Package mathfont v. 2.2 Symbol List

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

`\usepackage[`⟨*font name*⟩`]{mathfont}`

As of version 2.0, using LuaLaTeX 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 LuaTeX, 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 LaTeX, 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 complile with LuaLaTeX. 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 XeTeX, mathfont will not create large variants of characters, and your unicode math symbols

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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, TeX 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`

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 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	*i*	i	*q*	q
b	b	*j*	j	*r*	r
c	c	*k*	k	*s*	s
d	d	*l*	l	*t*	t
e	e	*m*	m	*u*	u
f	f	*n*	n	*v*	v
g	g	*o*	o	*w*	w
h	h	*p*	p	*x*	x

y	y	$\hbar$	\hbar	$\jmath$	\jmath
z	z	$\imath$	\imath		

Upper-Case Latin Characters (Keyword upper)					
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 diacritics)					
$\acute{a}$	\acute	$\grave{a}$	\grave	$\bar{a}$	\bar
$\H{a}$	\aacute	$\breve{a}$	\breve	$\mathring{a}$	\mathring
$\dot{a}$	\dot	$\hat{a}$	\hat	$\tilde{a}$	\tilde
$\ddot{a}$	\ddot	$\check{a}$	\check		

Arabic Numeral Characters (Keyword digits)					
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 greekupper)					
$\Alpha$	\Alpha	$\Kappa$	\Kappa	$\Tau$	\Tau
$\Beta$	\Beta	Λ	\Lambda	Υ	\Upsilon
Γ	\Gamma	$\Mu$	\Mu	Φ	\Phi
Δ	\Delta	$\Nu$	\Nu	$\Chi$	\Chi
$\Epsilon$	\Epsilon	Ξ	\Xi	Ψ	\Psi
$\Zeta$	\Zeta	$\Omicron$	\Omicron	Ω	\Omega
$\Eta$	\Eta	Π	\Pi	$\varTheta$	\varTheta
Θ	\Theta	$\Rho$	\Rho	$\increment$	\increment
$\Iota$	\Iota	Σ	\Sigma	∇	\nabla

Lower-Case Greek Characters (Keyword greeklower)					
α	\alpha	δ	\delta	η	\eta
β	\beta	ε	\epsilon	θ	\theta
γ	\gamma	ζ	\zeta	ι	\iota

κ	\kappa	σ	\sigma	ϵ	\varepsilon
λ	\lambda	τ	\tau	$\varkappa$	\varkappa
μ	\mu	υ	\upsilon	ϑ	\vartheta
ν	\nu	φ	\phi	ϱ	\varrho
ξ	\xi	χ	\chi	ς	\varsigma
o	\omicron	ψ	\psi	ϕ	\varphi
π	\pi	ω	\omega		
ρ	\rho	$\varbeta$	\varbeta		

Upper-Case Ancient Greek Characters (Keyword `agreekupper`)

Ͱ	\Heta	Ϛ	\Stigma	Ͷ	\varDigamma
Ϡ	\Sampi	Ϸ	\Sho	Ϙ	\varKoppa
Ϝ	\Digamma	Ϻ	\San		
Ϙ	\Koppa	Ϯ	\varSampi		

Lower-Case Ancient Greek Characters (Keyword `agreeklower`)

ͱ	\heta	ϛ	\stigma	ͷ	\vardigamma
ϡ	\sampi	ϸ	\sho	ϙ	\varkoppa
ϝ	\digamma	ϻ	\san		
ϙ	\koppa	ϯ	\varsampi		

Upper-Case Cyrillic Characters (Keyword `cyrillicupper`)

А	\cyrA	М	\cyrEm	Ч	\cyrChe
Б	\cyrBe	Н	\cyrEn	Ш	\cyrSha
В	\cyrVe	О	\cyrO	Щ	\cyrShcha
Г	\cyrGhe	П	\cyrPe	Ъ	\cyrHard
Д	\cyrDe	Р	\cyrEr	Ы	\cyrYeru
Е	\cyrIe	С	\cyrEs	Ь	\cyrSoft
Ж	\cyrZhe	Т	\cyrTe	Э	\cyrE
З	\cyrZe	У	\cyrU	Ю	\cyrYu
И	\cyrI	Ф	\cyrEf	Я	\cyrYa
К	\cyrKa	Х	\cyrHa	Й	\cyrvarI
Л	\cyrEl	Ц	\cyrTse		

Lower-Case Cyrillic Characters (Keyword `cyrilliclower`)

а	\cyra	*з*	\cyrze	*п*	\cyrpe
б	\cyrbe	*и*	\cyri	*р*	\cyrer
в	\cyrve	*к*	\cyrka	*с*	\cyres
г	\cyrghe	*л*	\cyrel	*т*	\cyrte
д	\cyrde	*м*	\cyrem	*у*	\cyru
е	\cyrie	*н*	\cyren	*ф*	\cyref
ж	\cyrzhe	*о*	\cyro	*х*	\cyrha

ц	\cyrtse	ъ	\cyrhard	ю	\cyryu
ч	\cyrche	ы	\cyryeru	я	\cyrya
ш	\cyrsha	ь	\cyrsoft	й	\cyrvari
щ	\cyrshcha	э	\cyre		

