

Package `mathfont` v. 2.1 Symbol List

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For easy, off-the-shelf use, type the following in your preamble and compile with X_ET_EX or LuaT_EX:

```
\usepackage[<font name>]{mathfont}
```

As of version 2.0, using LuaT_EX is recommended.

Overview

The `mathfont` package adapts unicode text fonts for math mode. The package allows the user to specify a default unicode font for different classes of math symbols, and it provides tools to change the font locally for math alphabet characters. When typesetting with LuaT_EX, `mathfont` adds resizable delimiters, big operators, and a `MathConstants` table to text fonts.

The `mathfont` package provides tools to access several hundred characters for math typesetting, and this document lists these symbols along with the control sequences to access them. To get access to the symbols from a section of this document, call `\mathfont` with the keyword-option for that section and the name of a font that contains those symbols. The package does not define any math symbols until you call `\mathfont` or `\setfont` (or load `mathfont` with a font name as package option), and if you see a symbol or control sequence here that is not part of standard L_TE_X, you will not be able to access it until you call `\mathfont` on the corresponding keyword. Further, `mathfont` does not come with or load any fonts by itself, so you are responsible for the fonts. Not all fonts contain all math symbols, so choose your font wisely!¹ This document shows ancient Greek in Crimson, Hebrew in Coelacanth, and all other math characters in STIXGeneral.

As of version 2.0, `mathfont` artificially adds resizable delimiters and big operator characters to text fonts when you compile with LuaT_EX. In this case, square root symbols will automatically resize, big operators will appear larger in `\displaystyle`, and you can use `\left`, `\right`, and `\big`, etc. with characters from the keyword `delimiters`. If you use X_ET_EX, `mathfont` will not create large variants of characters, and your unicode math symbols will all be the same size as they appear in the font. In this case, you may be best off sticking with the Computer Modern defaults

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¹ Besides letters and digits, most unicode text fonts should contain diacritics, delimiters, and the basic math characters in the keyword `symbols`. Text fonts will often contain square root and basic operator symbols, but they may not be suitable for math typesetting. Greek characters are hit or miss, and it is unusual for English text fonts to contain Cyrillic, Hebrew, ancient Greek, arrows, letterlike characters, or any extended (keywords `extbigops` and `extsymbols`) set of symbols. After you load `mathfont`, T_EX will print a message to the terminal if you try to typeset a missing character from some font.

Table 1: Characters Defined by Multiple Keywords

Character	Keywords	Default Font
\increment	greekupper symbols	symbols
\nabla	greekupper symbols with LuaTeX extsymbols with XeTeX	(ext)symbols
	symbols delimiters with LuaTeX	symbols normally delimiters after \left, \right, etc.
\simeq and \cong	symbols extsymbols	extsymbols

for resizable characters provided they don't clash with the rest of your document. Throughout this document, anything labeled "LuaTeX only" means that `mathfont` provides this functionality only if you enable Lua-based font adjustments. If you load `mathfont` with the `no-adjust` option, you will not be able to access these features the same as if you compile with XeTeX.

A few characters appear multiple times in this list. When that happens, it means that `mathfont` defines the control sequence for multiple keywords. If you call `\mathfont` for only one of those keywords, your symbol will appear in the font associated with that keyword. If you call `\mathfont` on multiple keywords, the package uses the font associated with the default keyword/font for that character. Table 1 lists the default keyword for each command that appears multiple times in this document. If you need unicode encoding slot numbers for character metric adjustments, each symbol corresponds to its standard unicode encoding value, with the exception of the fake angle brackets. When you typeset with LuaTeX, `mathfont` artificially adds `\fakelangle`, `\fakerangle`, `\fakellangle`, and `\fakerrangle` to the font in encoding slots 1,044,508–1,044,511 respectively.

