1 Introduction: logix 2020-01-04 v1.02

The logix package provides the logix Unicode font and, at this time, must be used either with LuaLaTeX or XeLaTeX. There are no available options. The logix font contains supplemental symbols for logic and mathematics, most of which are not found in Unicode. All of the symbols, with the exception of those in the ASCII code space, are in Unicode's Private Use Area. This package does not replace either the text font or the math font.

The logix package includes, in turn, the ifxetex, ifluatex, unicode-math and arydshln packages. The unicode-math package includes the fontspec package. The arydsln package conflicts with several packages. Documented conflicts are the array, longtable, colortab and colortbl packages, which must be loaded before the logix package. Typical use of the logix package in a LaTeX source file is:

```
\usepackage{array}   % Optional, only if otherwise required.
\usepackage{logix}
\setmainfont{STIX Two Text}
\setmathfont{STIX Two Math}
```

although the $\mathcal{AMS}$ STIX2 fonts may be included prior to the logix package, provided that the unicode-math package is loaded first.

The metrics for the logix font are identical to the STIX2 mathematical font and, overall, the symbols in the logix font are designed to be compatible with the STIX2 mathematical font. It may, of course, be used with any other mathematical font. There are more than 3,000 symbols exported from the font (of which around 1,000 are for "stretchy" delimiters). The font itself contains over 4,000 symbols, but those which are not exported are usually variants (e.g. thinner or thicker) or unused experimental symbols. Other symbols could be exported, but have neither suggested usage nor name at this time.

Should you wish to use a non-exported symbol, please contact the author with a quick explanation of your use (so a reasonable name can be assigned) and, as the author's time permits, the requested symbol can be exported (once a name has been assigned, the requestor can then make a quick patch to their logix.sty file for immediate usage). Symbol names in the font file are the same as the LaTeX macro for the symbol with the exception of the ASCII code page since those names potentially conflict with existing LaTeX names. Otherwise, if a symbol does not have a name, then it is not exported.

Should you want an entirely new symbol, that is also possible — but may take more time depending on difficulty and available time. Of course, petitioning the gatekeepers of Unicode to add any of the symbols here which are not in Unicode and have been used in publication is possible, but time-consuming. No assurences are made about the Unicode codepoint (or even font file) for any symbol in the font. Those may change with updates to this package. Use the provided macro names and not the Unicode codepoints.

The international organizations that maintain Unicode and ISO 10646 live in time frames more appropriate to watching trees grow than users' time frames. This font allows a more rapid response, permitting new symbols to be added simply because someone wants to try one out. That is entirely how this font came into existence, the author found that Unicode simply did not have enough arrows for use in logic and what was there was poorly designed for the purpose and inconsistent to boot. Many non-exported symbols are variants on arrows or ordering operators.

Formal logic expressions differ from mathematical expressions in several ways. First, layout is typically linear rather than the more complex two-dimensional layout more often found in mathematical expressions. Next, most logical operators tend to occur between lower case alphabetic symbols, so many operators for mathematics are too large or their center is too high. Finally, delimiters used for mathematical expressions are typically neither tall enough or deep enough for good readability. Thus, many operators which have a good appearance in mathematical expressions are not as appropriate for logical expressions.

Symbols in the logix font which are also in Unicode are typically glyph variants that are designed to better accommodate formal logic expressions. These may occur in the same document as the mathematical variants, and so are not assigned the Unicode codepoints of the mathematical variants.

This package provides 34 stretchy delimiters, each of which has a left and right variant. There is also a stretchy binding bar, commonly used with set notation. Of those 34 delimiters, 4 are only stretchy up to a point (5 times original height). All of the remaining delimiters may be of arbitrary size. At this time, there are no horizontal stretchy operators. However, the function arrow and the logic implication arrows have four available lengths. If \Delim is a stretchy symbol, then \DelimX (where X is A–L or A–P) are explicit larger sizes of \Delim. Additionally, \DelimS is automatically stretchy, so the use of \left, \middle or \right is not necessary. In the case of \middle, a \left and \right are still required in the expression.

A large set of arrows is provided for potential function variants. Arrows are provided to distinguish between 8 types of logic. The distinctions are largely for naming purposes, since there is no real consensus for their use — although some are most frequently associated with classical logic. Various flavors of turnstiles (and their negations) are also provided. There is more of a consensus for their usage although the author has only seen two publications with the very useful sequent (\Seq) symbol. Additional arrows are provided as an alternative to the slash typically used for replacement in quantification and arrows are provided for shift operators.

Many basic logic symbols are provided (including some experimental) along with a small collection of punctuation symbols. Operators for choice, least and greatest fixed points are provided. A number of modal operators are provided, but are by no means comprehensive. As with arrows, modal operators are frequently reused so names are merely suggestive and convenient. There are many other geometric symbols which are suitable for, and (often have been used for), other modal operators. Explicit names for some of those could be provided. Operators are provided to work with "bunches" which are like lists or sets but without the packaging. Ordering operators (and their negations) are provided — however there are additional ordering operators which are not exported.

2 Scripts

Often in logic, it is desirable to distinguish different types using script variants. Unicode is lacking in this area — it does not always provide either all symbols for a script (e.g. missing digits) or all variants for a script (e.g. normal, oblique, bold and bold oblique). Slab serif scripts are not provided by Unicode at all. To alleviate this, 20 supplemental scripts are provided. None of these scripts are intended to replace the scripts used in normal mathematical practice. These scripts contain only digits and letters.

Each script is identified by three letters. The first two letters provide the major classification of the font and the case of the first letter combined with the last letter provides the script variation. If the first letter is lower case, then the script has a normal weight and if the first letter is upper case then the script has a heavier weight (bold). If the last letter is 'u' then the script is upright and if it is 'i' then the script is oblique.

sa	Sans serif	sau, sai, Sau, Sai	bl	Blackboard	blu
sl	Slab serif	slu, sli, Slu, Sli	fr	Fraktur	fru, Fru
sr	Normal serif	sru, sri, Sru, Sri	mn	Monospace	mnu, mni
cl	Calligraphic	cli	gr	Greek	gru, gri

There is a macro defined for each script and each digit or letter, where the name of the macro is the 3-character identifier of the script, as defined above, followed by the name of the digit (zero, one, two, three, four, five, six, seven, eight or nine) or by the name of the letter (a–z or A–Z). Greek scripts do not have digits, and the name of the letter is used instead (e.g. alpha, beta, ...). For example, \SluX is a slab serif, bold upper case '**X**'.

There is a special script variant “Knt” which is the same as the “mni” script, except that it is raised above the normal baseline. It is intended for use with the Knt symbols.

Each of the scripts has a symXxx and a mathXxx macro with the exception of the special Knt script. Some scripts have a synonym for the symXxx macro (and for the individual macros whose prefixes have title case to avoid conflicts) to accommodate expected use in logic. For example, \symsau{p} could also be written as \saup, as \prop{p} or as \Propp. The scripts provided, and their macros, are:

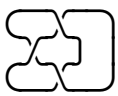
Sans serif font	sau	\symsau	\mathsau	\prop
Sans serif, oblique font	sai	\symsai	\mathsai	\propi
Sans serif, bold font	Sau	\symSau	\mathSau	\meta
Sans serif, bold, oblique font	Sai	\symSai	\mathSai	\metai
Slab serif font	slu	\symslu	\mathslu	\bnch
Slab serif, oblique font	sli	\symsli	\mathsli	\bnchi
Slab serif, bold font	Slu	\symSlu	\mathSlu	\bnchb
Slab serif, bold, oblique font	Sli	\symSli	\mathSli	\bnchbi
Normal serif font	sru	\symsru	\mathsru	\vrbl
Normal serif, italic font	sri	\symsri	\mathsri	\vrbli
Normal serif, bold font	Sru	\symSru	\mathSru	\vrblb
Normal serif, bold, italic font	Sri	\symSri	\mathSri	\vrblbi
Calligraphic font	cli	\symcli	\mathcli	\vrblc
Blackboard font	blu	\symblu	\mathblu	\vrbld
Fraktur font	fru	\symfru	\mathfru	\vrblf
Fraktur bold font	Fru	\symFru	\mathFru	\vrblF
Monospace font	mnu	\symmnu	\mathmnu	\mono
Monospace italic, serif font	mni	\symmni	\mathmni	
Greek font	gru	\symgru	\mathgru	
Greek, italic font	gri	\symgri	\mathgri	

3 Knot Symbols

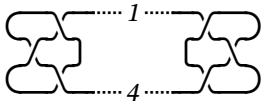
An extensive set of drawing symbols is provided for drawing knots (as found in Knot Theory). The \KnotGrid environment is provided for this purpose. KnotGrid provides a grid (based on tabular, but the use of ampersand (&) separators is not required between grid cells). Each knot symbol has an exact width and height — most are 1em×1em, but a few are half or quarter height or width. Every symbol (or symbols) in a grid cell must have the same height as all other knot symbols in the same row and same width as all other knot symbols in the same column. The KnotGrid environment has no options and is used as follows (this example has three rows and five columns):

```
\begin{KnotGrid}
  \KntLFC  \KntTSN     \KntHXSOSU  \KntTSFN        \KntTRSC \\
  \KntNF   \KntHXSUSO  \KntNN      \KntRQC \KntNQ  \KntRSN  \\
  \KntLFC  \KntBSN     \KntHXSOSU  \KntBSFN        \KntRBSC \\
  \end{KnotGrid}
```

which produces the following knot diagram for the Trefoil knot. Note that the second row, fourth column contains two symbols whose combined width satisfies the width constraints.



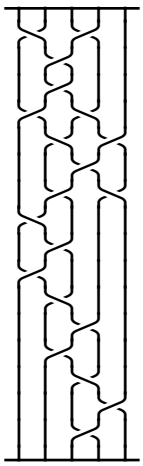
This example is the Square Knot using the Knt script for line labeling.



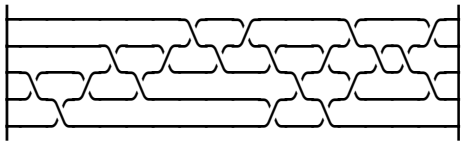
This example is a braid (typeset vertically) for a double of the left-handed Trefoil. The left and right columns are half width and the top and bottom rows are half height to achieve a slightly better appearance.

```
\begin{KnotGrid}
  \KntBSFNF  \KntBSNF    \KntBSNF    \KntBSNF    \KntBSNF    \KntBSFNF \\
  \KntRSFNF  \KntRSFN    \KntRSFN    \KntRSFN    \KntRSFN    \KntFF    \\
  \KntNF     \KntVXSUSO  \KntNN      \KntVXSOSU  \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSOSU  \KntRSN     \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSOSU  \KntRSN     \KntRSN     \KntNF    \\
  \KntNF     \KntVXSOSU  \KntNN      \KntVXSUSO  \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSUSO  \KntNN      \KntVXSOSU  \KntNF    \\
  \KntRSNF   \KntRSN     \KntNN      \KntVXSOSU  \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSOSU  \KntNN      \KntVXSUSO  \KntNF    \\
  \KntNF     \KntVXSUSO  \KntRSN     \KntRSN     \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSOSU  \KntRSN     \KntRSN     \KntNF    \\
  \KntNF     \KntVXSOSU  \KntRSN     \KntRSN     \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSUSO  \KntRSN     \KntRSN     \KntNF    \\
  \KntRSNF   \KntRSN     \KntNN      \KntVXSOSU  \KntRSN     \KntNF    \\
  \KntRSNF   \KntNN      \KntVXSOSU  \KntRSN     \KntRSN     \KntNF    \\
  \KntRSNF   \KntRSN     \KntNN      \KntVXSUSO  \KntRSN     \KntNF    \\
  \KntRSNF   \KntRSN     \KntRSN     \KntNN      \KntVXSOSU  \KntNF    \\
  \KntRSNF   \KntRSN     \KntNN      \KntVXSOSU  \KntRSN     \KntNF    \\
  \KntRSFNF  \KntRSFN    \KntRSFN    \KntRSFN    \KntRSFN    \KntFF    \\
  \KntTSFNF  \KntTSNF    \KntTSNF    \KntTSNF    \KntTSNF    \KntTSFNF \\
  \end{KnotGrid}
```

Which is typeset below.



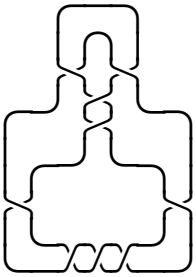
A horizontal version is shown below.



