{\mathrel}
789 \fdsy@DeclareSymbol{\succnsim}{relations}{\mathrel}
790 \fdsy@DeclareSymbol{\precnapprox}{relations}{\mathrel}
791 \fdsy@DeclareSymbol{\succnapprox}{relations}{\mathrel}
FdSymbolC: arrows and turnstile symbols
792 \fdsy@setslot{0}
793 \fdsy@DeclareSymbol{\rightarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\to}{arrows}{\mathrel}
795 \fdsy@DeclareSymbol{\uparrow}{arrows}{\mathrel}
796 \fdsy@DeclareSymbol{\leftarrow}{arrows}{\mathrel}
797 \fdsy@DeclareAlias{\gets}{arrows}{\mathrel}
798 \fdsy@DeclareSymbol{\downarrow}{arrows}{\mathrel}
799 \fdsy@DeclareSymbol{\nearrow}{arrows}{\mathrel}
800 \fdsy@DeclareSymbol{\nwarrow}{arrows}{\mathrel}
801 \fdsy@DeclareSymbol{\swarrow}{arrows}{\mathrel}
802 \fdsy@DeclareSymbol{\searrow}{arrows}{\mathrel}
803 \fdsy@DeclareSymbol{\Rightarrow}{arrows}{\mathrel}
804 \fdsy@DeclareSymbol{\Uparrow}{arrows}{\mathrel}
805 \fdsy@DeclareSymbol{\Leftarrow}{arrows}{\mathrel}
806 \fdsy@DeclareSymbol{\Downarrow}{arrows}{\mathrel}
807 \fdsy@DeclareSymbol{\Nearrow}{arrows}{\mathrel}
808 \fdsy@DeclareSymbol{\Nwarrow}{arrows}{\mathrel}
809 \fdsy@DeclareSymbol{\Swarrow}{arrows}{\mathrel}
```

```
810 \fdsy@DeclareSymbol{\Searrow}{arrows}{\mathrel}
811 \fdsy@DeclareSymbol{\leftrightarrow}{arrows}{\mathrel}
812 \fdsy@DeclareSymbol{\updownarrow}{arrows}{\mathrel}
813 \fdsy@DeclareSymbol{\neswarrow}{arrows}{\mathrel}
814 \fdsy@DeclareSymbol{\nwsearrow}{arrows}{\mathrel}
815 \fdsy@DeclareSymbol{\Leftrightarrow}{arrows}{\mathrel}
816 \fdsy@DeclareSymbol{\Updownarrow}{arrows}{\mathrel}
817 \fdsy@DeclareSymbol{\Neswarrow}{arrows}{\mathrel}
818 \fdsy@DeclareSymbol{\Nwsearrow}{arrows}{\mathrel}
819 \fdsy@DeclareSymbol{\twoheadrightarrow}{arrows}{\mathrel}
820 \fdsy@DeclareSymbol{\twoheaduparrow}{arrows}{\mathrel}
821 \fdsy@DeclareSymbol{\twoheadleftarrow}{arrows}{\mathrel}
822 \fdsy@DeclareSymbol{\twoheaddownarrow}{arrows}{\mathrel}
823 \fdsy@DeclareSymbol{\twoheadnearrow}{arrows}{\mathrel}
824 \fdsy@DeclareSymbol{\twoheadnwarrow}{arrows}{\mathrel}
825 \fdsy@DeclareSymbol{\twoheadswarrow}{arrows}{\mathrel}
826 \fdsy@DeclareSymbol{\twoheadsearrow}{arrows}{\mathrel}
827 \fdsy@DeclareSymbol{\rightarrowtail}{arrows}{\mathrel}
828 \fdsy@DeclareSymbol{\uparrowtail}{arrows}{\mathrel}
829 \fdsy@DeclareSymbol{\leftarrowtail}{arrows}{\mathrel}
830 \fdsy@DeclareSymbol{\downarrowtail}{arrows}{\mathrel}
831 \fdsy@DeclareSymbol{\nearrowtail}{arrows}{\mathrel}
832 \fdsy@DeclareSymbol{\nwarrowtail}{arrows}{\mathrel}
833 \fdsy@DeclareSymbol{\swarrowtail}{arrows}{\mathrel}
834 \fdsy@DeclareSymbol{\searrowtail}{arrows}{\mathrel}
835 \fdsy@DeclareSymbol{\rightmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\mapsto}{arrows}{\mathrel}
837 \fdsy@DeclareSymbol{\upmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\mapsup}{arrows}{\mathrel}
839 \fdsy@DeclareSymbol{\leftmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\mapsfrom}{arrows}{\mathrel}
841 \fdsy@DeclareSymbol{\downmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\mapsdown}{arrows}{\mathrel}
843 \fdsy@DeclareSymbol{\Rightmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\Mapsto}{arrows}{\mathrel}
845 \fdsy@DeclareSymbol{\Upmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\Mapsup}{arrows}{\mathrel}
847 \fdsy@DeclareSymbol{\Leftmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\Mapsfrom}{arrows}{\mathrel}
849 \fdsy@DeclareSymbol{\Downmapsto}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\Mapsdown}{arrows}{\mathrel}
851 \fdsy@DeclareSymbol{\hookrightarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhookrightarrow}{arrows}{\mathrel}
853 \fdsy@DeclareSymbol{\hookuparrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhookuparrow}{arrows}{\mathrel}
```

```
855 \fdsy@DeclareSymbol{\varhookleftarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhookleftarrow}{arrows}{\mathrel}
857 \fdsy@DeclareSymbol{\varhookdownarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhookdownarrow}{arrows}{\mathrel}
859 \fdsy@DeclareSymbol{\varhooknearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhooknearrow}{arrows}{\mathrel}
861 \fdsy@DeclareSymbol{\hooknwarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\hknwarrow}{arrows}{\mathrel}
862
    \fdsy@DeclareAlias{\lhooknwarrow}{arrows}{\mathrel}
864 \fdsy@DeclareSymbol{\varhookswarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhookswarrow}{arrows}{\mathrel}
866 \fdsy@DeclareSymbol{\hooksearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\hksearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\lhooksearrow}{arrows}{\mathrel}
869 \fdsy@DeclareSymbol{\varhookrightarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhookrightarrow}{arrows}{\mathrel}
871 \fdsy@DeclareSymbol{\varhookuparrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhookuparrow}{arrows}{\mathrel}
873 \fdsy@DeclareSymbol{\hookleftarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhookleftarrow}{arrows}{\mathrel}
875 \fdsy@DeclareSymbol{\hookdownarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhookdownarrow}{arrows}{\mathrel}
877 \fdsy@DeclareSymbol{\hooknearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\hknearrow}{arrows}{\mathrel}
878
    \fdsy@DeclareAlias{\rhooknearrow}{arrows}{\mathrel}
880 \fdsy@DeclareSymbol{\varhooknwarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhooknwarrow}{arrows}{\mathrel}
882 \fdsy@DeclareSymbol{\hookswarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\hkswarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhookswarrow}{arrows}{\mathrel}
885 \fdsy@DeclareSymbol{\varhooksearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rhooksearrow}{arrows}{\mathrel}
887 \fdsy@DeclareSymbol{\rightharpoonup}{arrows}{\mathrel}
888 \fdsy@DeclareSymbol{\upharpoonleft}{arrows}{\mathrel}
889 \fdsy@DeclareSymbol{\leftharpoondown}{arrows}{\mathrel}
890 \fdsy@DeclareSymbol{\downharpoonright}{arrows}{\mathrel}
891 \fdsy@DeclareSymbol{\neharpoonnw}{arrows}{\mathrel}
892 \fdsy@DeclareSymbol{\nwharpoonsw}{arrows}{\mathrel}
893 \fdsy@DeclareSymbol{\swharpoonse}{arrows}{\mathrel}
894 \fdsy@DeclareSymbol{\seharpoonne}{arrows}{\mathrel}
895 \fdsy@DeclareSymbol{\rightharpoondown}{arrows}{\mathrel}
896 \fdsy@DeclareSymbol{\upharpoonright} {arrows} {\mbox{$mathrel}$} \\
    \fdsy@DeclareAlias{\restriction}{arrows}{\mathrel}
898 \fdsy@DeclareSymbol{\leftharpoonup}{arrows}{\mathrel}
899 \fdsy@DeclareSymbol{\downharpoonleft}{arrows}{\mathrel}
```

```
900 \fdsy@DeclareSymbol{\neharpoonse}{arrows}{\mathrel}
901 \fdsy@DeclareSymbol{\nwharpoonne}{arrows}{\mathrel}
902 \fdsy@DeclareSymbol{\swharpoonnw}{arrows}{\mathrel}
903 \fdsy@DeclareSymbol{\seharpoonsw}{arrows}{\mathrel}
904 \fdsy@DeclareSymbol{\leftrightharpoonupdown}{arrows}{\mathrel}
905 \fdsy@DeclareSymbol{\updownharpoonleftright}{arrows}{\mathrel}
906 \fdsy@DeclareSymbol{\neswharpoonnwse}{arrows}{\mathrel}
907 \fdsy@DeclareSymbol{\nwseharpoonnesw}{arrows}{\mathrel}
908 \fdsy@DeclareSymbol{\leftrightharpoondownup}{arrows}{\mathrel}
909 \fdsy@DeclareSymbol{\updownharpoonrightleft}{arrows}{\mathrel}
910 \fdsy@DeclareSymbol{\neswharpoonsenw}{arrows}{\mathrel}
911 \fdsy@DeclareSymbol{\nwseharpoonswne}{arrows}{\mathrel}
912 \fdsy@DeclareSymbol{\rightleftharpoons}{arrows}{\mathrel}
913 \fdsy@DeclareSymbol{\updownharpoons}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\updownharpoonsleftright}{arrows}{\mathrel}
915 \fdsy@DeclareSymbol{\neswharpoons}{arrows}{\mathrel}
916 \fdsy@DeclareSymbol{\senwharpoons}{arrows}{\mathrel}
917 \fdsy@DeclareSymbol{\leftrightharpoons}{arrows}{\mathrel}
918 \fdsy@DeclareSymbol{\downupharpoons}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\downupharpoonsleftright}{arrows}{\mathrel}
920 \fdsy@DeclareSymbol{\swneharpoons}{arrows}{\mathrel}
921 \fdsy@DeclareSymbol{\nwseharpoons}{arrows}{\mathrel}
922 \fdsy@DeclareSymbol{\rightbkarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\dasharrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\dashrightarrow}{arrows}{\mathrel}
925 \fdsy@DeclareSymbol{\upbkarrow}{arrows}{\mathrel}
926\fdsy@DeclareSymbol{\leftbkarrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\dashleftarrow}{arrows}{\mathrel}
928 \fdsy@DeclareSymbol{\downbkarrow}{arrows}{\mathrel}
929 \fdsy@DeclareSymbol{\nebkarrow}{arrows}{\mathrel}
930 \fdsy@DeclareSymbol{\nwbkarrow}{arrows}{\mathrel}
931 \fdsy@DeclareSymbol{\swbkarrow}{arrows}{\mathrel}
932 \fdsy@DeclareSymbol{\sebkarrow}{arrows}{\mathrel}
933 \fdsy@DeclareSymbol{\rightspoon}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\multimap}{arrows}{\mathrel}