Lower-Case Latin Characters (Keyword lower)						
a	a	k	k	u	u	
b	b	l	l	v	v	
c	c	m	m	w	w	
d	d	n	n	x	x	
e	e	o	o	y	y	
f	f	p	p	z	z	
g	g	q	q	ħ	\hbar	
h	h	r	r	ı	\imath	
i	i	s	s	J	\jmath	
j	j	t	t			

a	a	k	k	u	u
b	b	l	l	v	v
c	c	m	m	w	w
d	d	n	n	x	x
e	e	o	o	y	y
f	f	p	p	z	z
g	g	q	q	ħ	\hbar
h	h	r	r	ı	\imath
i	i	s	s	J	\jmath
j	j	t	t		

Upper-Case Latin Characters (Keyword <code>upper</code>)							
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A	A	J	J	S	S
B	B	K	K	T	T
C	C	L	L	U	U
D	D	M	M	V	V
E	E	N	N	W	W
F	F	O	O	X	X
G	G	P	P	Y	Y
H	H	Q	Q	Z	Z
I	I	R	R		

Accent Characters (Keyword <code>diacritics</code>)							
--	--	--	--	--	--	--	--

á	\acute	å	\grave	ä	\bar
ã	\aacute	ă	\breve	ă	\mathring
à	\dot	â	\hat	ă	\tilde
ä	\ddot	ă	\check		

Arabic Numeral Characters (Keyword <code>digits</code>)							
--	--	--	--	--	--	--	--

0	0	4	4	8	8
1	1	5	5	9	9
2	2	6	6		
3	3	7	7		

Upper-Case Greek Characters (Keyword <code>greekupper</code>)							
--	--	--	--	--	--	--	--

A	\Alpha	K	\Kappa	T	\Tau
B	\Beta	Λ	\Lambda	Υ	\Upsilon
Γ	\Gammama	Μ	\Mu	Φ	\Phi
Δ	\Delta	Ν	\Nu	Χ	\Chi
Ε	\Epsilon	Ξ	\Xi	Ψ	\Psi
Ζ	\Zeta	Ο	\Omicron	Ω	\Omega
Η	\Eta	Π	\Pi	Θ	\varTheta
Θ	\Theta	Ρ	\Rho	Δ	\increment
Ι	\Iota	Σ	\Sigma	∇	\nabla

Lower-Case Greek Characters (Keyword <code>greeklower</code>)							
--	--	--	--	--	--	--	--

α	\alpha	η	\eta	ν	\nu
β	\beta	θ	\theta	ξ	\xi
γ	\gamma	ι	\iota	ο	\omicron
δ	\delta	κ	\kappa	π	\pi
ε	\epsilon	λ	\lambda	ρ	\rho
ζ	\zeta	μ	\mu	σ	\sigma

τ	<code>\tauau</code>	ω	<code>\omegap</code>	ϱ	<code>\varrho</code>
υ	<code>\upsilon</code>	ϑ	<code>\vartheta</code>	ς	<code>\varsigma</code>
ϕ	<code>\phi</code>	ϵ	<code>\epsilon</code>	φ	<code>\varphi</code>
χ	<code>\chi</code>	κ	<code>\kappa</code>		
ψ	<code>\psi</code>	ϑ	<code>\vartheta</code>		

Upper-Case Ancient Greek Characters (Keyword <code>agreekupper</code>)

Γ	<code>\Heta</code>	ζ	<code>\Stigma</code>	\beth	<code>\varDigamma</code>
\beth	<code>\Sampi</code>	β	<code>\Sho</code>	\daleth	<code>\varKoppa</code>
\digamma	<code>\Digamma</code>	\M	<code>\San</code>		
κ	<code>\Koppa</code>	\Tau	<code>\varSampi</code>		

Lower-Case Ancient Greek Characters (Keyword <code>agreeklower</code>)

γ	<code>\heta</code>	ς	<code>\stigma</code>	ν	<code>\vardigamma</code>
\beth	<code>\sampi</code>	β	<code>\sho</code>	\daleth	<code>\varkoppa</code>
\digamma	<code>\digamma</code>	μ	<code>\san</code>		
κ	<code>\koppa</code>	τ	<code>\varsampi</code>		