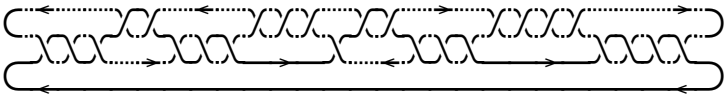
This example is the $9_6(L)$ knot.

```
\begin{KnotGrid}
 \KntNN     \KntNN   \KntLTSC   \KntTSN    \KntTRSC   \KntNN   \KntNN    \\
 \KntNN     \KntRSN  \KntNN     \KntTCS    \KntNN     \KntLSN  \KntNN    \\
 \KntNN     \KntNN   \KntVXSUSO \KntNN     \KntVXSUSO \KntNN   \KntNN    \\
 \KntNN     \KntRBSC \KntNN     \KntVXSOSU \KntNN     \KntBLSC \KntNN    \\
 \KntLTSC   \KntNN   \KntNN     \KntVXSOSU \KntNN     \KntNN   \KntTRSC  \\
 \KntLSN    \KntNN   \KntRBSC   \KntNN     \KntBLSC   \KntNN   \KntRSN   \\
 \KntLSN    \KntLTSC \KntNN     \KntNN     \KntNN     \KntTRSC \KntRSN   \\
 \KntVXSUSO \KntNN   \KntNN     \KntNN     \KntNN     \KntNN   \KntVXSUSO\\
 \KntLSN    \KntBLSC \KntNN     \KntNN     \KntNN     \KntRBSC \KntRSN   \\
 \KntBLSC   \KntBSN  \KntHXSUSO \KntHXSUSO \KntHXSUSO \KntBSN  \KntRBSC  \\
 \end{KnotGrid}
```

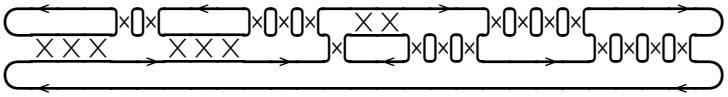
Which is typeset as below.



This final example, is the rational link corresponding to the rational number 4117 / 17426.



With its Seifert circle decomposition.



Where a grid cell would otherwise be empty or where padding is required to satisfy the size requirements for a cell, 25 KntXY (X is height, Y width, both are one of: N, E, F, Q, Z) space or strut symbols are provided which are exactly sized both horizontally and vertically to assist. The knot symbols are typeset in math mode so that spaces are ignored. This allows the grid structure to be explicit, making readability and maintenance easier. In the first example above (the Trefoil knot), the fourth grid column is 0.5em wide, but in the second row an 0.25em width symbol is used, which must then be padded with an 0.25em space.

In order to keep names shortish, the following abbreviations are used for Knt symbols

A – Arrow	N – liNe / Normal
B – Bottom	O – Over
C – Cap / Corner	Q – Fourth / Quarter
D – Dashed / Down	R – Right
E – Three quarter	S – Solid
F – halF	T – Top
H – Horizontal	U – Under / Up
J – Join	V – Vertical
L – Left	X – Cross
M – sMoothed	Z – Zero

4 Logic Proofs

LaTeX has more than adequate support for traditional mathematical proofs. Conversely, in logic, object proofs are written either as a linear sequence (usually Hilbert systems) or as a tree (usually Natural Deduction or Gentzen systems), but linear proofs can be used with most systems of logic. Tree style proofs have support in several other packages. However, linear proofs do not. This package supplies three environments to support linear proofs to alleviate this deficiency.

Logic definitions typically have a name with an optional number (e.g. "Ax. 3" or "Conjunction"), an expression and, optionally, a brief comment. Sometimes a definition stands alone and other times several definitions are associated in a group. The LogixDefn environment provides structured formatting for logic definitions, either singly or as a group. The LogixDefn environment does not have any required parameters and has an optional parameter. That parameter must be a horizontal length. If present, all of the definition expressions must fit within that length and its presence indicates that a comment may optionally follow each expression. The length should be sufficient to allow adequate space between the longest expression and the start of the comments to avoid the expressions overlapping the comments.

The LogixDefn environment defines the nested Line macro, which has three parameters if the optional LogixDefn parameter is not present, and otherwise four. The fourth parameter may not be omitted if the length parameter is present and contains a possibly empty comment to be placed at the end of the line following the expression. The basic three parameters for the Line macro are the definition's name, optional number (the empty argument must be present if there is no number) and the definition expression, which is typeset in math mode. Two examples of its use follow. Expressions in most examples are meaningless and only serve to show the presence of an expression.

```
\begin{LogixDefn}
   \Line{Neg} {1}{\symsau{p} \Equv \symsau{q}}
   \Line{Conj}{} {\symsau{p} \Equv \symsau{q}}
   \end{LogixDefn}

\begin{LogixDefn}[5em]
   \Line{Df}{1}{\symsau{p} \Equv \symsau{q}}{Some comment}
   \Line{Df}{2}{\symsau{p} \Equv \symsau{q}}{Yet another comment}
   \end{LogixDefn}
```

which is typeset as shown below.

Neg 1. $p \longleftrightarrow q$
Conj. $p \longleftrightarrow q$

Df	1.	$p \longleftrightarrow q$	Some comment
Df	2.	$p \longleftrightarrow q$	Yet another comment

Environments defined in this package do not affect the indentation level. The LogixDefn environment would also be used to state axioms or theorems without associated proofs. In this document, the addmargin environment provided by the scrextend package is used to provide indentation.

A linear logical theorem typically has a name (including any number), a possibly empty set of postulates and the theorem's expression. The LogixProof environment provides structured formatting for linear logic theorems. The LogixProof environment has four arguments with the first one optional. The optional argument is a horizontal length, and provides a width for the expression in each proof line which is followed by a comment when the length argument is present. The other three arguments are the name (and any associated number) of the theorem, a possibly empty set of postulates which are assumed only for the purpose of the proof (e.g. assuming the Axiom of Choice (AC) for a specific theorem when working in ZF instead of ZFC).

Thus, postulates are distinguished from axioms which are assumed to hold for all theorems in a system whereas a postulate holds only for a specific proof. The third parameter is the statement (the theorem's expression) of the proof.

The LogixProof environment defines the Dash and Line nested macros. These are identical except that the Dash macro is followed by a dashed line separator and the Line macro is followed by a solid line separator. Each line of the proof is represented by an occurrence of one of these macros. The last line of the proof is normally represented by a Line macro. Each of these macros has four parameters (five when the optional length argument of the LogixProof environment is present). There are two typical styles for each line of a linear logical proof. The first is commonly used in short examples and in introductory texts. It starts with a line number, the expression for the proof line and an optional comment which justifies the proof step in some manner. The second style starts with a line number, then the justifying theorem or axiom name, then a list of previous line numbers of the proof that justify the proof step, followed by the expression for the proof line and, finally, an optional comment.

The Dash and Line macros accommodate both proof styles. The first parameter for each of these macros is the line number. It is typeset in math mode so that subscripts may be used (sometimes useful in meta proofs). The second parameter is the name of the justifying axiom or previous theorem (including any number). The third parameter is the list of previous lines of the proof used to justify the proof, and the fourth parameter is the expression for the proof line. If the optional length is present for the LogixProof environment, then a parameter for the comment is present as the fifth parameter. A list is used for the previous justifying lines since the same line can be referenced more than once and the order is potentially significant. Both the second and third parameters may be empty, allowing the use of the optional comment for justification. The following examples illustrate the use of the LogixProof environment.

```
\begin{LogixProof} {Th 46} {AC} {\prop{p} \Nd \prop{q}}
   \Dash {1} {Th 41} {} {\prop{p} \Impl \prop{q}}
   \Line {2} {Cn 2}  {} {\prop{p} \Impl \prop{q}}
   \end{LogixProof}


\begin{LogixProof}[5em] {Th 46} {} {\prop{p} \Nd \prop{q}}
   \Line {1} {Th 41} {}    {\prop{p} \Impl \prop{q}} {First comment}
   \Line {2} {Cn 2}  {}    {\prop{p} \Impl \prop{q}} {}
   \Line {3} {Th 38} {2,1} {\prop{p} \Impl \prop{q}} {Last comment}
   \end{LogixProof}

\begin{LogixProof}[5em] {Th 46} {} {\prop{p} \Nd \prop{q}}
   \Dash {1} {} {}  {\prop{p} \Impl \prop{q}} {Disjunction}
   \Line {2} {} {}  {\prop{p} \Impl \prop{q}} {Modus Ponens, 1}
   \end{LogixProof}
```

which is typeset as shown below.

Th 46. [AC] $p \wedge q$

1. Th 41.	$p \longrightarrow q$
2. Cn 2.	$p \longrightarrow q$

Th 46. $p \wedge q$

1. Th 41.	$p \longrightarrow q$	First comment
2. Cn 2.	$p \longrightarrow q$	
3. Th 38. [2,1]	$p \longrightarrow q$	Last comment

Th 46. $p \wedge q$

1.	$p \longrightarrow q$	Disjunction
2.	$p \longrightarrow q$	Modus Ponens, 1

A more realistic example of using the LogixProof environment is shown below (note the use of implication arrow lengths to indicate depth of expression nesting — this is not automatic).

Th 43. $(p\rightarrow q)\longrightarrow(p\longrightarrow(r\rightarrow q))$

1. Th 14.	$(p\rightarrow q)\rightarrow(p\rightarrow q)$
2. Im 3.	$q\longrightarrow(r\rightarrow q)$
3. Im 3. [2]	$(p\rightarrow q)\longrightarrow(q\longrightarrow(r\rightarrow q))$
4. Cn 2. [1,3]	$(p\rightarrow q)\longrightarrow(p\rightarrow q)\wedge(q\longrightarrow(r\rightarrow q))$
5. Im 2.	$(p\rightarrow q)\wedge(q\longrightarrow(r\rightarrow q))\longrightarrow(p\longrightarrow(r\rightarrow q))$
6. Im 2. [4,5]	$(p\rightarrow q)\longrightarrow(p\longrightarrow(r\rightarrow q))$

Additionally, the LogixSeqnt environment is provided. It is identical to the LogixProof environment except that there are two expressions associated with each proof line. The first may be empty and contains the premises for a sequent and the second contains its conclusion. The proof expressions are aligned on the sequent operator, which is present in every line. The following examples illustrate the use of the LogixSeqnt environment.

```
\begin{LogixSeqnt} {Th 46} {AC} {\prop{p} \Seq \prop{q}}
   \Dash {1} {Th 41} {}    {\prop{p}} {\prop{q}}
   \Line {2} {Cn 2}  {}    {\prop{p}} {\prop{q}}
   \end{LogixSeqnt}

\begin{LogixSeqnt}[3em] {Th 46} {} {\prop{p} \Seq \prop{r}}
   \Line {1} {Th 41} {}    {\prop{p}} {\prop{r}} {First comment}
   \Line {2} {Cn 2}  {}    {\prop{p}} {\prop{r}} {}
   \Line {3} {Th 38} {2,1} {        } {\prop{r}} {Last comment}
   \end{LogixSeqnt}

\begin{LogixSeqnt}[3em] {Th 46} {} {\prop{p} \Seq \prop{r}}
   \Dash {1} {} {}  {\prop{p}\Comma\prop{q}} {\prop{r}} {Disjunction}
   \Line {2} {} {}  {\prop{p}\Comma\prop{q}} {\prop{r}} {Weakening, 1}
   \end{LogixSeqnt}
```

which is typeset as shown below.

Th 46. [AC] $p\succ q$

1. Th 41.	$p\succ q$
2. Cn 2.	$p\succ q$

Th 46. $p\succ r$

1. Th 41.	$p\succ r$	First comment
2. Cn 2.	$p\succ r$	
3. Th 38. [2,1]	$\succ r$	Last comment

Th 46. $p\succ r$

1.	$p,q\succ r$	Disjunction
2.	$p,q\succ r$	Weakening, 1

A more realistic example of using the LogixSeqnt environment is shown below.

Th 11. $p\succ q, r\succ s\vdash p\vee r\succ q\vee s$

1. Th 2. [Ds 3]	$q\succ q\vee s$
2. Ln 1. [As 1]	$p\succ q\vee s$
3. Th 2. [Ds 4]	$s\succ q\vee s$
4. Ln 3. [As 2]	$r\succ q\vee s$
5. Ds 1. [2,4]	$p\vee r\succ q\vee s$

5 Symbols

The remainder of this document is the list of symbols. Each symbol has a name (not necessarily definitive, but it corresponds to the name of the macro for the symbol), the name of the macro for the symbol and a scaled (by a factor of 1.5) example of the symbol. All symbols can be used in both text and in math mode.

Following the individual symbols, the names for stretchy delimiters (and the stretchy binding bar) are shown with two examples. The first example is small enough that a predefined size variant will be used, and the second example is large enough that no predefined size variant will be used. Delimiters which are too short for the second example are limited in size variations to 5× the normal delimiter size.

That is followed by script examples. First Greek and Greek italic, then the sans-serif scripts, the slab-serif scripts, the normal serif scripts and lastly the miscellaneous scripts (calligraphic, Fraktur, etc.).

The logix.sty package file is heavily commented, and is useful as a quick reference.

Please feel free to contact the author if you have questions or issues. The author will answer or attempt to resolve any issue as quickly as possible — constrained of course, by the author's available time and other constraints. The author can be contacted by email at

ctan@metachaos.net

Please allow a few days before emailing a second time. There is no spam filter on this email account. Under normal circumstances, this email account is checked at least daily.

This distribution also contains logix.vfc, which is the master font file used to derive the actual font files. It is not needed for LaTeXusage, but is provided should I become unable to maintain the package, and it is picked up by another maintainer. This is a FontLab source file.

In addition, and also not required for LaTeX usage, the various web font files (.eot, .ttf, .woff and .woff2) are included in the distribution so that users who wish to use the font in a web page do not need to convert font files.