935 \fdsy@DeclareSymbol{\upspoon}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\cirmid}{arrows}{\mathrel}
937 \fdsy@DeclareSymbol{\leftspoon}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\multimapinv}{arrows}{\mathrel}
939 \fdsy@DeclareSymbol{\downspoon}{arrows}{\mathrel}
940 \fdsy@DeclareAlias{\midcir}{arrows}{\mathrel}
941 \fdsy@DeclareSymbol{\rightblackspoon}{arrows}{\mathrel}
942 \fdsy@DeclareSymbol{\upblackspoon}{arrows}{\mathrel}
943 \fdsy@DeclareSymbol{\leftblackspoon}{arrows}{\mathrel}
944 \fdsy@DeclareSymbol{\downblackspoon}{arrows}{\mathrel}
```

```
945 \fdsy@DeclareSymbol{\leftrightspoon}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\dualmap}{arrows}{\mathrel}
947 \fdsy@DeclareSymbol{\leftrightblackspoon}{arrows}{\mathrel}
948 \fdsy@DeclareSymbol{\blackwhitespoon}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\imageof}{arrows}{\mathrel}
950 \fdsy@DeclareSymbol{\whiteblackspoon}{arrows}{\mathrel}
   \fdsy@DeclareAlias{\origof}{arrows}{\mathrel}
952 \fdsy@DeclareSymbol{\rightpitchfork}{arrows}{\mathrel}
953 \fdsy@DeclareSymbol{\uppitchfork}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\pitchfork}{arrows}{\mathrel}
955 \fdsy@DeclareSymbol{\leftpitchfork}{arrows}{\mathrel}
956\fdsy@DeclareSymbol{\downpitchfork}{arrows}{\mathrel}
957 \fdsy@DeclareSymbol{\rightrightarrows}{arrows}{\mathrel}
958 \fdsy@DeclareSymbol{\upuparrows}{arrows}{\mathrel}
959 \fdsy@DeclareSymbol{\leftleftarrows}{arrows}{\mathrel}
960 \fdsy@DeclareSymbol{\downdownarrows}{arrows}{\mathrel}
961 \fdsy@DeclareSymbol{\nenearrows}{arrows}{\mathrel}
962 \fdsy@DeclareSymbol{\nwnwarrows}{arrows}{\mathrel}
963 \fdsy@DeclareSymbol{\swswarrows}{arrows}{\mathrel}
964 \fdsy@DeclareSymbol{\sesearrows}{arrows}{\mathrel}
965 \fdsy@DeclareSymbol{\rightleftarrows}{arrows}{\mathrel}
966 \fdsy@DeclareSymbol{\updownarrows}{arrows}{\mathrel}
967 \fdsy@DeclareSymbol{\neswarrows}{arrows}{\mathrel}
968 \fdsy@DeclareSymbol{\nwsearrows}{arrows}{\mathrel}
969 \fdsy@DeclareSymbol{\leftrightarrows}{arrows}{\mathrel}
970 \fdsy@DeclareSymbol{\downuparrows}{arrows}{\mathrel}
971 \fdsy@DeclareSymbol{\swnearrows}{arrows}{\mathrel}
972 \fdsy@DeclareSymbol{\senwarrows}{arrows}{\mathrel}
973 \fdsy@DeclareSymbol{\rightwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\leadsto}{arrows}{\mathrel}
974
    \fdsy@DeclareAlias{\rightsquigarrow}{arrows}{\mathrel}
975
    \fdsy@DeclareAlias{\rightcurvedarrow}{arrows}{\mathrel}
976
    \fdsy@DeclareAlias{\rightlsquigarrow}{arrows}{\mathrel}
977
978 \fdsy@DeclareSymbol{\varupwavearrow}{arrows}{\mathrel}
979
    \fdsy@DeclareAlias{\uplsquigarrow}{arrows}{\mathrel}
980 \fdsy@DeclareSymbol{\varleftwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\leftlsquigarrow}{arrows}{\mathrel}
981
982 \fdsy@DeclareSymbol{\downwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\downlsquigarrow}{arrows}{\mathrel}
984 \fdsy@DeclareSymbol{\varrightwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\rightrsquigarrow}{arrows}{\mathrel}
986 \fdsy@DeclareSymbol{\upwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\uprsquigarrow}{arrows}{\mathrel}
988 \fdsy@DeclareSymbol{\leftwavearrow}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\leftsquigarrow}{arrows}{\mathrel}
```

```
\fdsy@DeclareAlias{\leftcurvedarrow}{arrows}{\mathrel}
990
     \fdsy@DeclareAlias{\leftrsquigarrow}{arrows}{\mathrel}
992 \fdsy@DeclareSymbol{\vardownwavearrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downrsquigarrow}{arrows}{\mathrel}
994\fdsy@DeclareSymbol{\leftrightwavearrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\leftrightsquigarrow}{arrows}{\mathrel}
996 \fdsy@DeclareSymbol{\updownwavearrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\updownsquigarrow}{arrows}{\mathrel}
998 \fdsy@DeclareSymbol{\varleftrightwavearrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\rightleftsquigarrow}{arrows}{\mathrel}
1000 \fdsy@DeclareSymbol{\varupdownwavearrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downupsquigarrow}{arrows}{\mathrel}
1002 \fdsy@DeclareSymbol{\cwoverarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\curvearrowright}{arrows}{\mathrel}
1003
1004
     \fdsy@DeclareAlias{\rightlcurvearrow}{arrows}{\mathrel}
1005 \fdsy@DeclareSymbol{\cwleftarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\uplcurvearrow}{arrows}{\mathrel}
\label{loss} $$1007 \fdsy@DeclareSymbol{\cwunderarcarrow}{arrows}{\mathrel}$
     \fdsy@DeclareAlias{\leftlcurvearrow}{arrows}{\mathrel}
1009 \fdsy@DeclareSymbol{\cwrightarcarrow}{arrows}{\mathrel}
     1011 \fdsy@DeclareSymbol{\cwnwarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\rightupcurvedarrow}{arrows}{\mathrel}
1012
1013
     \fdsy@DeclareAlias{\nelcurvearrow}{arrows}{\mathrel}
{\tt 1014 \fdsy@DeclareSymbol{\cwswarcarrow}{arrows}{\mbox{\cwswarcarrow}}} \\
     \fdsy@DeclareAlias{\upleftcurvedarrow}{arrows}{\mathrel}
1015
     \fdsy@DeclareAlias{\nwlcurvearrow}{arrows}{\mathrel}
{\tt 1017 \fdsy@DeclareSymbol{\cwsearcarrow}{arrows}{\mbox{\cwsearcarrow}}} \\
     \fdsy@DeclareAlias{\leftdowncurvedarrow}{arrows}{\mathrel}
1018
     \fdsy@DeclareAlias{\swlcurvearrow}{arrows}{\mathrel}
1019
1020 \fdsy@DeclareSymbol{\cwnearcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downrightcurvedarrow}{arrows}{\mathrel}
1021
     \fdsy@DeclareAlias{\selcurvearrow}{arrows}{\mathrel}
1022
1023 \fdsy@DeclareSymbol{\acwunderarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\rightrcurvearrow}{arrows}{\mathrel}
1025 \fdsy@DeclareSymbol{\acwrightarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\uprcurvearrow}{arrows}{\mathrel}
1027 \fdsy@DeclareSymbol{\acwoverarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\curvearrowleft}{arrows}{\mathrel}
1028
1029
     \fdsy@DeclareAlias{\leftrcurvearrow}{arrows}{\mathrel}
1030 \fdsy@DeclareSymbol{\acwleftarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downrcurvearrow}{arrows}{\mathrel}
1032 \fdsy@DeclareSymbol{\acwsearcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\uprightcurvearrow}{arrows}{\mathrel}
1033
     \fdsy@DeclareAlias{\nercurvearrow}{arrows}{\mathrel}
```

```
1035 \fdsy@DeclareSymbol{\acwnearcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\leftupcurvedarrow}{arrows}{\mathrel}
1037
     \fdsy@DeclareAlias{\nwrcurvearrow}{arrows}{\mathrel}
1038 \fdsy@DeclareSymbol{\acwnwarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downleftcurvedarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\swrcurvearrow}{arrows}{\mathrel}
1041 \fdsy@DeclareSymbol{\acwswarcarrow}{arrows}{\mathrel}
1042
     \fdsy@DeclareAlias{\rightdowncurvedarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\sercurvearrow}{arrows}{\mathrel}
1044 \fdsy@DeclareSymbol{\bdoverarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\leftrightcurvearrow}{arrows}{\mathrel}
{\tt 1046 \fdsy@DeclareSymbol{\bdleftarcarrow}\{arrows}\{{\tt mathrel}\}
     \fdsy@DeclareAlias{\updowncurvearrow}{arrows}{\mathrel}
1048 \fdsy@DeclareSymbol{\bdunderarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\rightleftcurvearrow}{arrows}{\mathrel}
1050 \fdsy@DeclareSymbol{\bdrightarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\downupcurvearrow}{arrows}{\mathrel}
1052 \fdsy@DeclareSymbol{\bdnwarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\neswcurvearrow}{arrows}{\mathrel}
1054 \fdsy@DeclareSymbol{\bdswarcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\nwsecurvearrow}{arrows}{\mathrel}
1056 \fdsy@DeclareSymbol{\bdsearcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\swnecurvearrow}{arrows}{\mathrel}
1058 \fdsy@DeclareSymbol{\bdnearcarrow}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\senwcurvearrow}{arrows}{\mathrel}
1060 \fdsy@DeclareSymbol{\leftfootline}{arrows}{\mathrel}
1061 \fdsy@DeclareSymbol{\rightfootline}{arrows}{\mathrel}
1062 \fdsy@DeclareSymbol{\acwcirclearrowup}{arrows}{\mathrel}
1063 \fdsy@DeclareSymbol{\acwcirclearrowleft}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\circlearrowleft}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\acwopencirclearrow}{arrows}{\mathrel}
1065
1066 \fdsy@DeclareSymbol{\acwcirclearrowdown}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\acwgapcirclearrow}{arrows}{\mathrel}
1068 \fdsy@DeclareSymbol{\acwcirclearrowright}{arrows}{\mathrel}
1069 \fdsy@DeclareSymbol{\cwcirclearrowdown}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\cwgapcirclearrow}{arrows}{\mathrel}