Upper-Case Cyrillic Characters (Keyword <code>cyrillicupper</code>)
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А	<code>\cyrA</code>	М	<code>\cyrEm</code>	Ч	<code>\cyrChe</code>
Б	<code>\cyrBe</code>	Н	<code>\cyrEn</code>	ІІ	<code>\cyrSha</code>
В	<code>\cyrVe</code>	О	<code>\cyrO</code>	ІІІ	<code>\cyrShcha</code>
Г	<code>\cyrGhe</code>	П	<code>\cyrPe</code>	҃	<code>\cyrHard</code>
Д	<code>\cyrDe</code>	Р	<code>\cyrEr</code>	Ы	<code>\cyrYeru</code>
Е	<code>\cyrIe</code>	С	<code>\cyrEs</code>	Ь	<code>\cyrSoft</code>
Ж	<code>\cyrZhe</code>	Т	<code>\cyrTe</code>	Э	<code>\cyrE</code>
З	<code>\cyrZe</code>	Ү	<code>\cyrU</code>	Ю	<code>\cyrYu</code>
И	<code>\cyrI</code>	Ф	<code>\cyrEf</code>	Я	<code>\cyrYa</code>
К	<code>\cyrKa</code>	Х	<code>\cyrHa</code>	Ӣ	<code>\cyrvariI</code>
Л	<code>\cyrEl</code>	҃	<code>\cyrTse</code>		

Lower-Case Cyrillic Characters (Keyword <code>cyrilliclower</code>)
--

а	<code>\cyra</code>	м	<code>\cyrem</code>	ч	<code>\cyrche</code>
б	<code>\cyrbе</code>	н	<code>\cyren</code>	ш	<code>\cyrsha</code>
в	<code>\cyrve</code>	o	<code>\cyro</code>	ү	<code>\cyrshcha</code>
г	<code>\cyrghe</code>	n	<code>\cyrpe</code>	҃	<code>\cyrhard</code>
д	<code>\cyrde</code>	р	<code>\cyrer</code>	ы	<code>\cyryeru</code>
е	<code>\cyrie</code>	с	<code>\cyres</code>	ь	<code>\cyrsoft</code>
ж	<code>\cyrzhe</code>	м	<code>\cyrte</code>	ә	<code>\cyre</code>
з	<code>\cyrze</code>	ү	<code>\cyru</code>	ю	<code>\cyryu</code>
и	<code>\cyri</code>	ф	<code>\cyref</code>	я	<code>\cyrya</code>
к	<code>\cyrka</code>	x	<code>\cyrha</code>	Ӣ	<code>\cyrvari</code>
л	<code>\cyrel</code>	҃	<code>\cyrtse</code>		

Hebrew Characters (Keyword <code>hebrew</code>)					
--	--	--	--	--	--

א	\aleph	ׁ	\yod	ׂ	\qof
ב	\beth	ׂ	\kaf	׃	\resh
ג	\gimel	ׄ	\lamed	ׅ	\shin
ד	\daleth	׆	\mem	ׇ	\tav
ה	\he	׈	\nun	׉	\varkaf
ו	\vav	׊	\samekh	׋	\varmem
ז	\zayin	׌	\ayin	׍	\varnun
ח	\het	׏	\pe	׎	\varpe
ט	\tet	ב	\tsadi	׏	\vartsadi

Delimiter Characters (Keyword <code>delimiters</code> ; shown in \big, etc. sizes)					
--	--	--	--	--	--

«««(()»»»	\} (LuaTeX only)	«««{	\fakelangle (LuaTeXonly)
)»»»))		(LuaTeX only))»»»}	\fakerangle (LuaTeXonly)
[[[[[[<<<`	\lguil	«««{{{	\fakellangle (LuaTeXonly)
]]]]]]]	>>>`	\rguil)»»»}}}}	\fakerrangle (LuaTeXonly)
{ {{ { {	\{ (LuaTeX only)	<<<{{{	\llguil	{	\leftbrace
		>>>}}}}	\rrguil	}	\rightbrace