Open Vertical Bar	\OpnBar	
Open Group Brace	\OpnGrp	
Open Parenthesis	\OpnParn	
Open Curly Brace	\OpnBrac	
Open Curly Broken Brace	\OpnBrknBrac	
Open Curly Circle Brace	\OpnCircBrac	
Open Arrow Brace	\OpnArrwBrac	
Open Square Bracket	\OpnBrkt	
Open Square Broken Bracket	\OpnBrknBrkt	
Open Square Circle Bracket	\OpnCircBrkt	
Open Square Curly Bracket	\OpnCrlyBrkt	
Open Tortoise Shell	\OpnTortoise	
Open Angle Bracket	\OpnAngl	
Open Curved Angle Bracket	\OpnCurvAngl	
Open Ceiling	\OpnCeil	
Open Floor	\OpnFloor	
Open Turnstile	\OpnTurn	
Open Double Vertical Bar	\OpnDblBar	
Open Double Group Brace	\OpnDblGrp	
Open Double Parenthesis	\OpnDblParn	
Open Double Curly Brace	\OpnDblBrac	
Open Double Angle Bracket	\OpnDblAngl	
Open Square Parenthesis	\OpnSqrParn	
Open Parenthesis with Bar	\OpnParnBar	
Open Brace with Bar	\OpnBracBar	
Open Broken Brace with Bar	\OpnBrknBracBar	
Open Circle Brace with Bar	\OpnCircBracBar	
Open Bracket with Bar	\OpnBrktBar	
Open Broken Bracket with Bar	\OpnBrknBrktBar	
Open Circle Bracket with Bar	\OpnCircBrktBar	
Open Curly Bracket with Bar	\OpnCrlyBrktBar	
Open Tortoise Shell with Bar	\OpnTortoiseBar	
Open Angle Bracket with Bar	\OpnAnglBar	
Open Context Quote	\OpnCntx	

Close Vertical Bar	\ClsBar	⎪
Close Group Brace	\ClsGrp	⎭
Close Parenthesis	\ClsParn	)
Close Curly Brace	\ClsBrac	}
Close Curly Broken Brace	\ClsBrknBrac	⎫
Close Curly Circle Brace	\ClsCircBrac	⎬
Close Arrow Brace	\ClsArrwBrac	⎭
Close Square Bracket	\ClsBrkt	]
Close Square Broken Bracket	\ClsBrknBrkt	⎤
Close Square Circle Bracket	\ClsCircBrkt	⎥
Close Square Curly Bracket	\ClsCrlyBrkt	]
Close Tortoise Shell	\ClsTortoise	)
Close Angle Bracket	\ClsAngl	⟩
Close Curved Angle Bracket	\ClsCurvAngl	)
Close Ceiling	\ClsCeil	⌉
Close Floor	\ClsFloor	⌋
Close Turnstile	\ClsTurn	⊣
Close Double Vertical Bar	\ClsDblBar	‖
Close Double Group Brace	\ClsDblGrp	⦈
Close Double Parenthesis	\ClsDblParn	⦆
Close Double Curly Brace	\ClsDblBrac	⦄
Close Double Angle Bracket	\ClsDblAngl	⟫
Close Square Parenthesis	\ClsSqrParn	⦆
Close Parenthesis with Bar	\ClsParnBar	⦐
Close Brace with Bar	\ClsBracBar	⦄
Close Broken Brace with Bar	\ClsBrknBracBar	⦄
Close Circle Brace with Bar	\ClsCircBracBar	⦄
Close Bracket with Bar	\ClsBrktBar	⦆
Close Broken Bracket with Bar	\ClsBrknBrktBar	⦆
Close Circle Bracket with Bar	\ClsCircBrktBar	⦆
Close Curly Bracket with Bar	\ClsCrlyBrktBar	⦄
Close Tortoise Shell with Bar	\ClsTortoiseBar	⦐
Close Angle Bracket with Bar	\ClsAnglBar	⦒
Close Context Quote	\ClsCntx	˧

Continuous, Partial, Into Multi-Map	\MapParInMul	$\rightarrowtail^{+}$
Continuous, Partial, Into, Singleton Map	\MapParInSng	$\rightarrowtail$
Continuous, Partial, Into, One-To-One Map	\MapParInOne	$\rightarrowtail^{\bullet}$
Continuous, Partial, Onto Multi-Map	\MapParOnMul	$\rightarrowtail^{+}\!\!\triangleright$
Continuous, Partial, Onto, Singleton Map	\MapParOnSng	$\rightarrowtail\!\!\triangleright$
Continuous, Partial, Onto, One-To-One Map	\MapParOnOne	$\rightarrowtail^{\bullet}\!\!\triangleright$
Continuous, Partial, Into, Grounded Multi-Map	\MapParInGndMul	$\rightarrowtail^{+}_{\vee}$
Continuous, Partial, Into, Grounded, Singleton Map	\MapParInGndSng	$\rightarrowtail_{\vee}$
Continuous, Partial, Into, Grounded, One-To-One Map	\MapParInGndOne	$\rightarrowtail^{\bullet}_{\vee}$
Continuous, Partial, Onto, Grounded Multi-Map	\MapParOnGndMul	$\rightarrowtail^{+}_{\vee}\!\!\triangleright$
Continuous, Partial, Onto, Grounded, Singleton Map	\MapParOnGndSng	$\rightarrowtail_{\vee}\!\!\triangleright$
Continuous, Partial, Onto, Grounded, One-To-One Map	\MapParOnGndOne	$\rightarrowtail^{\bullet}_{\vee}\!\!\triangleright$

Continuous, Total, Into Multi-Map	\MapTotInMul	$\rightarrowtail^{+}$
Continuous, Total, Into, Singleton Map	\MapTotInSng	$\rightarrowtail$
Continuous, Total, Into, One-To-One Map	\MapTotInOne	$\rightarrowtail^{\bullet}$
Continuous, Total, Onto Multi-Map	\MapTotOnMul	$\rightarrowtail^{+}\!\!\triangleright$
Continuous, Total, Onto, Singleton Map	\MapTotOnSng	$\rightarrowtail\!\!\triangleright$
Continuous, Total, Onto, One-To-One Map	\MapTotOnOne	$\rightarrowtail^{\bullet}\!\!\triangleright$
Continuous, Total, Into, Grounded Multi-Map	\MapTotInGndMul	$\rightarrowtail^{+}_{\vee}$
Continuous, Total, Into, Grounded, Singleton Map	\MapTotInGndSng	$\rightarrowtail_{\vee}$
Continuous, Total, Into, Grounded, One-To-One Map	\MapTotInGndOne	$\rightarrowtail^{\bullet}_{\vee}$
Continuous, Total, Onto, Grounded Multi-Map	\MapTotOnGndMul	$\rightarrowtail^{+}_{\vee}\!\!\triangleright$
Continuous, Total, Onto, Grounded, Singleton Map	\MapTotOnGndSng	$\rightarrowtail_{\vee}\!\!\triangleright$
Continuous, Total, Onto, Grounded, One-To-One Map	\MapTotOnGndOne	$\rightarrowtail^{\bullet}_{\vee}\!\!\triangleright$

Continuous, Partial, Into Multi-Function	\FunParInMul	$\mapsto^{+}$
Continuous, Partial, Into, Singleton Function	\FunParInSng	$\mapsto$
Continuous, Partial, Into, One-To-One Function	\FunParInOne	$\mapsto^{\bullet}$
Continuous, Partial, Onto Multi-Function	\FunParOnMul	$\mapsto^{+}$
Continuous, Partial, Onto, Singleton Function	\FunParOnSng	$\mapsto$
Continuous, Partial, Onto, One-To-One Function	\FunParOnOne	$\mapsto^{\bullet}$
Continuous, Partial, Into, Grounded Multi-Function	\FunParInGndMul	$\mapsto^{+}_{\vee}$
Continuous, Partial, Into, Grounded, Singleton Function	\FunParInGndSng	$\mapsto_{\vee}$
Continuous, Partial, Into, Grounded, One-To-One Function	\FunParInGndOne	$\mapsto^{\bullet}_{\vee}$
Continuous, Partial, Onto, Grounded Multi-Function	\FunParOnGndMul	$\mapsto^{+}_{\vee}$
Continuous, Partial, Onto, Grounded, Singleton Function	\FunParOnGndSng	$\mapsto_{\vee}$
Continuous, Partial, Onto, Grounded, One-To-One Function	\FunParOnGndOne	$\mapsto^{\bullet}_{\vee}$

Continuous, Total, Into Multi-Function	\FunTotInMul	$\mapsto^{+}$
Continuous, Total, Into, Singleton Function	\FunTotInSng	$\mapsto$
Continuous, Total, Into, One-To-One Function	\FunTotInOne	$\mapsto^{\bullet}$
Continuous, Total, Onto Multi-Function	\FunTotOnMul	$\mapsto^{+}$
Continuous, Total, Onto, Singleton Function	\FunTotOnSng	$\mapsto$
Continuous, Total, Onto, One-To-One Function	\FunTotOnOne	$\mapsto^{\bullet}$
Continuous, Total, Into, Grounded Multi-Function	\FunTotInGndMul	$\mapsto^{+}_{\vee}$
Continuous, Total, Into, Grounded, Singleton Function	\FunTotInGndSng	$\mapsto_{\vee}$
Continuous, Total, Into, Grounded, One-To-One Function	\FunTotInGndOne	$\mapsto^{\bullet}_{\vee}$
Continuous, Total, Onto, Grounded Multi-Function	\FunTotOnGndMul	$\mapsto^{+}_{\vee}$
Continuous, Total, Onto, Grounded, Singleton Function	\FunTotOnGndSng	$\mapsto_{\vee}$
Continuous, Total, Onto, Grounded, One-To-One Function	\FunTotOnGndOne	$\mapsto^{\bullet}_{\vee}$

Short Function	\SFunc	$\rightarrow$
Function	\Func	$\longrightarrow$
Long Function	\LFunc	$\longrightarrow$
Extra LongFunction	\XFunc	$\longrightarrow$

Map Composition	\MapComp	$\square$
Function Composition	\FncComp	$\circ$
Function Converse	\FncCnvrs	$\otimes$

Classical Implication	\ClsImpl	$\supset$
Not Classical Implication	\NotClsImpl	$\not\supset$
Classical Equivalence	\ClsEquv	$\equiv$
Not Classical Equivalence	\NotClsEquv	$\not\equiv$

Weak Material Implication	\SWkMtImpl	$\Rrightarrow\!\!\!\!\!\supset$
Weak Material Implication	\WkMtImpl	$\Rrightarrow\!\!\!\!\!\supset$
Weak Material Implication	\LWkMtImpl	$\Rrightarrow\!\!\!\!\!\supset$
Weak Material Implication	\XWkMtImpl	$\Rrightarrow\!\!\!\!\!\supset$

Material Implication	\SMtImpl	$\Rightarrow$
Material Implication	\MtImpl	$\Rightarrow$
Material Implication	\LMtImpl	$\Rightarrow$
Material Implication	\XMtImpl	$\Rightarrow$

Intuitionistic Implication	\SInImpl	$\rightarrow\!\!\!\!\!\supset$
Intuitionistic Implication	\InImpl	$\rightarrow\!\!\!\!\!\supset$
Intuitionistic Implication	\LInImpl	$\rightarrow\!\!\!\!\!\supset$
Intuitionistic Implication	\XInImpl	$\rightarrow\!\!\!\!\!\supset$

Weak Implication	\SWkImpl	$\rightarrow\!\!\!\!\supset$
Weak Implication	\WkImpl	$\rightarrow\!\!\!\!\supset$
Weak Implication	\LWkImpl	$\rightarrow\!\!\!\!\supset$
Weak Implication	\XWkImpl	$\rightarrow\!\!\!\!\supset$

Implication	\SImpl	$\rightarrow$
Implication	\Impl	$\rightarrow$
Implication	\LImpl	$\rightarrow$
Implication	\XImpl	$\rightarrow$

Weak Entailment	\SWkEntail	$\rightarrow\!\!\!\!\vdash$
Weak Entailment	\WkEntail	$\rightarrow\!\!\!\!\vdash$
Weak Entailment	\LWkEntail	$\rightarrow\!\!\!\!\vdash$
Weak Entailment	\XWkEntail	$\rightarrow\!\!\!\!\vdash$

Entailment	\SEntail	$\rightarrow\!\!\!\!\vdash$
Entailment	\Entail	$\rightarrow\!\!\!\!\vdash$
Entailment	\LEntail	$\rightarrow\!\!\!\!\vdash$
Entailment	\XEntail	$\rightarrow\!\!\!\!\vdash$

Not Weak Material Implication	\NotSWkMtImpl	$\nRightarrow$
Not Weak Material Implication	\NotWkMtImpl	$\nRightarrow$
Not Weak Material Implication	\NotLWkMtImpl	$\nRightarrow$
Not Weak Material Implication	\NotXWkMtImpl	$\nRightarrow$

Not Material Implication	\NotSMtImpl	$\nRightarrow$
Not Material Implication	\NotMtImpl	$\nRightarrow$
Not Material Implication	\NotLMtImpl	$\nRightarrow$
Not Material Implication	\NotXMtImpl	$\nRightarrow$

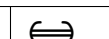
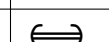
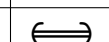
Not Intuitionistic Implication	\NotSInImpl	$\not\Lsh$
Not Intuitionistic Implication	\NotInImpl	$\not\Lsh$
Not Intuitionistic Implication	\NotLInImpl	$\not\Lsh$
Not Intuitionistic Implication	\NotXInImpl	$\not\Lsh$