1071 \fdsy@DeclareSymbol{\cwcirclearrowright}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\circlearrowright}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\cwopencirclearrow}{arrows}{\mathrel}
1074 \fdsy@DeclareSymbol{\cwcirclearrowup}{arrows}{\mathrel}
1075 \fdsy@DeclareSymbol{\cwcirclearrowleft}{arrows}{\mathrel}
1076 \fdsy@DeclareSymbol{\Rrightarrow}{arrows}{\mathrel}
1077 \fdsy@DeclareSymbol{\Uuparrow}{arrows}{\mathrel}
1078 \fdsy@DeclareSymbol{\Lleftarrow}{arrows}{\mathrel}
1079 \fdsy@DeclareSymbol{\Ddownarrow}{arrows}{\mathrel}
```

```
1080 \fdsy@DeclareSymbol{\longrightarrow}{arrows}{\mathrel}
1081 \fdsy@DeclareSymbol{\longleftarrow}{arrows}{\mathrel}
1082 \fdsy@DeclareSymbol{\Longrightarrow}{arrows}{\mathrel}
1083 \fdsy@DeclareSymbol{\Longleftarrow}{arrows}{\mathrel}
\label{longleftrightarrow} $$1084 \footnote{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\colored{\c
1085 \fdsy@DeclareSymbol{\Longleftrightarrow}{arrows}{\mathrel}
1086 \fdsy@DeclareSymbol{\longmapsto}{arrows}{\mathrel}
1087 \fdsy@DeclareSymbol{\longmapsfrom}{arrows}{\mathrel}
1088 \fdsy@DeclareSymbol{\Longmapsto}{arrows}{\mathrel}
1089 \fdsy@DeclareSymbol{\Longmapsfrom}{arrows}{\mathrel}
1090 \fdsy@DeclareSymbol{\longrightwavearrow}{arrows}{\mathrel}
         \fdsy@DeclareAlias{\longleadsto}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\longrightsquigarrow}{arrows}{\mathrel}
1093 \fdsy@DeclareSymbol{\longleftwavearrow}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\longleftsquigarrow}{arrows}{\mathrel}
1095 \fdsy@DeclareSymbol{\longleftfootline}{arrows}{\mathrel}
         \fdsy@DeclareAlias{\vlongdash}{arrows}{\mathrel}
1097 \fdsy@DeclareSymbol{\longrightfootline}{arrows}{\mathrel}
1098 \fdsy@DeclareAlias{\longdashv}{arrows}{\mathrel}
1099 \fdsy@DeclareSymbol{\Lsh}{arrows}{\mathrel}
{\tt 1100 \fdsy@DeclareSymbol{\Rsh}{arrows}{\tt \mathrel}}
1101 \fdsy@DeclareSymbol{\Ldsh}{arrows}{\mathrel}
1102 \fdsy@DeclareSymbol{\Rdsh}{arrows}{\mathrel}
1103 \fdsy@DeclareSymbol{\looparrowright}{arrows}{\mathrel}
1104\fdsy@DeclareSymbol{\looparrowleft}{arrows}{\mathrel}
1105 \fdsy@setslot{224}
1106\fdsy@DeclareSymbol{\rightvdash}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\vdash}{arrows}{\mathrel}
1108 \fdsy@DeclareSymbol{\upvdash}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\perp}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\bot}{arrows}{\mathord}
1111 \fdsy@DeclareSymbol{\leftvdash}{arrows}{\mathrel}
         \fdsy@DeclareAlias{\dashv}{arrows}{\mathrel}
1113 \fdsy@DeclareSymbol{\downvdash}{arrows}{\mathrel}
        \fdsy@DeclareAlias{\top}{arrows}{\mathord}
1115 \fdsy@DeclareSymbol{\rightassert}{arrows}{\mathrel}
          \fdsy@DeclareAlias{\assert}{arrows}{\mathrel}
1116
          \fdsy@DeclareAlias{\shortrighttack}{arrows}{\mathrel}
1118 \fdsy@DeclareSymbol{\upassert}{arrows}{\mathrel}
         \fdsy@DeclareAlias{\shortuptack}{arrows}{\mathrel}
1120 \fdsy@DeclareSymbol{\leftassert}{arrows}{\mathrel}
        \fdsy@DeclareAlias{\shortlefttack}{arrows}{\mathrel}
1122 \fdsy@DeclareSymbol{\downassert}{arrows}{\mathrel}
         \fdsy@DeclareAlias{\shortdowntack}{arrows}{\mathrel}
1124 \fdsy@DeclareSymbol{\rightvDash}{arrows}{\mathrel}
```

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\fdsy@DeclareAlias{\vDash}{arrows}{\mathrel}
1126 \fdsy@DeclareSymbol{\upvDash}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\Vbar}{arrows}{\mathrel}
1128 \fdsy@DeclareSymbol{\leftvDash}{arrows}{\mathrel}
1129 \fdsy@DeclareAlias{\Dashv}{arrows}{\mathrel}
1130 \fdsy@DeclareSymbol{\downvDash}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\barV}{arrows}{\mathrel}
1132 \fdsy@DeclareSymbol{\rightmodels}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\models}{arrows}{\mathrel}
1134 \fdsy@DeclareSymbol{\upmodels}{arrows}{\mathrel}
1135 \fdsy@DeclareSymbol{\leftmodels}{arrows}{\mathrel}
1136\fdsy@DeclareSymbol{\downmodels}{arrows}{\mathrel}
1137 \fdsy@DeclareSymbol{\rightVdash}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\Vdash}{arrows}{\mathrel}
1139 \fdsy@DeclareSymbol{\upVdash}{arrows}{\mathrel}
1140 \fdsy@DeclareSymbol{\leftVdash}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\dashV}{arrows}{\mathrel}
1142 \fdsy@DeclareSymbol{\downVdash}{arrows}{\mathrel}
1143 \fdsy@DeclareSymbol{\rightAssert}{arrows}{\mathrel}
1144 \fdsy@DeclareAlias{\Assert}{arrows}{\mathrel}
1145 \fdsy@DeclareSymbol{\upAssert}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\vBar}{arrows}{\mathrel}
1147 \fdsy@DeclareSymbol{\leftAssert}{arrows}{\mathrel}
1148 \fdsy@DeclareSymbol{\downAssert}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\Barv}{arrows}{\mathrel}
1150 \fdsy@DeclareSymbol{\rightVDash}{arrows}{\mathrel}
     \fdsy@DeclareAlias{\VDash}{arrows}{\mathrel}
1152 \fdsy@DeclareSymbol{\upVDash}{arrows}{\mathrel}
1153 \fdsy@DeclareSymbol{\leftVDash}{arrows}{\mathrel}
    \fdsy@DeclareAlias{\DashV}{arrows}{\mathrel}
1155 \fdsy@DeclareSymbol{\downVDash}{arrows}{\mathrel}
1156 \fdsy@DeclareSymbol{\Vvdash}{arrows}{\mathrel}
1157 \fdsy@DeclareSymbol{\dashVv}{arrows}{\mathrel}
1158 \fdsy@DeclareSymbol{\vDdash}{arrows}{\mathrel}
1159 \fdsy@DeclareSymbol{\Ddashv}{arrows}{\mathrel}
1160
1161 \DeclareRobustCommand{\relbar}{\mathrel{\smash-}}
1162 \DeclareRobustCommand{\Relbar}{\mathrel=}
1163 \let\joinrel\undefined
1164 \DeclareRobustCommand\joinrel{\mathrel{\mkern-4mu}}
FdSymbolD: stroked arrows
1165 \fdsy@setslot{0}
1166 \fdsy@DeclareSymbol{\nrightarrow}{\narrows}{\mathrel}
    \fdsy@DeclareAlias{\nto}{narrows}{\mathrel}
1168 \fdsy@DeclareSymbol{\nuparrow}{\narrows}{\mathrel}
```

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1169 \fdsy@DeclareSymbol{\nleftarrow}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\ngets}{narrows}{\mathrel}
1171 \fdsy@DeclareSymbol{\ndownarrow}{\narrows}{\mathrel}
1172 \fdsy@DeclareSymbol{\nnearrow}{narrows}{\mathrel}
1173 \fdsy@DeclareSymbol{\nnwarrow}{\narrows}{\mathrel}
1174 \fdsy@DeclareSymbol{\nswarrow}{\narrows}{\mathrel}
1175 \fdsy@DeclareSymbol{\nsearrow}{\narrows}{\mathrel}
1176 \fdsy@DeclareSymbol{\nRightarrow}{narrows}{\mathrel}
1177 \fdsy@DeclareSymbol{\nUparrow}{\narrows}{\mathrel}
1178 \fdsy@DeclareSymbol{\nLeftarrow}{narrows}{\mathrel}
1179 \fdsy@DeclareSymbol{\nDownarrow}{\narrows}{\mathrel}
{\tt 1180 \ fdsy@DeclareSymbol{\nNearrow}\{narrows}\{{\tt mathrel}\}
1181 \fdsy@DeclareSymbol{\nNwarrow}{narrows}{\mathrel}
1182 \fdsy@DeclareSymbol{\nSwarrow}{\narrows}{\mathrel}
1183 \fdsy@DeclareSymbol{\nSearrow}{narrows}{\mathrel}
1184 \fdsy@DeclareSymbol{\nleftrightarrow}{narrows}{\mathrel}
1185 \fdsy@DeclareSymbol{\nupdownarrow}{narrows}{\mathrel}
1186 \fdsy@DeclareSymbol{\nneswarrow}{narrows}{\mathrel}
1187 \fdsy@DeclareSymbol{\nnwsearrow}{narrows}{\mathrel}
1188 \fdsy@DeclareSymbol{\nLeftrightarrow}{narrows}{\mathrel}
{\tt 1189 \fdsy@DeclareSymbol{\nUpdownarrow}\{narrows\}\{\narrows\}\{\narrows\}\}} \\
1190 \fdsy@DeclareSymbol{\nNeswarrow}{narrows}{\mathrel}
1191 \fdsy@DeclareSymbol{\nNwsearrow}{narrows}{\mathrel}
1192 \fdsy@DeclareSymbol{\ntwoheadrightarrow}{narrows}{\mathrel}
1193 \fdsy@DeclareSymbol{\ntwoheaduparrow}{narrows}{\mathrel}
1194 \fdsy@DeclareSymbol{\ntwoheadleftarrow}{narrows}{\mathrel}
1195 \fdsy@DeclareSymbol{\ntwoheaddownarrow}{narrows}{\mathrel}
1196 \fdsy@DeclareSymbol{\ntwoheadnearrow}{narrows}{\mathrel}
1197 \fdsy@DeclareSymbol{\ntwoheadnwarrow}{narrows}{\mathrel}
1198 \fdsy@DeclareSymbol{\ntwoheadswarrow}{narrows}{\mathrel}
1199 \fdsy@DeclareSymbol{\ntwoheadsearrow}{narrows}{\mathrel}
1200 \fdsy@DeclareSymbol{\nrightarrowtail}{narrows}{\mathrel}
1201 \fdsy@DeclareSymbol{\nuparrowtail}{narrows}{\mathrel}
1202 \fdsy@DeclareSymbol{\nleftarrowtail}{narrows}{\mathrel}
1203 \fdsy@DeclareSymbol{\ndownarrowtail}{narrows}{\mathrel}
1204 \fdsy@DeclareSymbol{\nnearrowtail}{narrows}{\mathrel}
1205 \fdsy@DeclareSymbol{\nnwarrowtail}{narrows}{\mathrel}
1206 \fdsy@DeclareSymbol{\nswarrowtail}{narrows}{\mathrel}
1207 \fdsy@DeclareSymbol{\nsearrowtail}{narrows}{\mathrel}
1208 \fdsy@DeclareSymbol{\nrightmapsto}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\nmapsto}{narrows}{\mathrel}
\fdsy@DeclareAlias{\nmapsup}{narrows}{\mathrel}
1212 \fdsy@DeclareSymbol{\nleftmapsto}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nmapsfrom}{narrows}{\mathrel}
```

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1214 \fdsy@DeclareSymbol{\ndownmapsto}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nmapsdown}{narrows}{\mathrel}