Square Root Characters (Keyword <code>radical</code>)					
--	--	--	--	--	--

$\sqrt{}$ \surd $\sqrt[n]{}$ \sqrt (LuaTeX only)

Big Operator Characters (Keyword <code>bigops</code>)					
--	--	--	--	--	--

\sum_{\prod} \sum \int_{\int} \intop

Extended Big Operators Characters (Keyword <code>extbigops</code>)					
---	--	--	--	--	--

Π	Π	\coprod	⊗	⊗	\bigotimes	fff	fff	\iiint
∨	∨	\bigvee	⊙	⊙	\bigodot	∫	∫	\oint
∧	∧	\bigwedge	□	□	\bigsqcap	∬	∬	\oiint
∩	∩	\bigcap	□	□	\bigsqcup	∬	∬	\oiint
∪	∪	\bigcup	∫	∫	\iint	∯	∯	\oiint
⊕	⊕	\bigoplus						

Basic Math Characters (Keyword symbols)						
.	.	'	\prime	\leq	\leq	\leq
@	@	"	"	\geq	\geq	\geq
#	\#	+	+	\sim	\sim	\sim
\$	\\$	-	-	\approx	\approx	\approx
%	\%	*	*	\simeq	\simeq	\simeq
&	\&	\times	\times	\equiv	\equiv	\equiv
\P	\P	/	/	\cong	\cong	\cong
\S	\S	/	\fractionslash	\mid	\mid	\mid
\pounds	\pounds	\div	\div	\parallel	\parallel	\parallel
		\pm	\pm	!	!	!
\neg	\neg	•	\bullet	?	?	?
\infty	\infty	\dagger	\dag	,	,	(as \mathpunct)
\partial	\partial	\ddagger	\ddag	,	\comma	(as \mathord)
\mathbackslash	\mathbackslash	•	\cdot	:	:	(as \mathrel)
\circ	\degree	\setminus	\setminus	:	\colon	(as \mathord)
\Delta	\increment	=	=	;	;	;
\nabla	\nabla (LuaTeXonly)	<	<	...	\mathellipsis	
'	'	>	>			

LuaTeX-only (!) Operator Characters (Keyword symbols)						
@	@	\bigat	&	\bigand	§	\bigS
#	#	\bighash	+	\bigplus	\times	\bigtimes
\$	\$	\bigdollar	!	\bigp	\div	\bigdiv
%	%	\bigpercent	?	\bigq		

Extended Math Characters (Keyword extsymbols)						
\wp	\wp	\dashv	\dashv	\spadesuit	\wspadesuit	
\Re	\Re	\flat	\flat	\wedge	\wedge	
\Im	\Im	\natural	\natural	\vee	\vee	
\ell	\ell	\sharp	\sharp	\cap	\cap	
\forall	\forall	\clubsuit	\clubsuit	\cup	\cup	
\exists	\exists	\clubsuit	\clubsuit	\sqcap	\sqcap	
\emptyset	\emptyset	\diamondsuit	\diamondsuit	\sqcup	\sqcup	
\nabla	\nabla (X _E T _E)	\heartsuit	\heartsuit	\amalg	\amalg	
\in	\in	\spadesuit	\spadesuit	\wr	\wr	
\ni	\ni	\spadesuit	\spadesuit	\ast	\ast	
\mp	\mp	\clubsuit	\clubsuit	\star	\star	
\angle	\angle	\diamondsuit	\diamondsuit	\diamond	\diamond	
\top	\top	\diamondsuit	\diamondsuit	\cdot	\cdot	
\bot	\bot	\heartsuit	\heartsuit	\varsetminus	\varsetminus	
\vdash	\vdash	\heartsuit	\heartsuit	\oplus	\oplus	