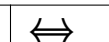
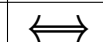
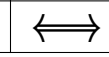
Not Weak Implication	\NotSWkImpl	$\not\Rightarrow$
Not Weak Implication	\NotWkImpl	$\not\Rightarrow$
Not Weak Implication	\NotLWkImpl	$\not\Rightarrow$
Not Weak Implication	\NotXWkImpl	$\not\Rightarrow$

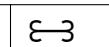
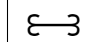
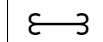
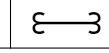
Not Implication	\NotSImpl	$\not\Rightarrow$
Not Implication	\NotImpl	$\not\Rightarrow$
Not Implication	\NotLImpl	$\not\Rightarrow$
Not Implication	\NotXImpl	$\not\Rightarrow$

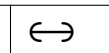
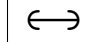
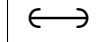
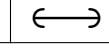
Not Weak Entailment	\NotSWkEntail	$\not\Rrightarrow$
Not Weak Entailment	\NotWkEntail	$\not\Rrightarrow$
Not Weak Entailment	\NotLWkEntail	$\not\Rrightarrow$
Not Weak Entailment	\NotXWkEntail	$\not\Rrightarrow$

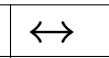
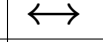
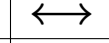
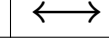
Not Entailment	\NotSEntail	$\not\Rightarrow$
Not Entailment	\NotEntail	$\not\Rightarrow$
Not Entailment	\NotLEntail	$\not\Rightarrow$
Not Entailment	\NotXEntail	$\not\Rightarrow$

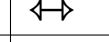
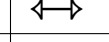
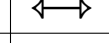
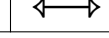
Weak Material Equivalence	\SWkMtEquv	
Weak Material Equivalence	\WkMtEquv	
Weak Material Equivalence	\LWkMtEquv	
Weak Material Equivalence	\XWkMtEquv	

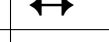
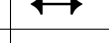
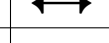
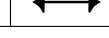
Material Equivalence	\SMtEquv	
Material Equivalence	\MtEquv	
Material Equivalence	\LMtEquv	
Material Equivalence	\XMtEquv	

Intuitionistic Equivalence	\SInEquv	
Intuitionistic Equivalence	\InEquv	
Intuitionistic Equivalence	\LInEquv	
Intuitionistic Equivalence	\XInEquv	

Weak Implication Equivalence	\SWkEquv	
Weak Implication Equivalence	\WkEquv	
Weak Implication Equivalence	\LWkEquv	
Weak Implication Equivalence	\XWkEquv	

Implication Equivalence	\SEquv	
Implication Equivalence	\Equv	
Implication Equivalence	\LEquv	
Implication Equivalence	\XEquv	

Weak Entailment Equivalence	\SWkEntailEquv	
Weak Entailment Equivalence	\WkEntailEquv	
Weak Entailment Equivalence	\LWkEntailEquv	
Weak Entailment Equivalence	\XWkEntailEquv	

Entailment Equivalence	\SEntailEquv	
Entailment Equivalence	\EntailEquv	
Entailment Equivalence	\LEntailEquv	
Entailment Equivalence	\XEntailEquv	

Not Weak Material Equivalence	\NotSWkMtEquv	
Not Weak Material Equivalence	\NotWkMtEquv	
Not Weak Material Equivalence	\NotLWkMtEquv	
Not Weak Material Equivalence	\NotXWkMtEquv	

Not Material Equivalence	\NotSMtEquv	
Not Material Equivalence	\NotMtEquv	
Not Material Equivalence	\NotLMtEquv	
Not Material Equivalence	\NotXMtEquv	

Not Intuitionistic Equivalence	\NotSInEquv	
Not Intuitionistic Equivalence	\NotInEquv	
Not Intuitionistic Equivalence	\NotLInEquv	
Not Intuitionistic Equivalence	\NotXInEquv	

Not Weak Implication Equivalence	\NotSWkEquv	
Not Weak Implication Equivalence	\NotWkEquv	
Not Weak Implication Equivalence	\NotLWkEquv	
Not Weak Implication Equivalence	\NotXWkEquv	

Not Implication Equivalence	\NotSEquv	
Not Implication Equivalence	\NotEquv	
Not Implication Equivalence	\NotLEquv	
Not Implication Equivalence	\NotXEquv	

Not Weak Entailment Equivalence	\NotSWkEntailEquv	
Not Weak Entailment Equivalence	\NotWkEntailEquv	
Not Weak Entailment Equivalence	\NotLWkEntailEquv	
Not Weak Entailment Equivalence	\NotXWkEntailEquv	

Not Entailment Equivalence	\NotSEntailEquv	
Not Entailment Equivalence	\NotEntailEquv	
Not Entailment Equivalence	\NotLEntailEquv	
Not Entailment Equivalence	\NotXEntailEquv	

Sequent	\Seq	$\succ$
Assertion (Rule)	\Rule	$\vdash$
Model	\Model	$\models$
Turnstile	\Turn	$\Vdash$
Consequence Relation	\Conseq	$\Models$

Sequent Denied	\NotSeq	$\not\succ$
Assertion (Rule) Denied	\NotRule	$\nvdash$
Model Denied	\NotModel	$\nvDash$
Turnstile Denied	\NotTurn	$\nVdash$
Consequence Relation Denied	\NotConseq	$\nVDash$

Bitwise AND operator / Logical Conjunction	\Nd	$\wedge$
Bitwise OR operator / Logical Disjunction	\Or	$\vee$
Bitwise NOT operator / Logical Negation	\Nt	$\neg$
Classical Logical Negation	\Ng	$\sim$
Bitwise NAND operator	\Nand	$\overline{\wedge}$
Bitwise NOR operator	\Nor	$\overline{\vee}$
Bitwise XOR operator	\Xor	$\underline{\vee}$

Defines	\Defn	$:=$
Q.E.D.	\Qed	$\blacksquare$

Logical Coherence	\LcgCohrnc	$\barwedge$
Bunch Coherence	\BncCohrnc	$\owedge$

True	\True	$\top$
False	\False	$\bot$

Quantified Conjunction	\QuantCon	$\bigwedge$
Quantified Disjuntion	\QuantDis	$\bigvee$
Universal Individual Quantifier	\ForAll	$\forall$
Existential Individual Quantifier	\Exists	$\exists$
Unique Existential Individual Quantifier	\Unique	$\exists!$
Universal Bunch Quantifier	\BnchForAll	$\mathbin{\forall}$
Existential Bunch Quantifier	\BnchExists	$\mathbin{\exists}$
Unique Existential Bunch Quantifier	\BnchUnique	$\mathbin{\exists!}$
Map Abstraction	\BndMap	λ

Dot	\Dt	.
Comma	\Comma	,
Semicolon	\Semicln	;
Colon	\Cln	:
Thus	\Thus	∴
Since	\Since	∵
Dots (ellipsis)	\Dts	…
Binding Dot	\BndDot	·
Binding Bar	\BndBar	|
Long Vertical Bar	\LngVrtBar	∣
Question mark	\Queston	?
Exclamation point	\Exclaim	!
Percent sign	\Percent	%
Ampersand	\Ampersand	&
Dollar sign	\Dollar	$
At sign	\At	@
ASCII Circumflex	\Circumflex	^
Number sign	\Number	#
Underscore	\Underscore	_
Tilde	\Tild	~
Left (back) slash	\LeftSlash	\
Right (forward) slash	\RightSlash	/

Single dagger	\Dagger	†
Double horizontal dagger	\Ddagger	‡
Double vertical dagger	\Daggerr	‡
Double horizontal and vertical dagger	\Ddaggerr	‡

Single quote	\SingleQuote	'
Double quote	\DoubleQuote	"
Back quote (grave)	\BackQuote	`

Shift for superscripts	\ShftSuper	↑
Shift for subscripts	\ShftSubscr	↓
Shift for accents	\ShftAccent	↕

Replace All Bound Variables (right)	\RplcAllBndRight	$\twoheadrightarrow$
Replace All Bound Variables (left)	\RplcAllBndLeft	$\twoheadleftarrow$
Replace All (right)	\RplcAllRight	$\rightarrow$
Replace All (left)	\RplcAllLeft	$\leftarrow$
Replace Any Free Variables (right)	\RplcFreeRight	$\rightarrow$
Replace Any Free Variables (left)	\RplcFreeLeft	$\leftarrow$
Replace Equivalent Expressions (right)	\RplcEquvRight	$\rightarrow$
Replace Equivalent Expressions (left)	\RplcEquvLeft	$\leftarrow$

Least Fixed Point	\LstFix	μ
Greatest Fixed Point	\GrtFix	ν
Choice	\Choice	τ
Extended Least Fixed Point	\ExLstFix	$\vec{\mu}$
Extended Greatest Fixed Point	\ExGrtFix	$\vec{\nu}$
First Ordinal (omega)	\FrstOrd	ω

Bunch Inclusion	\Of	:
Set Membership	\In	$\in$
Set Membership Negated	\NotIn	$\notin$

Empty Bunch	\EmptyBunch	$\emptyset$
Null Set	\NullSet	$\emptyset$

Logical Necessity	\LogNec	$\Box$
Logical Possibility	\LogPos	$\Diamond$
Logical Next	\LogNext	$\bigcirc$
Logical Future	\LogFutr	$\triangleright$
Logical Past	\LogPast	$\triangleleft$
Logical Contingency	\LogCont	$\triangledown$
Logical Non-contingency	\LogNonCont	$\triangle$

Necessity	\Nec	$\boxminus$
Possibility	\Pos	$\diamondminus$
Next	\Next	$\ominus$
Future	\Futr	$\trianglerighteq$
Past	\Past	$\trianglelefteq$
Contingency	\Cont	$\triangledown$
Non-contingency	\NonCont	$\triangle$

Factual Necessity	\FacNec	■
Factual Possibility	\FacPos	◆
Factual Next	\FacNext	●
Factual Future	\FacFutr	▶
Factual Past	\FacPast	◀
Factual Contingency	\FacCont	▼
Factual Non-contingency	\FacNonCont	▲

Bunch Meet	\BnchMeet	⊓
Bunch Join	\BnchJoin	⊔

Strict Subbunch	\StrctSbnch	⊏
Strict Subbunch Negated	\NotStrctSbnch	⊏̸
Subbunch	\Sbnch	⊑
Subbunch Negated	\NotSbnch	⋢

Strict Weak Subbunch	\StrctWkSbnch	⊏̣
Strict Weak Subbunch Negated	\NotStrctWkSbnch	⊏̸̣
Weak Subbunch	\WkSbnch	⊑̣
Weak Subbunch Negated	\NotWkSbnch	⋢̣

Map Meet	\MapMeet	⊓
Map Join	\MapJoin	⊔

Strict Submap	\StrctSbmap	⊏
Strict Submap Negated	\NotStrctSbmap	⊏̸
Submap	\Sbmap	⊑
Submap Negated	\NotSbmap	⋢

Set Intersection	\SetMeet	∩
Set Union	\SetJoin	∪
Normal Subgroup	\Normal	◁
Set Symmetric Difference	\SetSymDiff	△

Strict Subset	\StrctSbset	⊂
Strict Subset Negated	\NotStrctSbset	⊄
Subset	\Sbset	⊆
Subset Negated	\NotSbset	⊈

Bunch Meet Quantifier	\QuantBnchMeet	$\sqcap$
Bunch Join Quantifier	\QuantBnchJoin	$\sqcup$
Set Intersection Quantifier	\QuantSetMeet	$\cap$
Set Union Quantifier	\QuantSetJoin	$\cup$

Less Than	\Ls	$<$
Less Than or Equal	\Lse	$\leq$
Equal	\Eq	$=$
Similar	\Sm	$\simeq$
Greater Than	\Gr	$>$
Greater Than or Equal	\Gre	$\geq$

Not Less Than	\NotLs	$\not<$
Not Less Than or Equal	\NotLse	$\not\leq$
Not Equal	\NotEq	$\neq$
Not Similar	\NotSm	$\not\simeq$
Not Greater Than	\NotGr	$\not>$
Not Greater Than or Equal	\NotGre	$\not\geq$

Precedes	\Pre	$\prec$
Precedes or Equal	\Preq	$\preceq$
Succeeds	\Suc	$\succ$
Succeeds or Equal	\Sucq	$\succeq$

Not Precedes	\NotPre	$\not\prec$
Not Precedes or Equal	\NotPreq	$\not\preceq$
Not Succeeds	\NotSuc	$\not\succ$
Not Succeeds or Equal	\NotSucq	$\not\succeq$

Minus	\Minus	$-$
Plus	\Plus	$+$
Plus / Minus	\PlusMinus	$\pm$
Minus / Plus	\MinusPlus	$\mp$
Asterick	\Asterick	$*$
Divide	\Divide	$\setminus$
Times	\Times	$\times$

Append	\Append	⟝
Concatenation	\Concat	∥

Large Circled Plus	\CircPlus	⨁
Large Circled Times	\CircTimes	⨂
Circled Star	\CircStar	⊛

Full height, full width space	\KntNN	
Full height, three quarter width space	\KntNE	
Full height, half width space	\KntNF	
Full height, quarter width space	\KntNQ	
Full height, zero width space	\KntNZ	