1216 \fdsy@DeclareSymbol{\nRightmapsto}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nMapsto}{narrows}{\mathrel}
{\tt 1218 \fdsy@DeclareSymbol{\nUpmapsto}\{narrows\}\{\mathrel\}}
     \fdsy@DeclareAlias{\nMapsup}{narrows}{\mathrel}
1220 \fdsy@DeclareSymbol{\nLeftmapsto}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nMapsfrom}{narrows}{\mathrel}
1222 \fdsy@DeclareSymbol{\nDownmapsto}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nMapsdown}{narrows}{\mathrel}
1224 \fdsy@DeclareSymbol{\nhookrightarrow}{narrows}{\mathrel}
{\tt 1225 \fdsy@DeclareSymbol\{\nhookuparrow\}\{narrows\}\{\mathrel\}}
1226 \fdsy@DeclareSymbol{\nvarhookleftarrow}{narrows}{\mathrel}
1227 \fdsy@DeclareSymbol{\nvarhookdownarrow}{narrows}{\mathrel}
1228 \fdsy@DeclareSymbol{\nvarhooknearrow}{narrows}{\mathrel}
1229 \fdsy@DeclareSymbol{\nhooknwarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nhknwarrow}{narrows}{\mathrel}
1231 \fdsy@DeclareSymbol{\nvarhookswarrow}{narrows}{\mathrel}
1232 \fdsy@DeclareSymbol{\nhooksearrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nhksearrow}{narrows}{\mathrel}
1235 \fdsy@DeclareSymbol{\nvarhookuparrow}{narrows}{\mathrel}
1236 \fdsy@DeclareSymbol{\nhookleftarrow}{narrows}{\mathrel}
1237 \fdsy@DeclareSymbol{\nhookdownarrow}{narrows}{\mathrel}
1238 \fdsy@DeclareSymbol{\nhooknearrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nhknearrow}{narrows}{\mathrel}
1240 \fdsy@DeclareSymbol{\nvarhooknwarrow}{narrows}{\mathrel}
1241 \fdsy@DeclareSymbol{\nhookswarrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nhkswarrow}{narrows}{\mathrel}
1243 \fdsy@DeclareSymbol{\nvarhooksearrow}{narrows}{\mathrel}
1244 \fdsy@DeclareSymbol{\nrightharpoonup}{narrows}{\mathrel}
1245 \fdsy@DeclareSymbol{\nupharpoonleft}{narrows}{\mathrel}
1246 \fdsy@DeclareSymbol{\nleftharpoondown}{narrows}{\mathrel}
1247 \fdsy@DeclareSymbol{\ndownharpoonright}{narrows}{\mathrel}
1248 \fdsy@DeclareSymbol{\nneharpoonnw}{narrows}{\mathrel}
1249 \fdsy@DeclareSymbol{\nnwharpoonsw}{narrows}{\mathrel}
1250 \fdsy@DeclareSymbol{\nswharpoonse}{narrows}{\mathrel}
1251 \fdsy@DeclareSymbol{\nseharpoonne}{narrows}{\mathrel}
1252 \fdsy@DeclareSymbol{\nrightharpoondown}{narrows}{\mathrel}
1253 \fdsy@DeclareSymbol{\nupharpoonright}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\nrestriction}{narrows}{\mathrel}
1255 \fdsy@DeclareSymbol{\nleftharpoonup}{narrows}{\mathrel}
1256 \fdsy@DeclareSymbol{\ndownharpoonleft}{narrows}{\mathrel}
1257 \fdsy@DeclareSymbol{\nneharpoonse}{narrows}{\mathrel}
1258 \fdsy@DeclareSymbol{\nnwharpoonne}{narrows}{\mathrel}
```

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1259 \fdsy@DeclareSymbol{\nswharpoonnw}{narrows}{\mathrel}
1260 \fdsy@DeclareSymbol{\nseharpoonsw}{narrows}{\mathrel}
1261 \fdsy@DeclareSymbol{\nleftrightharpoonupdown}{narrows}{\mathrel}
1262 \fdsy@DeclareSymbol{\nupdownharpoonleftright}{\narrows}{\mathrel}
1263 \fdsy@DeclareSymbol{\nneswharpoonnwse}{narrows}{\mathrel}
1264 \fdsy@DeclareSymbol{\nnwseharpoonnesw}{narrows}{\mathrel}
1265 \fdsy@DeclareSymbol{\nleftrightharpoondownup}{narrows}{\mathrel}
1266 \fdsy@DeclareSymbol{\nupdownharpoonrightleft}{narrows}{\mathrel}
1267 \fdsy@DeclareSymbol{\nneswharpoonsenw}{narrows}{\mathrel}
1268 \fdsy@DeclareSymbol{\nnwseharpoonswne}{narrows}{\mathrel}
1269 \fdsy@DeclareSymbol{\nrightleftharpoons}{narrows}{\mathrel}
{\tt 1270 \fdsy@DeclareSymbol{\nupdownharpoons}{narrows}{\tt \{mathrel\}}} \\
     \fdsy@DeclareAlias{\nupdownharpoonsleftright}{narrows}{\mathrel}
1272 \fdsy@DeclareSymbol{\nneswharpoons}{\narrows}{\mathrel}
1273 \fdsy@DeclareSymbol{\nsenwharpoons}{narrows}{\mathrel}
1274 \fdsy@DeclareSymbol{\nleftrightharpoons}{narrows}{\mathrel}
1275 \fdsy@DeclareSymbol{\ndownupharpoons}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownupharpoonsleftright}{narrows}{\mathrel}
1277 \fdsy@DeclareSymbol{\nswneharpoons}{narrows}{\mathrel}
1278 \fdsy@DeclareSymbol{\nnwseharpoons}{narrows}{\mathrel}
\fdsy@DeclareAlias{\ndasharrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndashrightarrow}{narrows}{\mathrel}
1282 \fdsy@DeclareSymbol{\nupbkarrow}{narrows}{\mathrel}
1283 \fdsy@DeclareSymbol{\nleftbkarrow}{\narrows}{\mathrel}
    \fdsy@DeclareAlias{\ndashleftarrow}{narrows}{\mathrel}
1285 \fdsy@DeclareSymbol{\ndownbkarrow}{narrows}{\mathrel}
1286 \fdsy@DeclareSymbol{\nnebkarrow}{\narrows}{\mathrel}
1287 \fdsy@DeclareSymbol{\nnwbkarrow}{\narrows}{\mathrel}
1288 \fdsy@DeclareSymbol{\nswbkarrow}{narrows}{\mathrel}
1289 \fdsy@DeclareSymbol{\nsebkarrow}{narrows}{\mathrel}
1290 \fdsy@DeclareSymbol{\nrightspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nmultimap}{narrows}{\mathrel}
1292 \fdsy@DeclareSymbol{\nupspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncirmid}{narrows}{\mathrel}
1294 \fdsy@DeclareSymbol{\nleftspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nmultimapinv}{narrows}{\mathrel}
1296 \fdsy@DeclareSymbol{\ndownspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nmidcir}{narrows}{\mathrel}
1298 \fdsy@DeclareSymbol{\nrightblackspoon}{narrows}{\mathrel}
1299 \fdsy@DeclareSymbol{\nupblackspoon}{narrows}{\mathrel}
1300 \fdsy@DeclareSymbol{\nleftblackspoon}{narrows}{\mathrel}
1301 \fdsy@DeclareSymbol{\ndownblackspoon}{narrows}{\mathrel}
1302 \fdsy@DeclareSymbol{\nleftrightspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndualmap}{narrows}{\mathrel}
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1304 \fdsy@DeclareSymbol{\nleftrightblackspoon}{narrows}{\mathrel}
1305 \fdsy@DeclareSymbol{\nblackwhitespoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nimageof}{narrows}{\mathrel}
1307 \fdsy@DeclareSymbol{\nwhiteblackspoon}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\norigof}{narrows}{\mathrel}
1309 \fdsy@DeclareSymbol{\nrightpitchfork}{narrows}{\mathrel}
1310 \fdsy@DeclareSymbol{\nuppitchfork}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\npitchfork}{narrows}{\mathrel}
1312 \fdsy@DeclareSymbol{\nleftpitchfork}{narrows}{\mathrel}
1313 \fdsy@DeclareSymbol{\ndownpitchfork}{narrows}{\mathrel}
1314 \fdsy@DeclareSymbol{\nrightrightarrows}{narrows}{\mathrel}
{\tt 1315 \fdsy@DeclareSymbol{\nupuparrows}{narrows}{\tt \{narrows\}{\tt \{}}} \\
1316 \fdsy@DeclareSymbol{\nleftleftarrows}{\narrows}{\mathrel}
1317 \fdsy@DeclareSymbol{\ndowndownarrows}{narrows}{\mathrel}
1318 \fdsy@DeclareSymbol{\nnenearrows}{\narrows}{\mathrel}
1319 \fdsy@DeclareSymbol{\nnwnwarrows}{\narrows}{\mathrel}
1320 \fdsy@DeclareSymbol{\nswswarrows}{\narrows}{\mathrel}
1321 \fdsy@DeclareSymbol{\nsesearrows}{\narrows}{\mathrel}
1322 \fdsy@DeclareSymbol{\nrightleftarrows}{\narrows}{\mathrel}
1323 \fdsy@DeclareSymbol{\nupdownarrows}{\narrows}{\mathrel}
1325 \fdsy@DeclareSymbol{\nnwsearrows}{\narrows}{\mathrel}
1326 \fdsy@DeclareSymbol{\nleftrightarrows}{narrows}{\mathrel}
1327 \fdsy@DeclareSymbol{\ndownuparrows}{\narrows}{\mathrel}
1328 \fdsy@DeclareSymbol{\nswnearrows}{\narrows}{\mathrel}
1329 \fdsy@DeclareSymbol{\nsenwarrows}{\narrows}{\mathrel}
1330 \fdsy@DeclareSymbol{\nrightwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleadsto}{narrows}{\mathrel}
1331
     \fdsy@DeclareAlias{\nrightsquigarrow}{narrows}{\mathrel}
1332
     \fdsy@DeclareAlias{\nrightcurvedarrow}{arrows}{\mathrel}
1333
1334
     \fdsy@DeclareAlias{\nrightlsquigarrow}{narrows}{\mathrel}
1335 \fdsy@DeclareSymbol{\nvarupwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nuplsquigarrow}{narrows}{\mathrel}
1337 \fdsy@DeclareSymbol{\nvarleftwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftlsquigarrow}{narrows}{\mathrel}
1339 \fdsy@DeclareSymbol{\ndownwavearrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownlsquigarrow}{narrows}{\mathrel}
1341 \fdsy@DeclareSymbol{\nvarrightwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nrightrsquigarrow}{narrows}{\mathrel}
1343 \fdsy@DeclareSymbol{\nupwavearrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nuprsquigarrow}{narrows}{\mathrel}
1345 \fdsy@DeclareSymbol{\nleftwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftsquigarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftcurvedarrow}{arrows}{\mathrel}
1347
     \fdsy@DeclareAlias{\nleftrsquigarrow}{narrows}{\mathrel}
```

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1349 \fdsy@DeclareSymbol{\nvardownwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownrsquigarrow}{narrows}{\mathrel}
1351 \fdsy@DeclareSymbol{\nleftrightwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftrightsquigarrow}{narrows}{\mathrel}
{\tt 1353 \fdsy@DeclareSymbol{\nupdownwavearrow}\{narrows}\{\narrows\}\} \\