\otimes	<code>\otimes</code>	\approx	<code>\simeq</code>	\nsubseteq	<code>\nsqsubsetneq</code>
\ominus	<code>\ominus</code>	\cong	<code>\cong</code>	\sqsubset	<code>\sqsubsetneq</code>
\oplus	<code>\oplus</code>	\approxeq	<code>\approxeq</code>	\sqsupset	<code>\sqsupsetneq</code>
\oslash	<code>\oslash</code>	\ssim	<code>\ssim</code>	\neq	<code>\neq</code>
\odot	<code>\odot</code>	\seq	<code>\seq</code>	\nl	<code>\nl</code>
\boxplus	<code>\boxplus</code>	\doteq	<code>\doteq</code>	\ng	<code>\ng</code>
\boxtimes	<code>\boxtimes</code>	\coloneq	<code>\coloneq</code>	\nleq	<code>\nleq</code>
\boxminus	<code>\boxminus</code>	\eqcolon	<code>\eqcolon</code>	\ngeq	<code>\ngeq</code>
\cdot	<code>\cdot</code>	\ringeq	<code>\ringeq</code>	\lneq	<code>\lneq</code>
\in	<code>\in</code>	\arceq	<code>\arceq</code>	\gneq	<code>\gneq</code>
\ni	<code>\ni</code>	\wedgeeq	<code>\wedgeeq</code>	\lneqq	<code>\lneqq</code>
\subset	<code>\subset</code>	\veeeq	<code>\veeeq</code>	\gneqq	<code>\gneqq</code>
\supset	<code>\supset</code>	\stareq	<code>\stareq</code>	\ntriangleleft	<code>\ntriangleleft</code>
\subseteq	<code>\subseteq</code>	\triangleeq	<code>\triangleeq</code>	\ntriangleright	<code>\ntriangleright</code>
\supseteq	<code>\supseteq</code>	\defeq	<code>\defeq</code>	\ntrianglelefteq	<code>\ntrianglelefteq</code>
\sqsubset	<code>\sqsubset</code>	\qeq	<code>\qeq</code>	\ntrianglelefteq	<code>\ntrianglelefteq</code>
\sqsupset	<code>\sqsupset</code>	\lsim	<code>\lsim</code>	\nsim	<code>\nsim</code>
\sqsubseteq	<code>\sqsubseteq</code>	\gsim	<code>\gsim</code>	\approx	<code>\approx</code>
\sqsupseteq	<code>\sqsupseteq</code>	\prec	<code>\prec</code>	\nsimeq	<code>\nsimeq</code>
\triangleleft	<code>\triangleleft</code>	\succ	<code>\succ</code>	\nsimeqq	<code>\nsimeqq</code>
\triangleright	<code>\triangleright</code>	\preceq	<code>\preceq</code>	\simneq	<code>\simneq</code>
\trianglelefteq	<code>\trianglelefteq</code>	\succeq	<code>\succeq</code>	\nlsim	<code>\nlsim</code>
\trianglerighteq	<code>\trianglerighteq</code>	\preceqq	<code>\preceqq</code>	\ngsim	<code>\ngsim</code>
\propto	<code>\propto</code>	\succeqq	<code>\succeqq</code>	\lnsim	<code>\lnsim</code>
\bowtie	<code>\bowtie</code>	\precsim	<code>\precsim</code>	\gnsim	<code>\gnsim</code>
\hourglass	<code>\hourglass</code>	\succsim	<code>\succsim</code>	\lnapprox	<code>\lnapprox</code>
\therefore	<code>\therefore</code>	\precapprox	<code>\precapprox</code>	\gnapprox	<code>\gnapprox</code>
\because	<code>\because</code>	\succapprox	<code>\succapprox</code>	\nprec	<code>\nprec</code>
\ratio	<code>\ratio</code>	\precprec	<code>\precprec</code>	\nsucc	<code>\nsucc</code>
\proportion	<code>\proportion</code>	\succsucc	<code>\succsucc</code>	\npreceq	<code>\npreceq</code>
\ll	<code>\ll</code>	\asymp	<code>\asymp</code>	\nsuccceq	<code>\nsuccceq</code>
\gg	<code>\gg</code>	\nin	<code>\nin</code>	\precneq	<code>\precneq</code>
\lll	<code>\lll</code>	\nni	<code>\nni</code>	\succcneq	<code>\succcneq</code>
\ggg	<code>\ggg</code>	\nsubset	<code>\nsubset</code>	\precneqq	<code>\precneqq</code>
\leqq	<code>\leqq</code>	\nsupset	<code>\nsupset</code>	\succcneqq	<code>\succcneqq</code>
\geqq	<code>\geqq</code>	\nsubseteq	<code>\nsubseteq</code>	\precnsim	<code>\precnsim</code>
\lapprox	<code>\lapprox</code>	\nsupseteq	<code>\nsupseteq</code>	\succcnsim	<code>\succcnsim</code>
\gapprox	<code>\gapprox</code>	\subsetsetneq	<code>\subsetsetneq</code>	\precnapprox	<code>\precnapprox</code>
\approx	<code>\approx</code>	\subsetsetneq	<code>\subsetsetneq</code>	\succcnaprox	<code>\succcnaprox</code>
\simeq	<code>\simeq</code>	\supsetneq	<code>\supsetneq</code>	\succcnapprox	<code>\succcnapprox</code>
\eqsim	<code>\eqsim</code>	\nsqsubsetneq	<code>\nsqsubsetneq</code>	\nequiv	<code>\nequiv</code>