Three quarter height, full width space	\KntEN	
Three quarter height, three quarter width space	\KntEE	
Three quarter height, half width space	\KntEF	
Three quarter height, quarter width space	\KntEQ	
Three quarter height, zero width space	\KntEZ	

Half height, full width space	\KntFN	
Half height, three quarter width space	\KntFE	
Half height, half width space	\KntFF	
Half height, quarter width space	\KntFQ	
Half height, zero width space	\KntFZ	

Quarter height, full width space	\KntQN	
Quarter height, three quarter width space	\KntQE	
Quarter height, half width space	\KntQF	
Quarter height, quarter width space	\KntQQ	
Quarter height, zero width space	\KntQZ	

Zero height, full width space	\KntZN	
Zero height, three quarter width space	\KntZE	
Zero height, half width space	\KntZF	
Zero height, quarter width space	\KntZQ	
Zero height, zero width space	\KntZZ	

Horz flow, Cross, solid over, solid under	\KntHXSOSU	
Horz flow, Cross, solid under, solid over	\KntHXSUSO	
Vert flow, Cross, solid over, solid under	\KntVXSOSU	
Vert flow, Cross, solid under, solid over	\KntVXSUSO	
Horz flow, Cross, dashed over, solid under	\KntHXDOSU	
Horz flow, Cross, solid under, dashed over	\KntHXSUDO	
Vert flow, Cross, dashed over, solid under	\KntVXDOSU	
Vert flow, Cross, solid under, dashed over	\KntVXSUDO	
Horz flow, Cross, solid over, dashed under	\KntHXSODU	
Horz flow, Cross, dashed under, solid over	\KntHXDUSO	
Vert flow, Cross, solid over, dashed under	\KntVXSODU	
Vert flow, Cross, dashed under, solid over	\KntVXDUSO	
Horz flow, Cross, dashed over, dashed under	\KntHXDODU	
Horz flow, Cross, dashed under, dashed over	\KntHXDUDO	
Vert flow, Cross, dashed over, dashed under	\KntVXDODU	
Vert flow, Cross, dashed under, dashed over	\KntVXDUDO	

Horz flow, Horizontal smoothing; solid top, solid bottom	\KntHHMSTSB	
Vert flow, Vertical smoothing; solid left, solid right	\KntVVMSLSR	
Horz flow, Horizontal smoothing; dashed top, solid bottom	\KntHHMDTSB	
Vert flow, Vertical smoothing; solid left, dashed right	\KntVVMSLDR	
Horz flow, Horizontal smoothing; solid top, dashed bottom	\KntHHMSTDB	
Vert flow, Vertical smoothing; dashed left, solid right	\KntVVMDLSR	
Horz flow, Horizontal smoothing; dashed top, dashed bottom	\KntHHMDTDB	
Vert flow, Vertical smoothing; dashed left, dashed right	\KntVVMDLDR	
Horz flow, Vertical smoothing, solid left, solid right	\KntHVMSLSR	
Vert flow, Horizontal smoothing, solid top, solid bottom	\KntVHMSTSB	
Horz flow, Vertical smoothing, solid left, dashed right	\KntHVMSLDR	
Vert flow, Horizontal smoothing, solid top, dashed bottom	\KntVHMSTDB	
Horz flow, Vertical smoothing, dashed left, solid right	\KntHVMDLSR	
Vert flow, Horizontal smoothing, dashed top, solid bottom	\KntVHMDTSB	
Horz flow, Vertical smoothing, dashed left, dashed right	\KntHVMDLDR	
Vert flow, Horizontal smoothing, dashed top, dashed bottom	\KntVHMDTDB	

Left cap, solid	\KntLCS	
Top cap, solid	\KntTCS	
Right cap, solid	\KntRCS	
Bottom cap, solid	\KntBCS	
Left cap, dashed	\KntLCD	
Top cap, dashed	\KntTCD	
Right cap, dashed	\KntRCD	
Bottom cap, dashed	\KntBCD	
Left half width cap	\KntLFC	
Top half width cap	\KntTFC	
Right half width cap	\KntRFC	
Bottom half width cap	\KntBFC	
Left quarter width cap	\KntLQC	
Top quarter width cap	\KntTQC	
Right quarter width cap	\KntRQC	
Bottom quarter width cap	\KntBQC	

Solid join, top left to bottom right	\KntSJTLBR	
Solid join, bottom left to top right	\KntSJBLTR	
Solid join, top right to bottom left	\KntSJTRBL	
Solid join, bottom right to top left	\KntSJBRTL	
Dashed join, top left to bottom right	\KntDJTLBR	
Dashed join, bottom left to top right	\KntDJBLTR	
Dashed join, top right to bottom left	\KntDJTRBL	
Dashed join, bottom right to top left	\KntDJBRTL	
Solid half width join, top left to bottom right	\KntSFJTLBR	
Solid half width join, bottom left to top right	\KntSFJBLTR	
Solid half width join, top right to bottom left	\KntSFJTRBL	
Solid half width join, bottom right to top left	\KntSFJBRTL	
Dashed half width join, top left to bottom right	\KntDFJTLBR	
Dashed half width join, bottom left to top right	\KntDFJBLTR	
Dashed half width join, top right to bottom left	\KntDFJTRBL	
Dashed half width join, bottom right to top left	\KntDFJBRTL	

Left, top solid corner	\KntLTSC	
Top, right solid corner	\KntTRSC	
Right, bottom solid corner	\KntRBSC	
Bottom, left solid corner	\KntBLSC	
Left, top dashed corner	\KntLTDC	
Top, right dashed corner	\KntTRDC	
Right, bottom dashed corner	\KntRBDC	
Bottom, left dashed corner	\KntBLDC	
Left, top solid half width corner	\KntLTSFC	
Top, right solid half width corner	\KntTRSFC	
Right, bottom solid half width corner	\KntRBSFC	
Bottom, left solid half width corner	\KntBLSFC	
Left, top dashed half width corner	\KntLTDFC	
Top, right dashed half width corner	\KntTRDFC	
Right, bottom dashed half width corner	\KntRBDFC	
Bottom, left dashed half width corner	\KntBLDFC	

Top solid line	\KntTSN	
Right solid line	\KntRSN	
Bottom solid line	\KntBSN	
Left solid line	\KntLSN	
Top dashed line	\KntTDN	
Right dashed line	\KntRDN	
Bottom dashed line	\KntBDN	
Left dashed line	\KntLDN	
Top solid line, bottom solid line	\KntTSNBSN	
Left solid line, right solid line	\KntLSNRSN	
Top solid line, bottom dashed line	\KntTSNBDN	
Left dashed line, right solid line	\KntLDNRSN	
Top dashed line, bottom solid line	\KntTDNBSN	
Left solid line, right dashed line	\KntLSNRDN	
Top dashed line, bottom dashed line	\KntTDNBDN	
Left dashed line, right dashed line	\KntLDNRDN	

Top solid half line	\KntTSFN	
Right solid half line	\KntRSFN	
Bottom solid half line	\KntBSFN	
Left solid half line	\KntLSFN	
Top dashed half line	\KntTSDN	
Right dashed half line	\KntRSDN	
Bottom dashed half line	\KntBSDN	
Left dashed half line	\KntLSDN	
Top solid half line, bottom solid half line	\KntTSFNBSFN	
Left solid half line, right solid half line	\KntLSFNRSFN	
Top solid half line, bottom dashed half line	\KntTSFNBDFN	
Left dashed half line, right solid half line	\KntLDFNRSFN	
Top dashed half line, bottom solid half line	\KntTDFNBSFN	
Left solid half line, right dashed half line	\KntLSFNRDFN	
Top dashed half line, bottom dashed half line	\KntTDFNBDFN	
Left dashed half line, right dashed half line	\KntLDFNRDFN	

Top solid forth line	\KntTSQN	
Right solid forth line	\KntRSQN	
Bottom solid forth line	\KntBSQN	
Left solid forth line	\KntLSQN	
Top dashed forth line	\KntTDQN	
Right dashed forth line	\KntRDQN	
Bottom dashed forth line	\KntBDQN	
Left dashed forth line	\KntLDQN	
Top solid forth line, bottom solid forth line	\KntTSQNBSQN	
Left solid forth line, right solid forth line	\KntLSQNRSQN	
Top solid forth line, bottom dashed forth line	\KntTSQNBDQN	
Left dashed forth line, right solid forth line	\KntLDQNRSQN	
Top dashed forth line, bottom solid forth line	\KntBDQNBSQN	
Left solid forth line, right dashed forth line	\KntLSQNRDQN	
Top dashed forth line, bottom dashed forth line	\KntTDQNBDQN	
Left dashed forth line, right dashed forth line	\KntLDQNRDQN	

Top solid left arrow	\KntTSLA	
Right solid up arrow	\KntRSUA	
Bottom solid right arrow	\KntBSRA	
Left solid down arrow	\KntLSDA	
Top solid right arrow	\KntTSRA	
Right solid down arrow	\KntRSDA	
Bottom solid left arrow	\KntBSLA	
Left solid up arrow	\KntLSUA	
Top dashed left arrow	\KntTDLA	
Right dashed up arrow	\KntRDUA	
Bottom dashed right arrow	\KntBDRA	
Left dashed down arrow	\KntLDDA	
Top dashed right arrow	\KntTDRA	
Right dashed down arrow	\KntRDDA	
Bottom dashed left arrow	\KntBDLA	
Left dashed up arrow	\KntLDUA	

Top solid left arrow, bottom solid left arrow	\KntTSLABSLA	
Left solid up arrow, right solid up arrow	\KntLSUARSUA	
Top solid right arrow, bottom solid right arrow	\KntTSRABSRA	
Left solid down arrow, right solid down arrow	\KntLSDARSDA	
Top solid left arrow, bottom solid right arrow	\KntTSLABSRA	
Left solid down arrow, right solid up arrow	\KntLSDARSUA	
Top solid right arrow, bottom solid left arrow	\KntTSRABSLA	
Left solid up arrow, right solid down arrow	\KntLSUARSDA	
Top solid left arrow, bottom dashed left arrow	\KntTSLABDLA	
Left dashed up arrow, right solid up arrow	\KntLDUARSUA	
Top dashed right arrow, bottom solid right arrow	\KntTDRABSRA	
Left solid down arrow, right dashed down arrow	\KntLSDARDDA	
Top dashed left arrow, bottom solid left arrow	\KntTDLABSLA	
Left solid up arrow, right dashed up arrow	\KntLSUARDUA	
Top solid right arrow, bottom dashed right arrow	\KntTSRABDRA	
Left dashed down arrow, right solid down arrow	\KntLDDARSDA	

Top solid left arrow, bottom dashed right arrow	\KntTSLABDRA	
Left dashed down arrow, right solid up arrow	\KntLDDARSUA	
Top dashed left arrow, bottom solid right arrow	\KntTDLABSRA	
Left solid down arrow, right dashed up arrow	\KntLSDARDUA	
Top dashed right arrow, bottom solid left arrow	\KntTDRABSLA	
Left solid up arrow, right dashed down arrow	\KntLSUARDDA	
Top solid right arrow, bottom dashed left arrow	\KntTSRABDLA	
Left dashed up arrow, right solid down arrow	\KntLDUARSDA	
Top dashed left arrow, bottom dashed left arrow	\KntTDLABDLA	
Left dashed up arrow, right dashed up arrow	\KntLDUARDUA	
Top dashed right arrow, bottom dashed right arrow	\KntTDRABDRA	
Left dashed down arrow, right dashed down arrow	\KntLDDARDDA	
Top dashed left arrow, bottom dashed right arrow	\KntTDLABDRA	
Left dashed down arrow, right dashed up arrow	\KntLDDARDUA	
Top dashed right arrow, bottom dashed left arrow	\KntTDRABDLA	
Left dashed up arrow, right dashed down arrow	\KntLDUARDDA	

Top solid line, bottom solid left arrow	\KntTSNBSLA	
Left solid up arrow, right solid line	\KntLSUARSN	
Top solid right arrow, bottom solid line	\KntTSRABSN	
Left solid line, right solid down arrow	\KntLSNRSDA	
Top solid line, bottom solid right arrow	\KntTSNBSRA	
Left solid down arrow, right solid line	\KntLSDARSN	
Top solid left arrow, bottom solid line	\KntTSLABSN	
Left solid line, right solid up arrow	\KntLSNRSUA	
Top dashed line, bottom solid left arrow	\KntTDNBSLA	
Left solid up arrow, right dashed line	\KntLSUARDN	
Top solid right arrow, bottom dashed line	\KntTSRABDN	
Left dashed line, right solid down arrow	\KntLDNRSDA	
Top solid left arrow, bottom dashed line	\KntTSLABDN	
Left dashed line, right solid up arrow	\KntLDNRSUA	
Top dashed line, bottom solid right arrow	\KntTDNBSRA	
Left solid down arrow, right dashed line	\KntLSDARDN	

Top solid line, bottom dashed left arrow	\KntTSNBDLA	
Left dashed up arrow, right solid line	\KntLDUARSN	
Top dashed right arrow, bottom solid line	\KntTDRABSN	
Left solid line, right dashed down arrow	\KntLSNRDDA	
Top dashed left arrow, bottom solid line	\KntTDLABSN	
Left solid line, right dashed up arrow	\KntLSNRDUA	
Top solid line, bottom dashed right arrow	\KntTSNBDRA	
Left dashed down arrow, right solid line	\KntLDDARSN	
Top dashed line, bottom dashed left arrow	\KntTDNBDLA	
Left dashed up arrow, right dashed line	\KntLDUARDN	
Top dashed right arrow, bottom dashed line	\KntTDRABDN	
Left dashed line, right dashed down arrow	\KntLDNRDDA	
Top dashed left arrow, bottom dashed line	\KntTDLABDN	
Left dashed line, right dashed up arrow	\KntLDNRDUA	
Top dashed line, bottom dashed right arrow	\KntTDNBDRA	
Left dashed down arrow, right dashed line	\KntLDDARDN	