     \fdsy@DeclareAlias{\nupdownsquigarrow}{\narrows}{\mathrel}
1355 \fdsy@DeclareSymbol{\nvarleftrightwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nrightleftsquigarrow}{narrows}{\mathrel}
1357 \fdsy@DeclareSymbol{\nvarupdownwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownupsquigarrow}{narrows}{\mathrel}
1359 \fdsy@DeclareSymbol{\ncwoverarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncurvearrowright}{narrows}{\mathrel}
1360
     \fdsy@DeclareAlias{\nrightlcurvearrow}{narrows}{\mathrel}
1362 \fdsy@DeclareSymbol{\ncwleftarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nuplcurvearrow}{narrows}{\mathrel}
1364 \fdsy@DeclareSymbol{\ncwunderarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftlcurvearrow}{narrows}{\mathrel}
1366 \fdsy@DeclareSymbol{\ncwrightarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownlcurvearrow}{narrows}{\mathrel}
1368 \fdsy@DeclareSymbol{\ncwnwarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nrightupcurvedarrow}{narrows}{\mathrel}
1369
     \fdsy@DeclareAlias{\nnelcurvearrow}{narrows}{\mathrel}
1371 \fdsy@DeclareSymbol{\ncwswarcarrow}{\narrows}{\mathrel}
     \fdsy@DeclareAlias{\nupleftcurvedarrow}{narrows}{\mathrel}
1372
     \fdsy@DeclareAlias{\nnwlcurvearrow}{narrows}{\mathrel}
1374 \fdsy@DeclareSymbol{\ncwsearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftdowncurvedarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nswlcurvearrow}{narrows}{\mathrel}
1377 \fdsy@DeclareSymbol{\ncwnearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownrightcurvedarrow}{narrows}{\mathrel}
1378
1379
     \fdsy@DeclareAlias{\nselcurvearrow}{narrows}{\mathrel}
1380 \fdsy@DeclareSymbol{\nacwunderarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nrightrcurvearrow}{narrows}{\mathrel}
1382 \fdsy@DeclareSymbol{\nacwrightarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nuprcurvearrow}{narrows}{\mathrel}
1384 \fdsy@DeclareSymbol{\nacwoverarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncurvearrowleft}{narrows}{\mathrel}
1385
     \fdsy@DeclareAlias{\nleftrcurvearrow}{narrows}{\mathrel}
1386
1387 \fdsy@DeclareSymbol{\nacwleftarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownrcurvearrow}{narrows}{\mathrel}
1389 \fdsy@DeclareSymbol{\nacwsearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nuprightcurvearrow}{narrows}{\mathrel}
1390
     \fdsy@DeclareAlias{\nnercurvearrow}{narrows}{\mathrel}
1392 \fdsy@DeclareSymbol{\nacwnearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftupcurvedarrow}{narrows}{\mathrel}
```

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\fdsy@DeclareAlias{\nnwrcurvearrow}{narrows}{\mathrel}
1395 \fdsy@DeclareSymbol{\nacwnwarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownleftcurvedarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nswrcurvearrow}{narrows}{\mathrel}
{\tt 1398 \fdsy@DeclareSymbol{\nacwswarcarrow}\{narrows}\{\nachrel\}}
     \fdsy@DeclareAlias{\nrightdowncurvedarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nsercurvearrow}{narrows}{\mathrel}
1400
1401 \fdsy@DeclareSymbol{\nbdoverarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nleftrightcurvearrow}{narrows}{\mathrel}
1403 \fdsy@DeclareSymbol{\nbdleftarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nupdowncurvearrow}{narrows}{\mathrel}
\fdsy@DeclareAlias{\nrightleftcurvearrow}{narrows}{\mathrel}
1407 \fdsy@DeclareSymbol{\nbdrightarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndownupcurvearrow}{narrows}{\mathrel}
1409 \fdsy@DeclareSymbol{\nbdnwarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nneswcurvearrow}{\narrows}{\mathrel}
1411 \fdsy@DeclareSymbol{\nbdswarcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nnwsecurvearrow}{narrows}{\mathrel}
1413 \fdsy@DeclareSymbol{\nbdsearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nswnecurvearrow}{narrows}{\mathrel}
1415 \fdsy@DeclareSymbol{\nbdnearcarrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nsenwcurvearrow}{narrows}{\mathrel}
1417 \fdsy@DeclareSymbol{\nleftfootline}{narrows}{\mathrel}
1418 \fdsy@DeclareSymbol{\nrightfootline}{narrows}{\mathrel}
1419 \fdsy@DeclareSymbol{\nacwcirclearrowup}{narrows}{\mathrel}
1420 \fdsy@DeclareSymbol{\nacwcirclearrowleft}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncirclearrowleft}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nacwopencirclearrow}{narrows}{\mathrel}
1423 \fdsy@DeclareSymbol{\nacwcirclearrowdown}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nacwgapcirclearrow}{\narrows}{\mathrel}
1425 \fdsy@DeclareSymbol{\nacwcirclearrowright}{narrows}{\mathrel}
1426 \fdsy@DeclareSymbol{\ncwcirclearrowdown}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncwgapcirclearrow}{narrows}{\mathrel}
1428 \fdsy@DeclareSymbol{\ncwcirclearrowright}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncirclearrowright}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ncwopencirclearrow}{narrows}{\mathrel}
1431 \fdsy@DeclareSymbol{\ncwcirclearrowup}{narrows}{\mathrel}
1432 \fdsy@DeclareSymbol{\ncwcirclearrowleft}{narrows}{\mathrel}
1433 \fdsy@DeclareSymbol{\nRrightarrow}{narrows}{\mathrel}
1434 \fdsy@DeclareSymbol{\nUuparrow}{narrows}{\mathrel}
1435 \fdsy@DeclareSymbol{\nLleftarrow}{narrows}{\mathrel}
1436 \fdsy@DeclareSymbol{\nDdownarrow}{narrows}{\mathrel}
1437 \fdsy@DeclareSymbol{\nlongrightarrow}{narrows}{\mathrel}
1438 \fdsy@DeclareSymbol{\nlongleftarrow}{narrows}{\mathrel}
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1439 \fdsy@DeclareSymbol{\nLongrightarrow}{narrows}{\mathrel}
1440 \fdsy@DeclareSymbol{\nLongleftarrow}{narrows}{\mathrel}
1441 \fdsy@DeclareSymbol{\nlongleftrightarrow}{narrows}{\mathrel}
1442 \fdsy@DeclareSymbol{\nLongleftrightarrow}{narrows}{\mathrel}
{\tt 1443 \fdsy@DeclareSymbol{\nlongmapsto}\{narrows\}\{\mbox{\tt mathrel}\}} \\
1444 \fdsy@DeclareSymbol{\nlongmapsfrom}{narrows}{\mathrel}
1445 \fdsy@DeclareSymbol{\nLongmapsto}{narrows}{\mathrel}
1446 \fdsy@DeclareSymbol{\nLongmapsfrom}{narrows}{\mathrel}
1447 \fdsy@DeclareSymbol{\nlongrightwavearrow}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nlongleadsto}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nlongrightsquigarrow}{narrows}{\mathrel}
{\tt 1450 \fdsy@DeclareSymbol{\nlongleftwavearrow}\{narrows}\{\nlongleftwavearrow\}\}
     \fdsy@DeclareAlias{\nlongleftsquigarrow}{narrows}{\mathrel}
1452 \fdsy@DeclareSymbol{\nlongleftfootline}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nvlongdash}{narrows}{\mathrel}
1454 \fdsy@DeclareSymbol{\nlongrightfootline}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nlongdashv}{narrows}{\mathrel}
1456 \fdsy@setslot{224}
1457 \fdsy@DeclareSymbol{\nrightvdash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nvdash}{narrows}{\mathrel}
\fdsy@DeclareAlias{\nperp}{narrows}{\mathrel}
1461 \fdsy@DeclareSymbol{\nleftvdash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndashv}{narrows}{\mathrel}
1463 \fdsy@DeclareSymbol{\ndownvdash}{narrows}{\mathrel}
1464 \fdsy@DeclareSymbol{\nrightassert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nassert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nshortrighttack}{narrows}{\mathrel}
1467 \fdsy@DeclareSymbol{\nupassert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nshortuptack}{narrows}{\mathrel}
1469 \fdsy@DeclareSymbol{\nleftassert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nshortlefttack}{narrows}{\mathrel}
1471 \fdsy@DeclareSymbol{\ndownassert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nshortdowntack}{narrows}{\mathrel}
1473 \fdsy@DeclareSymbol{\nrightvDash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nvDash}{narrows}{\mathrel}
1475 \fdsy@DeclareSymbol{\nupvDash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nVbar}{narrows}{\mathrel}
1477 \fdsy@DeclareSymbol{\nleftvDash}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\nDashv}{narrows}{\mathrel}
1479 \fdsy@DeclareSymbol{\ndownvDash}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\nbarV}{narrows}{\mathrel}
1481 \fdsy@DeclareSymbol{\nrightmodels}{\narrows}{\mathrel}
    \fdsy@DeclareAlias{\nmodels}{narrows}{\mathrel}
1483 \fdsy@DeclareSymbol{\nupmodels}{\narrows}{\mathrel}
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1484 \fdsy@DeclareSymbol{\nleftmodels}{narrows}{\mathrel}
1485 \fdsy@DeclareSymbol{\ndownmodels}{narrows}{\mathrel}
1486 \fdsy@DeclareSymbol{\nrightVdash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nVdash}{narrows}{\mathrel}