Arrow Characters (Keyword arrows)

\rightarrow	<code>\rightarrow</code>	\Rightarrow	<code>\Rightarrow</code>
\rightarrow	<code>\to</code>	\Rightarrow	<code>\Rightarrow</code>

\nRightarrow	<code>\nRightarrow</code>	\Leftarrowtail	<code>\leftarrowtail</code>
\Rrightarrow	<code>\Rrightarrow</code>	\leftarrowplus	<code>\leftarrowplusarrow</code>
\longrightarrow	<code>\longrightarrow</code>	\leftarrowwave	<code>\leftarrowwavearrow</code>
\Longrightarrow	<code>\Longrightarrow</code>	\leftarrowsquig	<code>\leftarrowsquigarrow</code>
\rightarrowbar	<code>\rightbararrow</code>	\longleftarrowsquig	<code>\longleftsquigarrow</code>
\rightarrowmapsto	<code>\rightbararrow</code>	\looparrowleft	<code>\looparrowleft</code>
\Rrightarrowbar	<code>\Rrightarrowbar</code>	\curvearrowleft	<code>\curvearrowleft</code>
\longrightarrowbar	<code>\longrightarrowbar</code>	\circlearrowleft	<code>\circlearrowleft</code>
\rightarrowmapsto	<code>\longmapsto</code>	\twoheadleftarrow	<code>\twoheadleftarrow</code>
\Longrightarrowbar	<code>\Longrightbararrow</code>	\leftarrowtobar	<code>\leftarrowtobar</code>
\hookrightarrow	<code>\hookrightarrow</code>	\leftarrowwhite	<code>\leftarrowwhitearrow</code>
\rightarrowdash	<code>\rightdasharrow</code>	\leftleftarrows	<code>\leftleftarrows</code>
\rightarrowtail	<code>\rightarrowtail</code>	\leftleftleftarrows	<code>\leftleftleftarrows</code>
\oplus	<code>\rightplusarrow</code>	\leftrightarrow	<code>\leftrightarrow</code>
\rightsquigarrow	<code>\rightsquigarrow</code>	\Leftrightarrow	<code>\Leftrightarrow</code>
\rightsquigarrow	<code>\longrightsquigarrow</code>	\nLeftrightarrow	<code>\nLeftrightarrow</code>
\looparrowright	<code>\looparrowright</code>	\longleftrightarrow	<code>\longleftrightarrow</code>
\curvearrowright	<code>\curvearrowright</code>	\Longleftrightarrow	<code>\Longleftrightarrow</code>
\circlearrowright	<code>\circlearrowright</code>	\leftrightwave	<code>\leftrightwavearrow</code>
\twoheadrightarrow	<code>\twoheadrightarrow</code>	\leftrights	<code>\leftrights</code>
\rightarrowtobar	<code>\rightarrowtobar</code>	\leftrightharpoons	<code>\leftrightharpoons</code>
\rightwhitearrow	<code>\rightwhitearrow</code>	\rightarrowtobars	<code>\rightarrowtobars</code>
\rightarrows	<code>\rightarrows</code>	\rightleftarrows	<code>\rightleftarrows</code>