Top solid line, half height	\KntTSNF	
Right solid line, half width	\KntRSNF	
Bottom solid line, half height	\KntBSNF	
Left solid line, half width	\KntLSNF	
Top solid half line, half height	\KntTSFNF	
Right solid half line, half width	\KntRSFNF	
Bottom solid half line, half height	\KntBSFNF	
Left solid half line, half width	\KntLSFNF	
Top solid forth line, half height	\KntTSQNF	
Right solid forth line, half width	\KntRSQNF	
Bottom solid forth line, half height	\KntBSQNF	
Left solid forth line, half width	\KntLSQNF	

Black square	\BlackSquare	■
Black square round corners	\BlackSquareRoundCorners	⬛
Black diamond	\BlackDiamond	◆
Black circle	\BlackCircle	●
Black right triangle	\BlackRightTriangle	▶
Black left triangle	\BlackLeftTriangle	◀
Black down triangle	\BlackDownTriangle	▼
Black up triangle	\BlackUpTriangle	▲
Black small circle	\BlackSmallCircle	●
Black very small circle	\BlackVerySmallCircle	•
Black lozenge	\BlackLozenge	⧫
Black curved diamond	\BlackCurvedDiamond	✦
Black very small square	\BlackVerySmallSquare	▪
Black left arrow head	\BlackLeftArrowHead	◀
Black right arrow head	\BlackRightArrowHead	▶
Black right curved arrow head	\BlackRightCurvedArrowHead	◗

White square	\WhiteSquare	□
White square round corners	\WhiteSquareRoundCorners	▢
White diamond	\WhiteDiamond	◇
White circle	\WhiteCircle	○
White right triangle	\WhiteRightTriangle	▷
White left triangle	\WhiteLeftTriangle	◁
White down triangle	\WhiteDownTriangle	▽
White up triangle	\WhiteUpTriangle	△
White small circle	\WhiteSmallCircle	○
White very small circle	\WhiteVerySmallCircle	∘
White lozenge	\WhiteLozenge	⧈
White curved diamond	\WhiteCurvedDiamond	✧
White very small square	\WhiteVerySmallSquare	▫
White left arrow head	\WhiteLeftArrowHead	◁
White right arrow head	\WhiteRightArrowHead	▷
White right curved arrow head	\WhiteRightCurvedArrowHead	▷

Outline square	\OutlineSquare	
Outline square round corners	\OutlineSquareRoundCorners	
Outline diamond	\OutlineDiamond	
Outline circle	\OutlineCircle	
Outline right triangle	\OutlineRightTriangle	
Outline left triangle	\OutlineLeftTriangle	
Outline down triangle	\OutlineDownTriangle	
Outline up triangle	\OutlineUpTriangle	
Outline small circle	\OutlineSmallCircle	
Outline very small circle	\OutlineVerySmallCircle	
Outline lozenge	\OutlineLozenge	
Outline curved diamond	\OutlineCurvedDiamond	
Outline very small square	\OutlineVerySmallSquare	
Outline left arrow head	\OutlineLeftArrowHead	
Outline right arrow head	\OutlineRightArrowHead	
Outline right curved arrow head	\OutlineRightCurvedArrowHead	

Dotted square	\DottedSquare	
Dotted square round corners	\DottedSquareRoundCorners	
Dotted diamond	\DottedDiamond	
Dotted circle	\DottedCircle	
Dotted right triangle	\DottedRightTriangle	
Dotted left triangle	\DottedLeftTriangle	
Dotted down triangle	\DottedDownTriangle	
Dotted up triangle	\DottedUpTriangle	
Dotted small circle	\DottedSmallCircle	
Dotted very small circle	\DottedVerySmallCircle	
Dotted lozenge	\DottedLozenge	
Dotted curved diamond	\DottedCurvedDiamond	
Dotted very small square	\DottedVerySmallSquare	
Dotted left arrow head	\DottedLeftArrowHead	
Dotted right arrow head	\DottedRightArrowHead	
Dotted right curved arrow head	\DottedRightCurvedArrowHead	

White square containing black square	\WhiteSquareContainingBlackSquare	▣
White square round corners containing black square	\WhiteSquareRoundCornersContainingBlackSquare	▣
White diamond containing black diamond	\WhiteDiamondContainingBlackDiamond	◈
White circle containing black circle	\WhiteCircleContainingBlackCircle	◉
White right triangle containing black right triangle	\WhiteRightTriangleContainingBlackRightTriangle	⧐
White left triangle containing black left triangle	\WhiteLeftTriangleContainingBlackLeftTriangle	⧏
White down triangle containing black down triangle	\WhiteDownTriangleContainingBlackDownTriangle	⧩
White up triangle containing black up triangle	\WhiteUpTriangleContainingBlackUpTriangle	⧨
White small circle containing black circle	\WhiteSmallCircleContainingBlackCircle	⊙
White very small circle containing black circle	\WhiteVerySmallCircleContainingBlackCircle	⊙
White lozenge containing black lozenge	\WhiteLozengeContainingBlackLozenge	⧈
White curved diamond containing black diamond	\WhiteCurvedDiamondContainingBlackDiamond	◈
White very small square containing black square	\WhiteVerySmallSquareContainingBlackSquare	▣
White really small circle	\WhiteReallySmallCircle	∘
White really small square	\WhiteReallySmallSquare	▫
White really small diamond	\WhiteReallySmallDiamond	◇

Horizontally divided square	\HorizontallyDividedSquare	⊟
Horizontally divided square round corners	\HorizontallyDividedSquareRoundCorners	⊟
Horizontally divided diamond	\HorizontallyDividedDiamond	⟠
Horizontally divided circle	\HorizontallyDividedCircle	⊖
Horizontally divided right triangle	\HorizontallyDividedRightTriangle	⧐
Horizontally divided left triangle	\HorizontallyDividedLeftTriangle	⧏
Horizontally divided down triangle	\HorizontallyDividedDownTriangle	⧩
Horizontally divided up triangle	\HorizontallyDividedUpTriangle	⧨
Horizontally divided small circle	\HorizontallyDividedSmallCircle	⊖
Horizontally divided very small circle	\HorizontallyDividedVerySmallCircle	⊖
Horizontally divided lozenge	\HorizontallyDividedLozenge	⧈
Horizontally divided curved diamond	\HorizontallyDividedCurvedDiamond	⟠
Horizontally divided very small square	\HorizontallyDividedVerySmallSquare	⊟
Black really small circle	\BlackReallySmallCircle	●
Black really small square	\BlackReallySmallSquare	■
Black really small diamond	\BlackReallySmallDiamond	◆

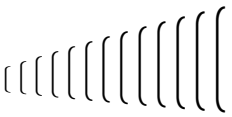
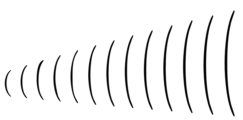
Vertically divided square	\VerticallyDividedSquare	◫
Vertically divided square round corners	\VerticallyDividedSquareRoundCorners	◫
Vertically divided diamond	\VerticallyDividedDiamond	⟠
Vertically divided circle	\VerticallyDividedCircle	◫
Vertically divided right triangle	\VerticallyDividedRightTriangle	◫
Vertically divided left triangle	\VerticallyDividedLeftTriangle	◫
Vertically divided down triangle	\VerticallyDividedDownTriangle	◫
Vertically divided up triangle	\VerticallyDividedUpTriangle	◫
Vertically divided small circle	\VerticallyDividedSmallCircle	◫
Vertically divided very small circle	\VerticallyDividedVerySmallCircle	◫
Vertically divided lozenge	\VerticallyDividedLozenge	◫
Vertically divided curved diamond	\VerticallyDividedCurvedDiamond	⟠
Vertically divided very small square	\VerticallyDividedVerySmallSquare	◫

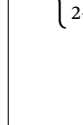
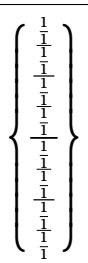
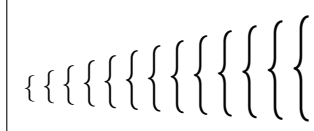
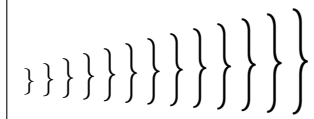
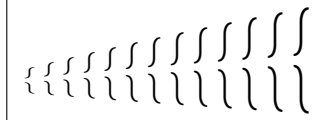
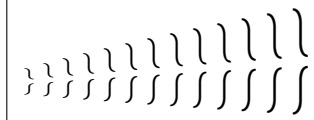
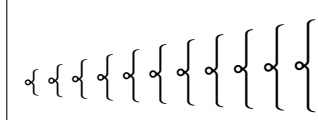
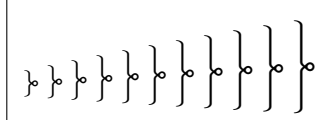
Quartered square	\QuarteredSquare	⊞
Quartered square round corners	\QuarteredSquareRoundCorners	⊞
Quartered diamond	\QuarteredDiamond	⟠
Quartered circle	\QuarteredCircle	⊞
Quartered right triangle	\QuarteredRightTriangle	⊞
Quartered left triangle	\QuarteredLeftTriangle	⊞
Quartered down triangle	\QuarteredDownTriangle	⊞
Quartered up triangle	\QuarteredUpTriangle	⊞
Quartered small circle	\QuarteredSmallCircle	⊞
Quartered very small circle	\QuarteredVerySmallCircle	⊞
Quarted lozenge	\QuartedLozenge	⊞
Quartered curved diamond	\QuarteredCurvedDiamond	⟠
Quartered very small square	\QuarteredVerySmallSquare	⊞

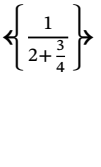
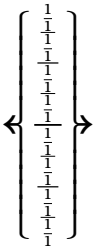
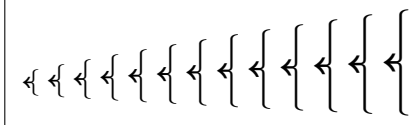
Down slashed square	\DownSlashedSquare	
Down slashed square round corners	\DownSlashedSquareRoundCorners	
Down slashed diamond	\DownSlashedDiamond	
Down slashed circle	\DownSlashedCircle	
Down slashed right triangle	\DownSlashedRightTriangle	
Down slashed left triangle	\DownSlashedLeftTriangle	
Down slashed down triangle	\DownSlashedDownTriangle	
Down slashed up triangle	\DownSlashedUpTriangle	
Down slashed small circle	\DownSlashedSmallCircle	
Down slashed very small circle	\DownSlashedVerySmallCircle	
Down slashed lozenge	\DownSlashedLozenge	
Down slashed curved diamond	\DownSlashedCurvedDiamond	
Down slashed very small square	\DownSlashedVerySmallSquare	

Up slashed square	\UpSlashedSquare	
Up slahsed square round corners	\UpSlahsedSquareRoundCorners	
Up slashed diamond	\UpSlashedDiamond	
Up slashed circle	\UpSlashedCircle	
Up slashed right triangle	\UpSlashedRightTriangle	
Up slashed left triangle	\UpSlashedLeftTriangle	
Up slashed down triangle	\UpSlashedDownTriangle	
Up slashed up triangle	\UpSlashedUpTriangle	
Up slashed small circle	\UpSlashedSmallCircle	
Up slashed very small circle	\UpSlashedVerySmallCircle	
Up slashed lozenge	\UpSlashedLozenge	
Up slashed curved diamond	\UpSlashedCurvedDiamond	
Up slashed very small square	\UpSlashedVerySmallSquare	

Crossed square	\CrossedSquare	⊠
Crossed square round corners	\CrossedSquareRoundCorners	⊗
Crossed diamond	\CrossedDiamond	⟡
Crossed circle	\CrossedCircle	⊗
Crossed right triangle	\CrossedRightTriangle	⧐
Crossed left triangle	\CrossedLeftTriangle	⧏
Crossed down triangle	\CrossedDownTriangle	⧩
Crossed up triangle	\CrossedUpTriangle	⧨
Crossed small circle	\CrossedSmallCircle	⊗
Crossed very small circle	\CrossedVerySmallCircle	⊗
Crossed lozenge	\CrossedLozenge	⧓
Crossed curved diamond	\CrossedCurvedDiamond	⟡
Crossed very small square	\CrossedVerySmallSquare	⊠