1489 \fdsy@DeclareSymbol{\nleftVdash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\ndashV}{narrows}{\mathrel}
1491 \fdsy@DeclareSymbol{\ndownVdash}{narrows}{\mathrel}
1492 \fdsy@DeclareSymbol{\nrightAssert}{narrows}{\mathrel}
1493 \fdsy@DeclareAlias{\nAssert}{narrows}{\mathrel}
1494 \fdsy@DeclareSymbol{\nupAssert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nvBar}{narrows}{\mathrel}
1496 \fdsy@DeclareSymbol{\nleftAssert}{narrows}{\mathrel}
1497 \fdsy@DeclareSymbol{\ndownAssert}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nBarv}{narrows}{\mathrel}
1499 \fdsy@DeclareSymbol{\nrightVDash}{narrows}{\mathrel}
     \fdsy@DeclareAlias{\nVDash}{narrows}{\mathrel}
1501 \fdsy@DeclareSymbol{\nupVDash}{narrows}{\mathrel}
1502 \fdsy@DeclareSymbol{\nleftVDash}{narrows}{\mathrel}
    \fdsy@DeclareAlias{\nDashV}{narrows}{\mathrel}
1504\fdsy@DeclareSymbol{\ndownVDash}{narrows}{\mathrel}
1505 \fdsy@DeclareSymbol{\nVvdash}{narrows}{\mathrel}
1506 \fdsy@DeclareSymbol{\ndashVv}{narrows}{\mathrel}
1507 \fdsy@DeclareSymbol{\nvDdash}{narrows}{\mathrel}
1508 \fdsy@DeclareSymbol{\nDdashv}{narrows}{\mathrel}
FdSymbolE: large operators
1509 \fdsy@setslot{0}
1510 \fdsy@DeclareSymbol{\tbigplus}{largesymbols}{\mathop}
1511 \fdsy@DeclareSymbol{\dbigplus}{largesymbols}{\mathop}
1512 \fdsy@DeclareSymbol{\tbigtimes}{largesymbols}{\mathop}
1513 \fdsy@DeclareSymbol{\dbigtimes}{largesymbols}{\mathop}
1514\fdsy@DeclareSymbol{\tbigwedge}{largesymbols}{\mathop}
1515 \fdsy@DeclareSymbol{\dbigwedge}{largesymbols}{\mathop}
1516 \fdsy@DeclareSymbol{\tbigvee}{largesymbols}{\mathop}
1517 \fdsy@DeclareSymbol{\dbigvee}{largesymbols}{\mathop}
1518 \fdsy@DeclareSymbol{\tbigwedgedot}{largesymbols}{\mathop}
1519 \fdsy@DeclareSymbol{\dbigwedgedot}{largesymbols}{\mathop}
1520 \fdsy@DeclareSymbol{\tbigveedot}{largesymbols}{\mathop}
1521 \fdsy@DeclareSymbol{\dbigveedot}{largesymbols}{\mathop}
1522 \fdsy@DeclareSymbol{\tbigdoublewedge}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tconjquant}{largesymbols}{\mathop}
1524 \fdsy@DeclareSymbol{\dbigdoublewedge}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dconjquant}{largesymbols}{\mathop}
1526 \fdsy@DeclareSymbol{\tbigdoublevee}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tdisjquant}{largesymbols}{\mathop}
```

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1528\fdsy@DeclareSymbol{\dbigdoublevee}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\ddisjquant}{largesymbols}{\mathop}
1530 \fdsy@DeclareSymbol{\tbigcurlywedge}{largesymbols}{\mathop}
1531 \fdsy@DeclareSymbol{\dbigcurlywedge}{largesymbols}{\mathop}
\label{largesymbol} $$1532 \fdsy@DeclareSymbol{\tbigcurlyvee}{largesymbols}{\mathbb T}$
1533 \fdsy@DeclareSymbol{\dbigcurlyvee}{largesymbols}{\mathop}
1534 \fdsy@DeclareSymbol{\tbigcap}{largesymbols}{\mathop}
1535 \fdsy@DeclareSymbol{\dbigcap}{largesymbols}{\mathop}
1536 \fdsy@DeclareSymbol{\tbigcup}{largesymbols}{\mathop}
1537 \fdsy@DeclareSymbol{\dbigcup}{largesymbols}{\mathop}
1538 \fdsy@DeclareSymbol{\tbigcapdot}{largesymbols}{\mathop}
1539 \fdsy@DeclareSymbol{\dbigcapdot}{largesymbols}{\mathop}
1540 \fdsy@DeclareSymbol{\tbigcupdot}{largesymbols}{\mathop}
1541 \fdsy@DeclareSymbol{\dbigcupdot}{largesymbols}{\mathop}
1542 \fdsy@DeclareSymbol{\tbigcapplus}{largesymbols}{\mathop}
1543 \fdsy@DeclareSymbol{\dbigcapplus}{largesymbols}{\mathop}
1544 \fdsy@DeclareSymbol{\tbigcupplus}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tbiguplus}{largesymbols}{\mathop}
1546 \fdsy@DeclareSymbol{\dbigcupplus}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dbiguplus}{largesymbols}{\mathop}
1548 \fdsy@DeclareSymbol{\tbigsqcap}{largesymbols}{\mathop}
1549 \fdsy@DeclareSymbol{\dbigsqcap}{largesymbols}{\mathop}
1550 \fdsy@DeclareSymbol{\tbigsqcup}{largesymbols}{\mathop}
1551 \fdsy@DeclareSymbol{\dbigsqcup}{largesymbols}{\mathop}
1552 \fdsy@DeclareSymbol{\tbigsqcapdot}{largesymbols}{\mathop}
1553 \fdsy@DeclareSymbol{\dbigsqcapdot}{largesymbols}{\mathop}
1554\fdsy@DeclareSymbol{\tbigsqcupdot}{largesymbols}{\mathop}
1555 \fdsy@DeclareSymbol{\dbigsqcupdot}{largesymbols}{\mathop}
1556 \fdsy@DeclareSymbol{\tbigsqcapplus}{largesymbols}{\mathop}
1557 \fdsy@DeclareSymbol{\dbigsqcapplus}{largesymbols}{\mathop}
1558 \fdsy@DeclareSymbol{\tbigsqcupplus}{largesymbols}{\mathop}
1559 \fdsy@DeclareSymbol{\dbigsqcupplus}{largesymbols}{\mathop}
1560 \fdsy@DeclareSymbol{\tbigoplus}{largesymbols}{\mathop}
1561 \fdsy@DeclareSymbol{\dbigoplus}{largesymbols}{\mathop}
1562 \fdsy@DeclareSymbol{\tbigotimes}{largesymbols}{\mathop}
1563 \fdsy@DeclareSymbol{\dbigotimes}{largesymbols}{\mathop}
1564\fdsy@DeclareSymbol{\tbigodot}{largesymbols}{\mathop}
1565 \fdsy@DeclareSymbol{\dbigodot}{largesymbols}{\mathop}
1566 \fdsy@DeclareSymbol{\tbigoast}{largesymbols}{\mathop}
1567 \fdsy@DeclareSymbol{\dbigoast}{largesymbols}{\mathop}
1568 \fdsy@DeclareSymbol{\tprod}{largesymbols}{\mathop}
1569 \fdsy@DeclareSymbol{\dprod}{largesymbols}{\mathop}
1570 \fdsy@DeclareSymbol{\tvarprod}{largesymbols}{\mathop}
1571 \fdsy@DeclareSymbol{\dvarprod}{largesymbols}{\mathop}
1572 \fdsy@DeclareSymbol{\tcoprod}{largesymbols}{\mathop}
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1573 \fdsy@DeclareSymbol{\dcoprod}{largesymbols}{\mathop}
1574 \fdsy@DeclareSymbol{\tvarcoprod}{largesymbols}{\mathop}
1575 \fdsy@DeclareSymbol{\dvarcoprod}{largesymbols}{\mathop}
1576 \fdsy@DeclareSymbol{\tsum}{largesymbols}{\mathop}
\label{largesymbols} $$1577 \fdsy@DeclareSymbol{\dsum}{largesymbols}{\mathbb {}}$
1578 \fdsy@DeclareSymbol{\tvarsum}{largesymbols}{\mathop}
1579 \fdsy@DeclareSymbol{\dvarsum}{largesymbols}{\mathop}
1580 \fdsy@DeclareSymbol{\tosum}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tmodtwosum}{largesymbols}{\mathop}
1582 \fdsy@DeclareSymbol{\dosum}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dmodtwosum}{largesymbols}{\mathop}
1584 \fdsy@DeclareSymbol{\tvarosum}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tvarmodtwosum}{largesymbols}{\mathop}
1586 \fdsy@DeclareSymbol{\dvarosum}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dvarmodtwosum}{largesymbols}{\mathop}
1588 \fdsy@DeclareSymbol{\tint}{largesymbols}{\mathop}
1589 \fdsy@DeclareSymbol{\dint}{largesymbols}{\mathop}
1590 \fdsy@DeclareSymbol{\tiint}{largesymbols}{\mathop}
1591 \fdsy@DeclareSymbol{\diint}{largesymbols}{\mathop}
1592 \fdsy@DeclareSymbol{\tiiint}{largesymbols}{\mathop}
1593 \fdsy@DeclareSymbol{\diiint}{largesymbols}{\mathop}
1594 \fdsy@DeclareSymbol{\tiiiint}{largesymbols}{\mathop}
1595 \fdsy@DeclareSymbol{\diiiint}{largesymbols}{\mathop}
1596 \fdsy@DeclareSymbol{\tidotsint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tdotsint}{largesymbols}{\mathop}
1598 \fdsy@DeclareSymbol{\didotsint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\ddotsint}{largesymbols}{\mathop}
1600 \fdsy@DeclareSymbol{\tlandupint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tintclockwise}{largesymbols}{\mathop}
1602 \fdsy@DeclareSymbol{\dlandupint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dintclockwise}{largesymbols}{\mathop}
1604\fdsy@DeclareSymbol{\tlanddownint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\tawint}{largesymbols}{\mathop}
1605
     \fdsy@DeclareAlias{\tintctrclockwise}{largesymbols}{\mathop}
1607 \fdsy@DeclareSymbol{\dlanddownint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dawint}{largesymbols}{\mathop}
     \fdsy@DeclareAlias{\dintctrclockwise}{largesymbols}{\mathop}
1610 \fdsy@DeclareSymbol{\tintbar}{largesymbols}{\mathop}
1611 \fdsy@DeclareSymbol{\dintbar}{largesymbols}{\mathop}
1612 \fdsy@DeclareSymbol{\tintBar}{largesymbols}{\mathop}
1613 \fdsy@DeclareSymbol{\dintBar}{largesymbols}{\mathop}
1614 \fdsy@DeclareSymbol{\tfint}{largesymbols}{\mathop}
1615 \fdsy@DeclareSymbol{\dfint}{largesymbols}{\mathop}
1616 \fdsy@DeclareSymbol{\toint}{largesymbols}{\mathop}
1617 \fdsy@DeclareSymbol{\doint}{largesymbols}{\mathop}
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1618 \fdsy@DeclareSymbol{\toiint}{largesymbols}{\mathop}
1619 \fdsy@DeclareSymbol{\doiint}{largesymbols}{\mathop}
1620 \fdsy@DeclareSymbol{\toiiint}{largesymbols}{\mathop}
1621 \fdsy@DeclareSymbol{\doiiint}{largesymbols}{\mathop}
\label{thm:local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local
            \fdsy@DeclareAlias{\tointctrclockwise}{largesymbols}{\mathop}
1624 \fdsy@DeclareSymbol{\drcirclerightint}{largesymbols}{\mathop}
             \fdsy@DeclareAlias{\dointctrclockwise}{largesymbols}{\mathop}
1626 \fdsy@DeclareSymbol{\tlcirclerightint}{largesymbols}{\mathop}