\rightarrows	<code>\rightarrows</code>	\leftrightharpoons	<code>\leftrightharpoons</code>
\leftarrow	<code>\leftarrow</code>	\uparrow	<code>\uparrow</code>
\from	<code>\from</code>	\uparrowuparrow	<code>\uparrowuparrow</code>
\nleftarrow	<code>\nleftarrow</code>	\uparrowupbarrow	<code>\uparrowupbarrow</code>
\Leftarrow	<code>\Leftarrow</code>	\updash	<code>\updasharrow</code>
\nLeftarrow	<code>\nLeftarrow</code>	\upharpoonleft	<code>\upharpoonleft</code>
\Lleftarrow	<code>\Lleftarrow</code>	\upharpoonright	<code>\upharpoonright</code>
\longleftarrow	<code>\longleftarrow</code>	\twoheaduparrow	<code>\twoheaduparrow</code>
\Longleftarrow	<code>\Longleftarrow</code>	\uparrowtobar	<code>\uparrowtobar</code>
\leftbararrow	<code>\leftbararrow</code>	\upwhitearrow	<code>\upwhitearrow</code>
\mapsfrom	<code>\mapsfrom</code>	\upwhitebarrow	<code>\upwhitebarrow</code>
\Leftbararrow	<code>\Leftbararrow</code>	\upuparrows	<code>\upuparrows</code>
\longleftbararrow	<code>\longleftbararrow</code>	\downarrow	<code>\downarrow</code>
\longmapsfrom	<code>\longmapsfrom</code>	\downarrowdownarrow	<code>\downarrowdownarrow</code>
\Longleftbararrow	<code>\Longleftbararrow</code>	\downbarrow	<code>\downbarrow</code>
\hookleftarrow	<code>\hookleftarrow</code>	\downdasharrow	<code>\downdasharrow</code>
\leftdasharrow	<code>\leftdasharrow</code>	\zigzag	<code>\zigzagarrow</code>
\leftharpoonup	<code>\leftharpoonup</code>	\lightning	<code>\lightningboltarrow</code>
\leftharpoondown	<code>\leftharpoondown</code>	\downharpoonleft	<code>\downharpoonleft</code>

\Downarrow	<code>\twoheaddownarrow</code>	\nearrow	<code>\Nearrow</code>
\downarrow	<code>\downarrowarrowtobar</code>	\nwarrow	<code>\nwarrow</code>
\Downarrow	<code>\downwhitearrow</code>	\Nwarrow	<code>\Nwarrow</code>
\DownDownarrow	<code>\downdownarrows</code>	\searrow	<code>\searrow</code>
\UpDownarrow	<code>\updownarrow</code>	\Searrow	<code>\Searrow</code>
\DownUpdownarrow	<code>\Updownarrow</code>	\swarrow	<code>\swarrow</code>
\DownUpdownarrows	<code>\updownarrows</code>	\Swarrow	<code>\Swarrow</code>
\DownUpuparrows	<code>\downuparrows</code>	\nwsearrow	<code>\nwsearrow</code>
\DownUpupharpoons	<code>\updownharpoons</code>	\neswarrow	<code>\neswarrow</code>
\DownDownupharpoons	<code>\downupharpoons</code>	\lrcleararrow	<code>\lrcleararrow</code>
\nearrow	<code>\nearrow</code>	\rcleararrow	<code>\rcleararrow</code>