\OpnBarS, \OpnBar[A-L]	$\left\vert\frac{1}{2+\frac{3}{4}}\right\vert$	$\left\vert\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right\vert$	
\ClsBarS, \ClsBar[A-L]	$\left\vert\frac{1}{2+\frac{3}{4}}\right\vert$	$\left\vert\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right\vert$	
\BndBarS, \BndBar[A-L]	$\left\{x\left\vert\frac{1}{2+\frac{3}{4}}\right\vert\right\}$	$\left\{x\left\vert\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right\vert\right\}$	
\OpnGrpS, \OpnGrp[A-L]	$\left(\frac{1}{2+\frac{3}{4}}\right)$	$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right)$	
\ClsGrpS, \ClsGrp[A-L]	$\left(\frac{1}{2+\frac{3}{4}}\right)$	$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right)$	
\OpnParnS, \OpnParn[A-L]	$\left(\frac{1}{2+\frac{3}{4}}\right)$	$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right)$	
\ClsParnS, \ClsParn[A-L]	$\left(\frac{1}{2+\frac{3}{4}}\right)$	$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1}}}}}}}}\right)$	

\OpnBracS, \OpnBrac[A-L]			
\ClsBracS, \ClsBrac[A-L]			
\OpnBrknBracS, \OpnBrknBrac[A-L]			
\ClsBrknBracS, \ClsBrknBrac[A-L]			
\OpnCircBracS, \OpnCircBrac[A-L]			
\ClsCircBracS, \ClsCircBrac[A-L]			

\OpnArrwBracS, \OpnArrwBrac[A-L]			
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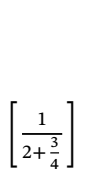
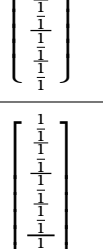
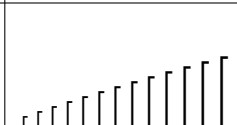
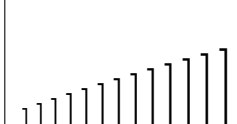
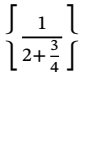
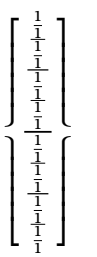
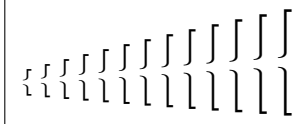
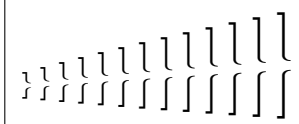
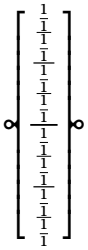
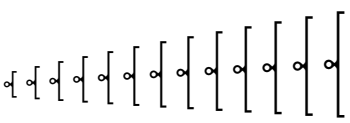
\OpnBrktS, \OpnBrkt[A-L]			
\ClsBrktS, \ClsBrkt[A-L]			
\OpnBrknBrktS, \OpnBrknBrkt[A-L]			
\ClsBrknBrktS, \ClsBrknBrkt[A-L]			

\OpnCircBrktS, \OpnCircBrkt[A-L]			
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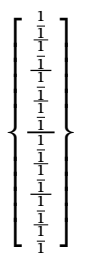
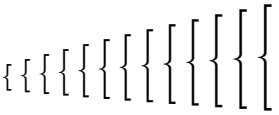
\OpnCrlyBrktS, \OpnCrlyBrkt[A-L]			
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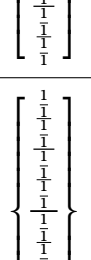
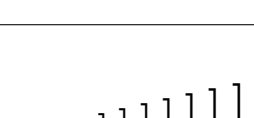
\OpnTortoiseS, \OpnTortoise[A-L]			
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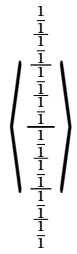
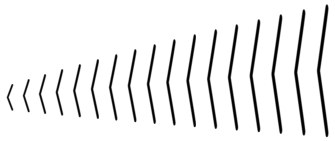
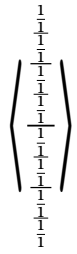
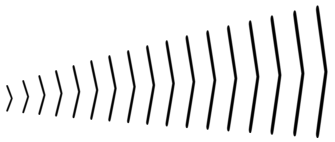
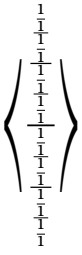
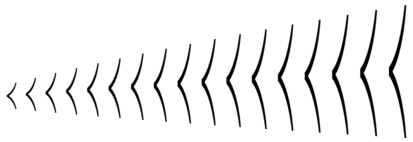
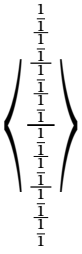
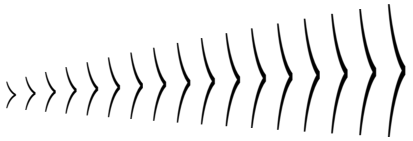
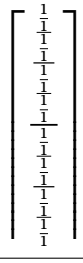
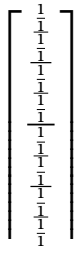
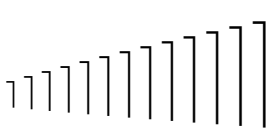
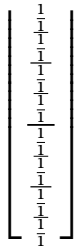
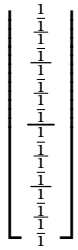
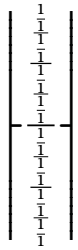
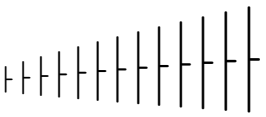
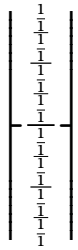
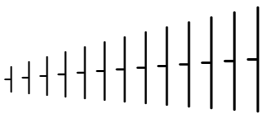
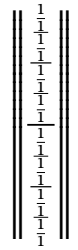
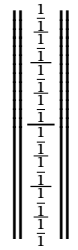
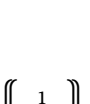
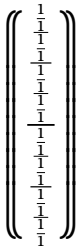
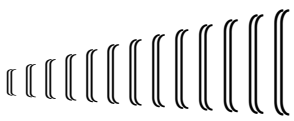
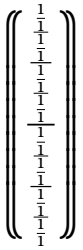
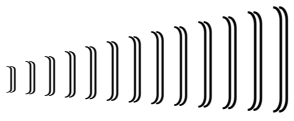
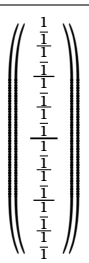
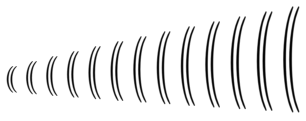
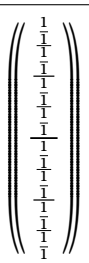
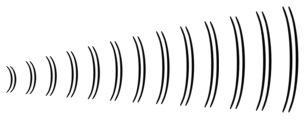
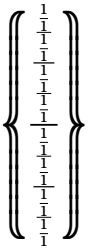
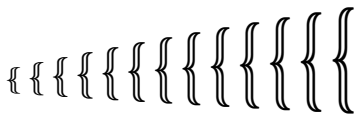
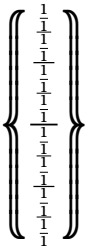
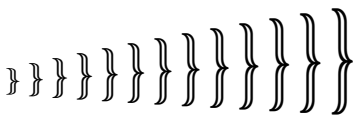
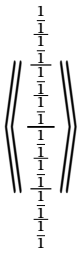
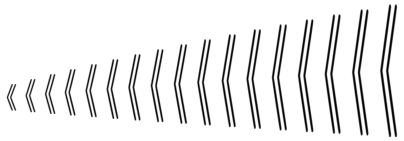
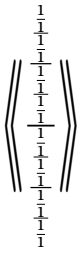
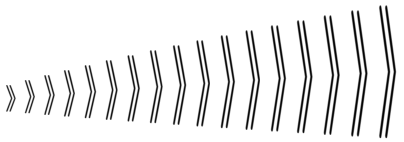
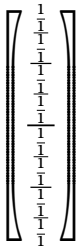
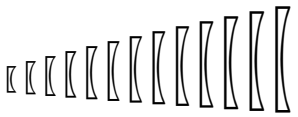
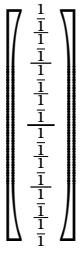
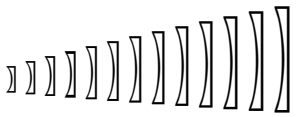
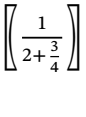
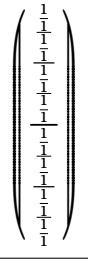
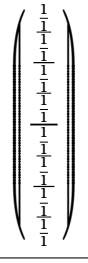
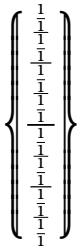
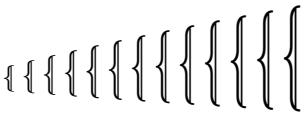
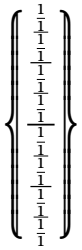
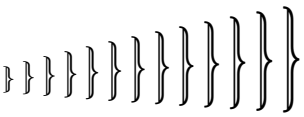
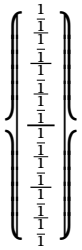
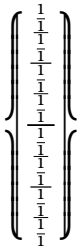
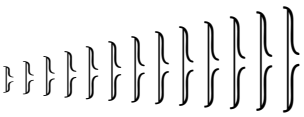
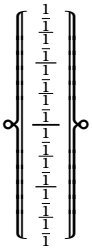
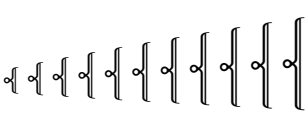
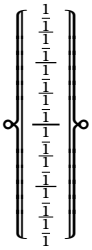
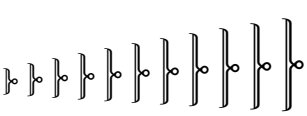
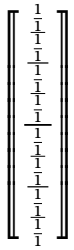
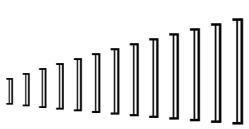
\OpnAnglS, \OpnAngl[A-P]			
\ClsAnglS, \ClsAngl[A-P]			
\OpnCurvAnglS, \OpnCurvAngl[A-P]			
\ClsCurvAnglS, \ClsCurvAngl[A-P]			
\OpnCeilS, \OpnCeil[A-L]			
\ClsCeilS, \ClsCeil[A-L]			

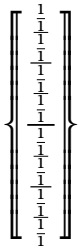
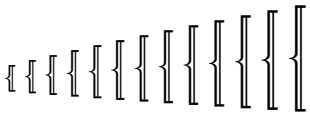
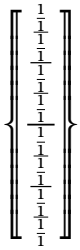
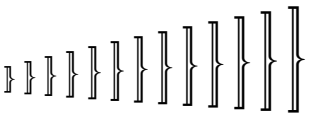
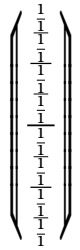
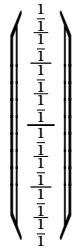
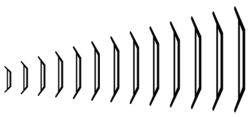
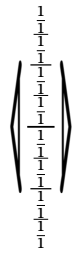
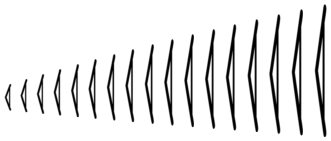
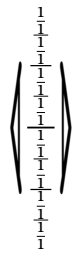
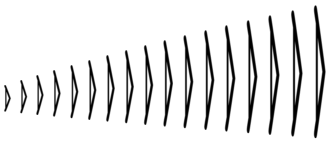
\OpnFloorS, \OpnFloor[A-L]			
\ClsFloorS, \ClsFloor[A-L]			
\OpnTurnS, \OpnTurn[A-L]			
\ClsTurnS, \ClsTurn[A-L]			
\OpnDblBarS, \OpnDblBar[A-L]			
\ClsDblBarS, \ClsDblBar[A-L]			

\OpnDblGrpS, \OpnDblGrp[A-L]			
\ClsDblGrpS, \ClsDblGrp[A-L]			
\OpnDblParnS, \OpnDblParn[A-L]			
\ClsDblParnS, \ClsDblParn[A-L]			
\OpnDblBracS, \OpnDblBrac[A-L]			
\ClsDblBracS, \ClsDblBrac[A-L]			

\OpnDblAnglS, \OpnDblAngl[A-P]			
\ClsDblAnglS, \ClsDblAngl[A-P]			
\OpnSqrParnS, \OpnSqrParn[A-L]			
\ClsSqrParnS, \ClsSqrParn[A-L]			
\OpnParnBarS, \OpnParnBar[A-L]			
\ClsParnBarS, \ClsParnBar[A-L]			

\OpnBracBarS, \OpnBracBar[A-L]			
\ClsBracBarS, \ClsBracBar[A-L]			
\OpnBrknBracBarS, \OpnBrknBracBar[A-L]			
\ClsBrknBracBarS, \ClsBrknBracBar[A-L]			
\OpnCircBracBarS, \OpnCircBracBar[A-L]			
\ClsCircBracBarS, \ClsCircBracBar[A-L]			

\OpnBrktBarS, \OpnBrktBar[A-L]			
\ClsBrktBarS, \ClsBrktBar[A-L]			
\OpnBrknBrktBarS, \OpnBrknBrktBar[A-L]			
\ClsBrknBrktBarS, \ClsBrknBrktBar[A-L]			
\OpnCircBrktBarS, \OpnCircBrktBar[A-L]			
\ClsCircBrktBarS, \ClsCircBrktBar[A-L]			

\OpnCrlyBrktBarS, \OpnCrlyBrktBar[A-L]			
\ClsCrlyBrktBarS, \ClsCrlyBrktBar[A-L]			
\OpnTortoiseBarS, \OpnTortoiseBar[A-L]			
\ClsTortoiseBarS, \ClsTortoiseBar[A-L]			
\OpnAnglBarS, \OpnAnglBar[A-P]			
\ClsAnglBarS, \ClsAnglBar[A-P]			