             \fdsy@DeclareAlias{\tvarointclockwise}{largesymbols}{\mathop}
1628 \fdsy@DeclareSymbol{\dlcirclerightint}{largesymbols}{\mathop}
             \fdsy@DeclareAlias{\dvarointclockwise}{largesymbols}{\mathop}
1630 \fdsy@DeclareSymbol{\trcircleleftint}{largesymbols}{\mathop}
             \fdsy@DeclareAlias{\tvarointctrclockwise}{largesymbols}{\mathop}
1632 \fdsy@DeclareSymbol{\drcircleleftint}{largesymbols}{\mathop}
            \fdsy@DeclareAlias{\dvarointctrclockwise}{largesymbols}{\mathop}
1634 \fdsy@DeclareSymbol{\tlcircleleftint}{largesymbols}{\mathop}
            \fdsy@DeclareAlias{\tointclockwise}{largesymbols}{\mathop}
1636 \fdsy@DeclareSymbol{\dlcircleleftint}{largesymbols}{\mathop}
            \fdsy@DeclareAlias{\dointclockwise}{largesymbols}{\mathop}
1638 \fdsy@DeclareSymbol{\tsumint}{largesymbols}{\mathop}
1639 \fdsy@DeclareSymbol{\dsumint}{largesymbols}{\mathop}
1640 \fdsy@DeclareSymbol{\tvarsumint}{largesymbols}{\mathop}
1641 \fdsy@DeclareSymbol{\dvarsumint}{largesymbols}{\mathop}
1642 \let\intop\tint
1643 \let\ointop\toint
1645 \fdsy@DeclareOperator{\bigplus}{\dbigplus}{\tbigplus}
1646 \fdsy@DeclareOperator{\bigtimes}{\\dbigtimes}{\\tbigtimes}
1647 \fdsy@DeclareOperator{\bigwedge}{\dbigwedge}{\tbigwedge}
1648 \fdsy@DeclareOperator{\bigvee}{\dbigvee}{\tbigvee}
1649 \fdsy@DeclareOperator{\bigwedgedot}{\\dbigwedgedot}{\\tbigwedgedot}
1650 \fdsy@DeclareOperator{\bigveedot}{\dbigveedot}{\tbigveedot}
1651\fdsy@DeclareOperator{\bigdoublewedge}{\dbigdoublewedge}{\tbigdoublewedge}
1652 \fdsy@DeclareOperator{\conjquant}{\dconjquant}{\tconjquant}
1653 \fdsy@DeclareOperator{\bigdoublevee}{\dbigdoublevee}{\tbigdoublevee}
1654 \fdsy@DeclareOperator{\disjquant}{\ddisjquant}{\tdisjquant}
1655 \fdsy@DeclareOperator{\bigcurlywedge}{\\dbigcurlywedge}{\\tbigcurlywedge}
1656 \fdsy@DeclareOperator{\bigcurlyvee}{\dbigcurlyvee}{\tbigcurlyvee}
1657 \fdsy@DeclareOperator{\bigcurlywedgedot}{\dbigcurlywedgedot}{\tbigcurlywedgedot}
1658 \fdsy@DeclareOperator{\bigcurlyveedot}{\dbigcurlyveedot}{\tbigcurlyveedot}
1659 \fdsy@DeclareOperator{\bigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlywedge}{\dbigdoublecurlyw
1660 \fdsy@DeclareOperator{\bigdoublecurlyvee}{\dbigdoublecurlyvee}{\tbigdoublecurlyvee}
1661 \fdsy@DeclareOperator{\bigcap}{\dbigcap}{\tbigcap}
1662 \fdsy@DeclareOperator{\bigcup}{\dbigcup}{\tbigcup}
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1663 \fdsy@DeclareOperator{\bigcapdot}{\dbigcapdot}{\tbigcapdot}
1664 \fdsy@DeclareOperator{\bigcupdot}{\dbigcupdot}{\tbigcupdot}
1665 \fdsy@DeclareOperator{\bigcapplus}{\\dbigcapplus}{\\tbigcapplus}
1666 \fdsy@DeclareOperator{\bigcupplus}{\dbigcupplus}{\tbigcupplus}
{\tt 1667 \fdsy@DeclareOperator\{\biguplus\}\{\tbiguplus\}\{\tbiguplus\}\{\tbiguplus\}\{\tbiguplus\}\}} \\
1668 \fdsy@DeclareOperator{\bigsqcap}{\dbigsqcap}{\tbigsqcap}
1669 \fdsy@DeclareOperator{\bigsqcup}{\dbigsqcup}{\tbigsqcup}
1670 \fdsy@DeclareOperator{\bigsqcapdot}{\\dbigsqcapdot}{\\tbigsqcapdot}
1671 \fdsy@DeclareOperator{\bigsqcupdot}{\\dbigsqcupdot}{\\tbigsqcupdot}
1673 \fdsy@DeclareOperator{\bigsqcupplus}{\dbigsqcupplus}{\tbigsqcupplus}
1674 \fdsy@DeclareOperator{\bigoplus}{\dbigoplus}{\tbigoplus}
1675 \fdsy@DeclareOperator{\bigotimes}{\dbigotimes}{\tbigotimes}
1676 \fdsy@DeclareOperator{\bigodot}{\dbigodot}{\tbigodot}
1677 \fdsy@DeclareOperator{\bigoast}{\dbigoast}{\tbigoast}
1679 \fdsy@DeclareOperator{\varprod}{\dvarprod}{\tvarprod}
1680 \fdsy@DeclareOperator{\coprod}{\dcoprod}{\tcoprod}
1681 \fdsy@DeclareOperator{\varcoprod}{\dvarcoprod}{\tvarcoprod}
1682 \fdsy@DeclareOperator{\sum}{\dsum}{\tsum}
1683 \fdsy@DeclareOperator{\varsum}{\dvarsum}{\tvarsum}
1685 \fdsy@DeclareOperator{\varosum}{\dvarosum}{\tvarosum}
1686 \fdsy@DeclareOperator{\modtwosum}{\dmodtwosum}{\tmodtwosum}
1687 \fdsy@DeclareOperator{\varmodtwosum}{\dvarmodtwosum}{\tvarmodtwosum}
1688 \fdsy@DeclareIntegral{\iint}{\diint}{\tiint}
1689 \fdsy@DeclareIntegral{\iiint}{\diiint}{\tiiint}
1690 \fdsy@DeclareIntegral{\iiiint}{\diiint}{\tiiiint}
1691 \fdsy@DeclareIntegral{\idotsint}{\didotsint}{\tidotsint}
1692 \fdsy@DeclareIntegral{\dotsint}{\ddotsint}{\tdotsint}
1694 \fdsy@DeclareIntegral{\intclockwise}{\dintclockwise}
1695 \fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1696 \fdsy@DeclareIntegral{\awint}{\dawint}{\tawint}
1697 \fdsy@DeclareIntegral{\intctrclockwise}{\dintctrclockwise}{\tintctrclockwise}
1698\fdsy@DeclareIntegral{\landdownint}{\dlanddownint}{\tlanddownint}
1699 \fdsy@DeclareIntegral{\intbar}{\dintbar}{\tintbar}
1700 \fdsy@DeclareIntegral{\intBar}{\dintBar}{\tintBar}
1701 \fdsy@DeclareIntegral{\fint}{\dfint}{\tfint}
1702 \fdsy@DeclareIntegral{\oiint}{\doiint}{\toiint}
1703 \fdsy@DeclareIntegral{\oiiint}{\doiiint}{\toiiint}
1704 \fdsy@DeclareIntegral{\rcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drcirclerightint}{\drc
1705\fdsy@DeclareIntegral{\ointctrclockwise}{\dointctrclockwise}{\tointctrclockwise}
1706\fdsy@DeclareIntegral{\lcirclerightint}{\\dlcirclerightint}{\\dlcirclerightint}
\label{lockwise} In the property of the prop
```

```
1708\fdsy@DeclareIntegral{\rcircleleftint}{\drcircleleftint}{\drcircleleftint}
1709 \fdsy@DeclareIntegral{\varointctrclockwise}{\dvarointctrclockwise}{\tvarointctrclockwise}
1710 \fdsy@DeclareIntegral{\lcircleleftint}{\\dlcircleleftint}{\\tlcircleleftint}
1711 \fdsy@DeclareIntegral{\ointclockwise}{\dointclockwise}{\tointclockwise}
1712 \fdsy@DeclareIntegral{\sumint}{\dsumint}{\tsumint}
1713 \fdsy@DeclareIntegral{\varsumint}{\dvarsumint}{\tvarsumint}
1715 \def\intkern@{\mkern-8.5mu\mathchoice{\mkern-1mu}{}{}{}}
1716 \def\intdots@{\mkern-6mu%
     \mathchoice{\@cdots}%
     {{\cdotp}\mkern0.5mu{\cdotp}}%
1718
     {{\cdotp}{\cdotp}}%
1719
     {{\cdotp}{\cdotp}}%
     \mkern-6mu}
1721
Math accents.
1722 \DeclareMathAccent{\widehat}{\mathord}{largesymbols}{"72}
1723 \DeclareMathAccent{\widetilde}{\mathord}{largesymbols}{"78}
1724 \DeclareMathAccent{\wideparen}{\mathord}{\largesymbols}{"7E}
1725 \DeclareMathAccent{\vec}{\mathord}{largesymbols}{"84}
1726 \DeclareMathAccent{\middlebar}{\mathord}{largesymbols}{"85}
1727 \DeclareMathAccent{\middleslash}{\mathord}{largesymbols}{"86}
1728 \DeclareMathAccent{\strokethrough}{\mathord}{\largesymbols}{"87}
FdSymbolF: delimiters
1729 \let\lfloor\undefined
1730 \let\rfloor\undefined
1731 \let\lceil\undefined
1732 \let\rceil\undefined
1733 \let\langle\undefined
1734 \let\rangle\undefined
1735 \iffdsy@largedelims
1736
     \fdsy@DeclareOpen{(){delimiters}{"01}
     \fdsy@DeclareClose{)){delimiters}{"07}
1737
     \fdsy@DeclareOpen{\lparen}{delimiters}{"01}
1738
     \fdsy@DeclareClose{\rparen}{delimiters}{"07}
1739
     \fdsy@DeclareOpen{[}{delimiters}{"13}
1740
     \fdsy@DeclareClose{]}{delimiters}{"19}
1741
     \fdsy@DeclareOpen{\lbrack}{delimiters}{"13}
1742
     \fdsy@DeclareClose{\rbrack}{delimiters}{"19}
1743
     \fdsy@DeclareOpen{\lfloor}{delimiters}{"1F}
1744
     \fdsy@DeclareClose{\rfloor}{delimiters}{"25}
1745
     \fdsy@DeclareOpen{\lceil}{delimiters}{"2B}
1746
     \fdsy@DeclareClose{\rceil}{delimiters}{"31}
1747
     \fdsy@DeclareOpen{\ulcorner}{delimiters}{"37}
1748
     \fdsy@DeclareClose{\urcorner}{delimiters}{"3D}
1749
```

\fdsy@DeclareOpen{\llcorner}{delimiters}{"43}

```
\fdsy@DeclareClose{\lrcorner}{delimiters}{"49}
1751
     \fdsy@DeclareOpen{\ullcorner}{delimiters}{"4F}
1752
1753
     \fdsy@DeclareClose{\ulrcorner}{delimiters}{"55}
     \fdsy@DeclareOpen{\lsem}{delimiters}{"61}
1754
     \fdsy@DeclareClose{\rsem}{delimiters}{"67}
1755
     \fdsy@DeclareOpen{\lBrack}{delimiters}{"61}
1756
     \fdsy@DeclareClose{\rBrack}{delimiters}{"67}
1757
1758
     \fdsy@DeclareOpen{\lbrace}{delimiters}{"73}
     \fdsy@DeclareClose{\rbrace}{delimiters}{"79}
1759
     \fdsy@DeclareOpen{<}{delimiters}{"86}
1760
     \fdsy@DeclareClose{>}{delimiters}{"8C}
1761
     \fdsy@DeclareOpen{\langle}{delimiters}{"86}
1762
     \fdsy@DeclareClose{\rangle}{delimiters}{"8C}
1763
     \fdsy@DeclareOpen{\lAngle}{delimiters}{"92}
1764
1765
     \fdsy@DeclareClose{\rAngle}{delimiters}{"98}
     \fdsy@DeclareOpen{\langledot}{delimiters}{"9E}
1766
     \fdsy@DeclareClose{\rangledot}{delimiters}{"A4}
1767
     \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{"AA}
1768
     \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{"AA}
1769
     1770
     \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{"B0}
1771
1772
     \expandafter\DeclareMathDelimiter\@backslashchar%
       {\mathord}{delimiters}{"B0}{delimiters}{"B0}
1773