Blackboard Bold Characters (Keyword `bb`)

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																

Caligraphic Characters (Keyword `cal`)

\mathcal{A}	\mathcal{B}	\mathcal{C}	\mathcal{D}	\mathcal{E}	\mathcal{F}	\mathcal{G}	\mathcal{H}	\mathcal{I}	\mathcal{J}	\mathcal{K}	\mathcal{L}	\mathcal{M}	\mathcal{N}	\mathcal{O}	\mathcal{P}	\mathcal{Q}	\mathcal{R}	\mathcal{S}	\mathcal{T}	\mathcal{U}	\mathcal{V}	\mathcal{W}	\mathcal{X}	\mathcal{Y}	\mathcal{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

Fraktur Characters (Keyword `frak`)

\mathfrak{A}	\mathfrak{B}	\mathfrak{C}	\mathfrak{D}	\mathfrak{E}	\mathfrak{F}	\mathfrak{G}	\mathfrak{H}	\mathfrak{I}	\mathfrak{J}	\mathfrak{K}	\mathfrak{L}	\mathfrak{M}	\mathfrak{N}	\mathfrak{O}	\mathfrak{P}	\mathfrak{Q}	\mathfrak{R}	\mathfrak{S}	\mathfrak{T}	\mathfrak{U}	\mathfrak{V}	\mathfrak{W}	\mathfrak{X}	\mathfrak{Y}	\mathfrak{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

Bold Calligraphic Characters (Keyword `bcal`)

$\mathbf{\mathcal{A}}$	$\mathbf{\mathcal{B}}$	$\mathbf{\mathcal{C}}$	$\mathbf{\mathcal{D}}$	$\mathbf{\mathcal{E}}$	$\mathbf{\mathcal{F}}$	$\mathbf{\mathcal{G}}$	$\mathbf{\mathcal{H}}$	$\mathbf{\mathcal{I}}$	$\mathbf{\mathcal{J}}$	$\mathbf{\mathcal{K}}$	$\mathbf{\mathcal{L}}$	$\mathbf{\mathcal{M}}$	$\mathbf{\mathcal{N}}$	$\mathbf{\mathcal{O}}$	$\mathbf{\mathcal{P}}$	$\mathbf{\mathcal{Q}}$	$\mathbf{\mathcal{R}}$	$\mathbf{\mathcal{S}}$	$\mathbf{\mathcal{T}}$	$\mathbf{\mathcal{U}}$	$\mathbf{\mathcal{V}}$	$\mathbf{\mathcal{W}}$	$\mathbf{\mathcal{X}}$	$\mathbf{\mathcal{Y}}$	$\mathbf{\mathcal{Z}}$
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

Bold Fraktur Characters (Keyword `bfrak`)

$\mathbf{\mathfrak{A}}$	$\mathbf{\mathfrak{B}}$	$\mathbf{\mathfrak{C}}$	$\mathbf{\mathfrak{D}}$	$\mathbf{\mathfrak{E}}$	$\mathbf{\mathfrak{F}}$	$\mathbf{\mathfrak{G}}$	$\mathbf{\mathfrak{H}}$	$\mathbf{\mathfrak{I}}$	$\mathbf{\mathfrak{J}}$	$\mathbf{\mathfrak{K}}$	$\mathbf{\mathfrak{L}}$	$\mathbf{\mathfrak{M}}$	$\mathbf{\mathfrak{N}}$	$\mathbf{\mathfrak{O}}$	$\mathbf{\mathfrak{P}}$	$\mathbf{\mathfrak{Q}}$	$\mathbf{\mathfrak{R}}$	$\mathbf{\mathfrak{S}}$	$\mathbf{\mathfrak{T}}$	$\mathbf{\mathfrak{U}}$	$\mathbf{\mathfrak{V}}$	$\mathbf{\mathfrak{W}}$	$\mathbf{\mathfrak{X}}$	$\mathbf{\mathfrak{Y}}$	$\mathbf{\mathfrak{Z}}$
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