Greek lower case alpha	α	\grualpha	Greek upper case alpha	A	\gruAlpha
Greek lower case beta	β	\grubeta	Greek upper case beta	B	\gruBeta
Greek lower case gamma	γ	\grugamma	Greek upper case gamma	Γ	\gruGamma
Greek lower case delta	δ	\grudelta	Greek upper case delta	Δ	\gruDelta
Greek lower case epsilon	ϵ	\gruepsilon	Greek upper case epsilon	E	\gruEpsilon
Greek lower case epsilon	ε	\gruvarepsilon			
Greek lower case zeta	ζ	\gruzeta	Greek upper case zeta	Z	\gruZeta
Greek lower case eta	η	\grueta	Greek upper case eta	H	\gruEta
Greek lower case theta	θ	\grutheta	Greek upper case theta	Θ	\gruTheta
Greek lower case theta	ϑ	\gruvartheta			
Greek lower case iota	ι	\gruiota	Greek upper case iota	I	\gruIota
Greek lower case kappa	κ	\grukappa	Greek upper case kappa	K	\gruKappa
Greek lower case lambda	λ	\grulambda	Greek upper case lambda	Λ	\gruLambda
Greek lower case mu	μ	\grumu	Greek upper case mu	M	\gruMu
Greek lower case nu	ν	\grunu	Greek upper case nu	N	\gruNu
Greek lower case xi	ξ	\gruxi	Greek upper case xi	Ξ	\gruXi
Greek lower case omicron	ο	\gruomicron	Greek upper case omicron	O	\gruOmicron
Greek lower case pi	π	\grupi	Greek upper case pi	Π	\gruPi
Greek lower case pi	ϖ	\gruvarpi			
Greek lower case rho	ρ	\grurho	Greek upper case rho	P	\gruRho
Greek lower case rho	ϱ	\gruvarrho			
Greek lower case sigma	σ	\grusigma	Greek upper case sigma	Σ	\gruSigma
Greek lower case sigma	ς	\gruvarsigma			
Greek lower case tau	τ	\grutau	Greek upper case tau	T	\gruTau
Greek lower case upsilon	υ	\gruupsilon	Greek upper case upsilon	Y	\gruUpsilon
Greek lower case phi	ϕ	\gruphi	Greek upper case phi	Φ	\gruPhi
Greek lower case phi	φ	\gruvarphi			
Greek lower case chi	χ	\gruchi	Greek upper case chi	X	\gruChi
Greek lower case psi	ψ	\grupsi	Greek upper case psi	Ψ	\gruPsi
Greek lower case omega	ω	\gruomega	Greek upper case omega	Ω	\gruOmega

Greek italic lower case alpha	α	\grialpha	Greek italic upper case alpha	A	\griAlpha
Greek italic lower case beta	β	\gribeta	Greek italic upper case beta	B	\griBeta
Greek italic lower case gamma	γ	\grigamma	Greek italic upper case gamma	Γ	\griGamma
Greek italic lower case delta	δ	\gridelta	Greek italic upper case delta	Δ	\griDelta
Greek italic lower case epsilon	ϵ	\griepsilon	Greek italic upper case epsilon	E	\griEpsilon
Greek italic lower case epsilon	ε	\grivarepsilon			
Greek italic lower case zeta	ζ	\grizeta	Greek italic upper case zeta	Z	\griZeta
Greek italic lower case eta	η	\grieta	Greek italic upper case eta	H	\griEta
Greek italic lower case theta	θ	\gritheta	Greek italic upper case theta	Θ	\griTheta
Greek italic lower case theta	ϑ	\grivartheta			
Greek italic lower case iota	ι	\griiota	Greek italic upper case iota	I	\griIota
Greek italic lower case kappa	κ	\grikappa	Greek italic upper case kappa	K	\griKappa
Greek italic lower case lambda	λ	\grilambda	Greek italic upper case lambda	Λ	\griLambda
Greek italic lower case mu	μ	\grimu	Greek italic upper case mu	M	\griMu
Greek italic lower case nu	ν	\grinu	Greek italic upper case nu	N	\griNu
Greek italic lower case xi	ξ	\grixi	Greek italic upper case xi	Ξ	\griXi
Greek italic lower case omicron	o	\griomicron	Greek italic upper case omicron	O	\griOmicron
Greek italic lower case pi	π	\gripi	Greek italic upper case pi	Π	\griPi
Greek italic lower case pi	ϖ	\grivarpi			
Greek italic lower case rho	ρ	\grirho	Greek italic upper case rho	P	\griRho
Greek italic lower case rho	ϱ	\grivarrho			
Greek italic lower case sigma	σ	\grisigma	Greek italic upper case sigma	Σ	\griSigma
Greek italic lower case sigma	ς	\grivarsigma			
Greek italic lower case tau	τ	\gritau	Greek italic upper case tau	T	\griTau
Greek italic lower case upsilon	υ	\griupsilon	Greek italic upper case upsilon	Y	\griUpsilon
Greek italic lower case phi	ϕ	\griphi	Greek italic upper case phi	Φ	\griPhi
Greek italic lower case phi	φ	\grivarphi			
Greek italic lower case chi	χ	\grichi	Greek italic upper case chi	X	\griChi
Greek italic lower case psi	ψ	\gripsi	Greek italic upper case psi	Ψ	\griPsi
Greek italic lower case omega	ω	\griomega	Greek italic upper case omega	Ω	\griOmega

Logical Variable: \symsau{<alphanum>} – sans-serif script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symsai{<alphanum>} – sans-serif, oblique script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSau{<alphanum>} – sans-serif, bold script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSai{<alphanum>} – sans-serif, bold, oblique script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symslu{<alphanum>} – slab-serif script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symsli{<alphanum>} – slab-serif, oblique script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSlu{<alphanum>} – slab-serif, bold script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSli{<alphanum>} – slab-serif, bold, oblique script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symsru{<alphanum>} – serif scipt

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symsri{<alphanum>} – serif, italic script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSru{<alphanum>} – serif, bold script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Logical Variable: \symSri{<alphanum>} – serif, bold, italic script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Map Variable: \symcli{<alphanum>} – calligraphic script

0 1 2 3 4 5 6 7 8 9
𝒶 𝒷 𝒸 𝒹 𝑒 𝒻 𝑔 𝒽 𝒾 𝒿 𝓀 𝓁 𝓂 𝓃 𝑜 𝓅 𝓆 𝓇 𝓈 𝓉 𝓊 𝓋 𝓌 𝓍 𝓎 𝓏
𝒜 ℬ 𝒞 𝒟 ℰ ℱ 𝒢 ℋ ℐ 𝒥 𝒦 ℒ ℳ 𝒩 𝒪 𝒫 𝒬 ℛ 𝒮 𝒯 𝒰 𝒱 𝒲 𝒳 𝒴 𝒵

0 1 2 3 4 5 6 7 8 9
𝒶 𝒷 𝒸 𝒹 𝑒 𝒻 𝑔 𝒽 𝒾 𝒿 𝓀 𝓁 𝓂 𝓃 𝑜 𝓅 𝓆 𝓇 𝓈 𝓉 𝓊 𝓋 𝓌 𝓍 𝓎 𝓏
𝒜 ℬ 𝒞 𝒟 ℰ ℱ 𝒢 ℋ ℐ 𝒥 𝒦 ℒ ℳ 𝒩 𝒪 𝒫 𝒬 ℛ 𝒮 𝒯 𝒰 𝒱 𝒲 𝒳 𝒴 𝒵

0123456789
𝒶𝒷𝒸𝒹𝑒𝒻𝑔𝒽𝒾𝒿𝓀𝓁𝓂𝓃𝑜𝓅𝓆𝓇𝓈𝓉𝓊𝓋𝓌𝓍𝓎𝓏
𝒜ℬ𝒞𝒟ℰℱ𝒢ℋℐ𝒥𝒦ℒℳ𝒩𝒪𝒫𝒬ℛ𝒮𝒯𝒰𝒱𝒲𝒳𝒴𝒵

Map Variable: \symblu{<alphanum>} – blackboard / double struck script

𝟘 𝟙 𝟚 𝟛 𝟜 𝟝 𝟞 𝟟 𝟠 𝟡
𝕒 𝕓 𝕔 𝕕 𝕖 𝕗 𝕘 𝕙 𝕚 𝕛 𝕜 𝕝 𝕞 𝕟 𝕠 𝕡 𝕢 𝕣 𝕤 𝕥 𝕦 𝕧 𝕨 𝕩 𝕪 𝕫
𝔸 𝔹 ℂ 𝔻 𝔼 𝔽 𝔾 ℍ 𝕀 𝕁 𝕂 𝕃 𝕄 ℕ 𝕆 ℙ ℚ ℝ 𝕊 𝕋 𝕌 𝕍 𝕎 𝕏 𝕐 ℤ

𝟘 𝟙 𝟚 𝟛 𝟜 𝟝 𝟞 𝟟 𝟠 𝟡
𝕒 𝕓 𝕔 𝕕 𝕖 𝕗 𝕘 𝕙 𝕚 𝕛 𝕜 𝕝 𝕞 𝕟 𝕠 𝕡 𝕢 𝕣 𝕤 𝕥 𝕦 𝕧 𝕨 𝕩 𝕪 𝕫
𝔸 𝔹 ℂ 𝔻 𝔼 𝔽 𝔾 ℍ 𝕀 𝕁 𝕂 𝕃 𝕄 ℕ 𝕆 ℙ ℚ ℝ 𝕊 𝕋 𝕌 𝕍 𝕎 𝕏 𝕐 ℤ

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Map Variable: \symfru{<alphanum>} – Fraktur script

0 1 2 3 4 5 6 7 8 9
𝔞 𝔟 𝔠 𝔡 𝔢 𝔣 𝔤 𝔥 𝔦 𝔧 𝔨 𝔩 𝔪 𝔫 𝔬 𝔭 𝔮 𝔯 𝔰 𝔱 𝔲 𝔳 𝔴 𝔵 𝔶 𝔷
𝔄 𝔅 ℭ 𝔇 𝔈 𝔉 𝔊 ℌ ℑ 𝔍 𝔎 𝔏 𝔐 𝔑 𝔒 𝔓 𝔔 ℜ 𝔖 𝔗 𝔘 𝔙 𝔚 𝔛 𝔜 ℨ

0 1 2 3 4 5 6 7 8 9
𝔞 𝔟 𝔠 𝔡 𝔢 𝔣 𝔤 𝔥 𝔦 𝔧 𝔨 𝔩 𝔪 𝔫 𝔬 𝔭 𝔮 𝔯 𝔰 𝔱 𝔲 𝔳 𝔴 𝔵 𝔶 𝔷
𝔄 𝔅 ℭ 𝔇 𝔈 𝔉 𝔊 ℌ ℑ 𝔍 𝔎 𝔏 𝔐 𝔑 𝔒 𝔓 𝔔 ℜ 𝔖 𝔗 𝔘 𝔙 𝔚 𝔛 𝔜 ℨ

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Map Variable: \symFru{<alphanum>} – Fraktur, bold script

0 1 2 3 4 5 6 7 8 9
𝔞 𝔟 𝔠 𝔡 𝔢 𝔣 𝔤 𝔥 𝔦 𝔧 𝔨 𝔩 𝔪 𝔫 𝔬 𝔭 𝔮 𝔯 𝔰 𝔱 𝔲 𝔳 𝔴 𝔵 𝔶 𝔷
𝔄 𝔅 ℭ 𝔇 𝔈 𝔉 𝔊 ℌ ℑ 𝔍 𝔎 𝔏 𝔐 𝔑 𝔒 𝔓 𝔔 ℜ 𝔖 𝔗 𝔘 𝔙 𝔚 𝔛 𝔜 ℨ

0 1 2 3 4 5 6 7 8 9
𝔞 𝔟 𝔠 𝔡 𝔢 𝔣 𝔤 𝔥 𝔦 𝔧 𝔨 𝔩 𝔪 𝔫 𝔬 𝔭 𝔮 𝔯 𝔰 𝔱 𝔲 𝔳 𝔴 𝔵 𝔶 𝔷
𝔄 𝔅 ℭ 𝔇 𝔈 𝔉 𝔊 ℌ ℑ 𝔍 𝔎 𝔏 𝔐 𝔑 𝔒 𝔓 𝔔 ℜ 𝔖 𝔗 𝔘 𝔙 𝔚 𝔛 𝔜 ℨ

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abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Map Variable: \symmnu{<alphanum>} – Monospace, slab-serif, upright script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0123456789
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Map Variable: \symmri{<alphanum>} – Monospace serif, italic script

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Logical Variable: \symgru{<alphanum>} – Greek upright script

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω
α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ ϕ χ ψ ω
ε ϑ ϖ ϱ ς φ

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω
α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ ϕ χ ψ ω
ε ϑ ϖ ϱ ς φ

ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ
αβγδεζηθικλμνξοπρστυφχψω
εϑϖϱςφ

Logical Variable: \symgri{<alphanum>} – Greek italic script

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω
α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ ϕ χ ψ ω
ε ϑ ϖ ϱ ς φ

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω
α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ ϕ χ ψ ω
ε ϑ ϖ ϱ ς φ

ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ
αβγδεζηθικλμνξοπρστυφχψω
εϑϖϱςφ