     \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{"B0}
1774
1775
     \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{"B7}
     \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{"B7}
1776
1777
     \fdsy@DeclareOpen{\lvert}{delimiters}{"B7}
     \fdsy@DeclareClose{\rvert}{delimiters}{"B7}
1778
     \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{"B7}
1779
     1780
     \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{"BE}
1781
     \fdsy@DeclareOpen{\lVert}{delimiters}{"BE}
1782
     \fdsy@DeclareClose{\rVert}{delimiters}{"BE}
1783
     \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{"BE}
1784
     \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{"C1}
1785
     \fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{"C4}
1786
     \fdsy@DeclareOpen{\lVvert}{delimiters}{"C4}
1787
     \fdsy@DeclareClose{\rVvert}{delimiters}{"C4}
1788
1789 \else
     \fdsy@DeclareOpen{(){delimiters}{"00}
1790
1791
     \fdsy@DeclareClose{)}{delimiters}{"06}
1792
     \fdsy@DeclareOpen{\lparen}{delimiters}{"00}
     \fdsy@DeclareClose{\rparen}{delimiters}{"06}
1793
     \fdsy@DeclareOpen{[]{delimiters}{"12}
1794
```

\fdsy@DeclareClose{]}{delimiters}{"18}

```
\fdsy@DeclareOpen{\lbrack}{delimiters}{"12}
1796
     \fdsy@DeclareClose{\rbrack}{delimiters}{"18}
1797
     \fdsy@DeclareOpen{\lfloor}{delimiters}{"1E}
1798
     \fdsy@DeclareClose{\rfloor}{delimiters}{"24}
1799
     \fdsy@DeclareOpen{\lceil}{delimiters}{"2A}
1800
     \fdsy@DeclareClose{\rceil}{delimiters}{"30}
1801
     \fdsy@DeclareOpen{\ulcorner}{delimiters}{"36}
1802
1803
     \fdsy@DeclareClose{\urcorner}{delimiters}{"3C}
     \fdsy@DeclareOpen{\llcorner}{delimiters}{"42}
1804
     \fdsy@DeclareClose{\lrcorner}{delimiters}{"48}
1805
1806
     \fdsy@DeclareOpen{\ullcorner}{delimiters}{"4E}
     \fdsy@DeclareClose{\ulrcorner}{delimiters}{"54}
1807
     \fdsy@DeclareOpen{\lsem}{delimiters}{"60}
1808
     \fdsy@DeclareClose{\rsem}{delimiters}{"66}
1809
1810
     \fdsy@DeclareOpen{\lBrack}{delimiters}{"60}
     \fdsy@DeclareClose{\rBrack}{delimiters}{"66}
1811
     \fdsy@DeclareOpen{\lbrace}{delimiters}{"72}
1812
     \fdsy@DeclareClose{\rbrace}{delimiters}{"78}
1813
     \fdsy@DeclareOpen{<}{delimiters}{"85}
1814
     \fdsy@DeclareClose{>}{delimiters}{"8B}
1815
     \fdsy@DeclareOpen{\langle}{delimiters}{"85}
1816
1817
     \fdsy@DeclareClose{\rangle}{delimiters}{"8B}
     \fdsy@DeclareOpen{\lAngle}{delimiters}{"91}
1818
     \fdsy@DeclareClose{\rAngle}{delimiters}{"97}
1819
1820
     \fdsy@DeclareOpen{\langledot}{delimiters}{"9D}
     \fdsy@DeclareClose{\rangledot}{delimiters}{"A3}
1821
1822
     \fdsy@DeclareDelimiter{/}{\mathord}{delimiters}{"A9}
     \fdsy@DeclareDelimiter{\mathslash}{\mathord}{delimiters}{"A9}
1823
     \DeclareMathSymbol{\divslash}{\mathbin}{delimiters}{"A9}
1824
     \fdsy@DeclareDelimiter{\backslash}{\mathord}{delimiters}{"AF}
1825
     \expandafter\DeclareMathDelimiter\@backslashchar%
1826
        {\mathord}{delimiters}{"AF}{delimiters}{"AF}
1827
     \DeclareMathSymbol{\setminus}{\mathbin}{delimiters}{"AF}
1828
     \fdsy@DeclareDelimiter{|}{\mathord}{delimiters}{"B6}
1829
     \fdsy@DeclareDelimiter{\vert}{\mathord}{delimiters}{"B6}
1830
1831
     \fdsy@DeclareOpen{\lvert}{delimiters}{"B6}
     \fdsy@DeclareClose{\rvert}{delimiters}{"B6}
1832
     \DeclareMathSymbol{\mid}{\mathrel}{delimiters}{"B6}
1833
     \DeclareMathSymbol{\nmid}{\mathrel}{delimiters}{"B9}
1834
     \fdsy@DeclareDelimiter{\Vert}{\mathord}{delimiters}{"BD}
1835
1836
     \fdsy@DeclareOpen{\lVert}{delimiters}{"BD}
1837
     \fdsy@DeclareClose{\rVert}{delimiters}{"BD}
     \DeclareMathSymbol{\parallel}{\mathrel}{delimiters}{"BD}
1838
     \DeclareMathSymbol{\nparallel}{\mathrel}{delimiters}{"CO}
1839
```

\fdsy@DeclareDelimiter{\Vvert}{\mathord}{delimiters}{"C3}

1840

```
\fdsy@DeclareOpen{\lVvert}{delimiters}{"C3}
              \fdsy@DeclareClose{\rVvert}{delimiters}{"C3}
1842
1843 \fi
1844 \let\|\Vert
1845 \let\divides\mid
1846 \let\ndivides\nmid
1847 \DeclareMathSymbol{\shortmid}{\mathrel}{delimiters}{"B5}
1848 \DeclareMathSymbol{\nshortmid}{\mathrel}{delimiters}{"B8}
1849 \DeclareMathSymbol{\shortparallel}{\mathrel}{delimiters}{"BC}
1850 \DeclareMathSymbol{\nshortparallel}{\mathrel}{delimiters}{"BF}
1851 \fdsy@DeclareDelimiter{\arrowvert}{\mathord}{delimiters}{"BB}
1852 \fdsy@DeclareDelimiter{\Arrowvert}{\mathord}{delimiters}{"C2}
1853 \fdsy@DeclareClose{\lgroup}{delimiters}{"7E}
1854 \fdsy@DeclareOpen{\rgroup}{delimiters}{"7F}
1855 \fdsy@DeclareClose{\rmoustache}{delimiters}{"80}
1856 \fdsy@DeclareOpen{\lmoustache}{delimiters}{"81}
1857 \fdsy@DeclareDelimiter{\bracevert}{\mathord}{delimiters}{"84}
1858 \let\uparrow\undefined
1859 \let\downarrow\undefined
1860 \let\updownarrow\undefined
1861 \let\Uparrow\undefined
1862 \let\Downarrow\undefined
1863 \let\Updownarrow\undefined
1864 \DeclareMathDelimiter{\uparrow}{\mathrel}{arrows}{\"01}{delimiters}{\"C6}
\label{limiter} $$1865 \end{constraint} $$ \
1867 \DeclareMathDelimiter{\Uparrow}{\mathrel}{arrows}{"09}{delimiters}{"C9}
1869 \DeclareMathDelimiter{\Updownarrow}{\mathrel}{arrows}{"15}{delimiters}{"CB}
 Horizontal braces.
1870 \DeclareMathSymbol{\braceld}{\mathord}{delimiters}{"CC}
1871 \DeclareMathSymbol{\bracelu}{\mathord}{delimiters}{"CD}
1872 \DeclareMathSymbol{\bracerd}{\mathord}{delimiters}{"CE}
1873 \DeclareMathSymbol{\braceru}{\mathord}{delimiters}{"CF}
1874 \DeclareMathSymbol{\bracemd}{\mathord}{delimiters}{"D0}
1875 \DeclareMathSymbol{\bracemu}{\mathord}{delimiters}{"D1}
1876 \DeclareMathSymbol{\bracemid}{\mathord}{delimiters}{"D2}
1878 \def\bracefill@#1#2#3#4#5{%
1879
              \medsize{1.4} 
1880 }
1881 \def\downbracefill@{\bracefill@\braceld\bracemd\bracemid}
1882 \def\upbracefill@{\bracefill@\bracelu\bracemu\braceru\bracemid}
1883 \def\downgroupfill@{\bracefill@\braceld{}\bracerd\bracemid}
1884 \def\upgroupfill@{\bracefill@\bracelu{}\braceru\bracemid}
```

```
1885 \def\linesegmentfill@{\arrowfill@\leftfootline\relbar\rightfootline}
1886 \def\leftharpoonfill@{\arrowfill@\leftharpoondown\relbar\relbar}
1887 \def\rightharpoonfill@{\arrowfill@\relbar\rightharpoonup}
1889 \DeclareRobustCommand{\overbrace}[1]{%
     \mathop{\mathpalette{\overarrow@\downbracefill@}{#1}}\limits%
1891 }
1892 \DeclareRobustCommand{\underbrace}[1]{%
    \mathop{\mathpalette{\underarrow@\upbracefill@}{#1}}\limits%
1894 }
1895 \DeclareRobustCommand{\overgroup}{\mathpalette{\overarrow@\downgroupfill@}}
1897 \DeclareRobustCommand{\overlinesegment}{\mathpalette{\overarrow@\linesegmentfill@}}
1898 \DeclareRobustCommand{\overleftharpoon}{\mathpalette{\overarrow@\leftharpoonfill@}}
1899 \DeclareRobustCommand{\overrightharpoon}{\mathpalette{\overarrow@\rightharpoonfill@}}
Radical symbols.
1901 \iffdsy@largedelims
     \DeclareMathRadical{\sqrtsign}{delimiters}{"D4}{delimiters}{"D4}
     \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D4}
1903
     \DeclareMathRadical{\sqrtsign}{delimiters}{"D3}{delimiters}{"D3}
1905
     \DeclareMathSymbol{\surd}{\mathop}{delimiters}{"D3}
1906
In the n-th root, we don't want the n to come too close to the radical (adopted from
package lucimatx).
1908 \def\r@@t#1#2{\setbox\z@\hbox{$\m@th#1\sqrt{#2}$}%
     \dimen@\ht\z@ \advance\dimen@-\dp\z@
     \mkern5mu\raise.6\dimen@\copy\rootbox \mkern-8mu\box\z@}
1910
Mathchars.
1911 \DeclareMathSymbol{+}{\mathbin}{symbols}{"11}
1912 \DeclareMathSymbol{-}{\mathbin}{symbols}{"0E}
1913 \DeclareMathSymbol{*}{\mathbin}{symbols}{"98}
1914 \DeclareMathSymbol{:}{\mathrel}{symbols}{"02}
1915 \DeclareMathSymbol{=}{\mathrel}{relations}{"00}
1916 \DeclareMathSymbol{<}{\mathrel}{relations}{"24}</pre>
1917 \DeclareMathSymbol{>}{\mathrel}{relations}{"25}
1918 \iffdsy@largedelims
     \DeclareMathSymbol{|}{\mathord}{delimiters}{"B6}
1919
     \DeclareMathSymbol{(){\mathopen}{delimiters}{"01}
1920
     \DeclareMathSymbol{)}{\mathclose}{delimiters}{"07}
1921
1922
     \DeclareMathSymbol{[]{\mathopen}{delimiters}{"13}
     \DeclareMathSymbol{]}{\mathclose}{delimiters}{"19}
     \DeclareMathSymbol{/}{\mathord}{delimiters}{"AA}
1924
```

```
1925 \else
1926 \DeclareMathSymbol{|}{\mathord}{delimiters}{"B5}
1927 \DeclareMathSymbol{()}{\mathopen}{delimiters}{"00}
1928 \DeclareMathSymbol{)}{\mathclose}{delimiters}{"06}
1929 \DeclareMathSymbol{[]}{\mathopen}{delimiters}{"12}
1930 \DeclareMathSymbol{]}{\mathclose}{delimiters}{"18}
1931 \DeclareMathSymbol{/}{\mathord}{delimiters}{"A9}
1932 \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.