Hebrew Characters (Keyword `hebrew`)

א	\aleph	י	\yod	ק	\qof
ב	\beth	כ	\kaf	ר	\resh
ג	\gimel	ל	\lamed	ש	\shin
ד	\daleth	מ	\mem	ת	\tav
ה	\he	נ	\nun	ך	\varkaf
ו	\vav	ס	\samekh	ם	\varmem
ז	\zayin	ע	\ayin	ן	\varnun
ח	\het	פ	\pe	ף	\varpe
ט	\tet	צ	\tsadi	ץ	\vartsadi

Delimiter Characters (Keyword `delimiters`; shown in `\big`, etc. sizes)

$(((((($	(	$\}\}\}\}\}$	\} (LuaTeX only)	$\langle\langle\langle\langle\langle$	\fakelangle (LuaTeXonly)
$)))))$	)	$\|\|\|\|\|$	| (LuaTeX only)	$\rangle\rangle\rangle\rangle\rangle$	\fakerangle (LuaTeXonly)
$[[[[[[$	[	$\lguil$	\lguil	$\lll\lll\lll$	\fakellangle (LuaTeXonly)
$]]]]]]$	]	$\rguil$	\rguil	$\ggg\ggg\ggg$	\fakerrangle (LuaTeXonly)
$\{\{\{\{\{\{$	\{ (LuaTeX only)	$\llguil$	\llguil	{	\leftbrace
		$\rrguil$	\rrguil	}	\rightbrace

Square Root Characters (Keyword `radical`)

$\surd$	\surd	$\sqrt{\ }$	\sqrt (LuaTeX only)

Big Operator Characters (Keyword `bigops`)

$\sum$	$\sum$	\sum	$\int$	$\int$	\intop
$\prod$	$\prod$	\prod			

Extended Big Operators Characters (Keyword `extbigops`)

$\coprod$	$\coprod$	\coprod	$\bigvee$	$\bigvee$	\bigvee	$\bigwedge$	$\bigwedge$	\bigwedge

$\bigcap$	$\bigcap$	\bigcap	$\bigsqcap$	$\bigsqcap$	\bigsqcap	$\oint$	$\oint$	\oint
$\bigcup$	$\bigcup$	\bigcup	$\bigsqcup$	$\bigsqcup$	\bigsqcup	$\oiint$	$\oiint$	\oiint
$\bigoplus$	$\bigoplus$	\bigoplus	$\iint$	$\iint$	\iint	$\oiiint$	$\oiiint$	\oiiint
$\bigotimes$	$\bigotimes$	\bigotimes	$\iiint$	$\iiint$	\iiint			
$\bigodot$	$\bigodot$	\bigodot						

Basic Math Characters (Keyword `symbols`)

.	.	′	\prime	≤	\leq
@	@	″	"	≥	\geq
#	\#	+	+	~	\sim
$	\$	−	-	≈	\approx
%	\%	*	*	≃	\simeq
&	\&	×	\times	≡	\equiv
¶	\P	/	/	≅	\cong
§	\S	/	\fractionslash	|	\mid
£	\pounds	÷	\div	‖	\parallel
|	|	±	\pm	!	!
¬	\neg	•	\bullet	?	?
∞	\infty	†	\dag	,	, (as \mathpunct)
∂	\partial	‡	\ddag	,	\comma (as \mathord)
\	\mathbackslash	•	\cdot	:	: (as \mathrel)
°	\degree	\	\setminus	:	\colon (as \mathord)
Δ	\increment	=	=	;	;
∇	\nabla (LuaTEXonly)	<	<	…	\mathellipsis
′	'	>	>		

LuaTEX-only (!) Operator Characters (Keyword `symbols`)

@	@	\bigat	&	&	\bigand	§	§	\bigS
#	#	\bighash	+	+	\bigplus	×	×	\bigtimes
$	$	\bigdollar	!	!	\bigp	÷	÷	\bigdiv
%	%	\bigpercent	?	?	\bigq			

Extended Math Characters (Keyword `extsymbols`)

℘	\wp	∈	\in	♭	\flat
ℜ	\Re	∋	\ni	♮	\natural
ℑ	\Im	∓	\mp	♯	\sharp
ℓ	\ell	∠	\angle	♣	\bclubsuit
∀	\forall	⊤	\top	♣	\clubsuit
∃	\exists	⊥	\bot	◆	\bdiamondsuit
∅	\emptyset	⊢	\vdash	♥	\bheartsuit
∇	\nabla (XETEX)	⊣	\dashv	♠	\bspadesuit

♠	\spadesuit	⋈	\bowtie	≫	\succsucc
♣	\wclubsuit	⧖	\hourglass	≍	\asymp
◇	\wdiamondsuit	∴	\therefore	∉	\nin
◇	\diamondsuit	∵	\because	∌	\nni
♡	\wheartsuit	∶	\ratio	⊄	\nsubset
♡	\heartsuit	∷	\proportion	⊅	\nsupset
♤	\wspadesuit	≪	\ll	⊈	\nsubseteq
∧	\wedge	≫	\gg	⊉	\nsupseteq
∨	\vee	⋘	\lll	⊊	\subsetneq
∩	\cap	⋙	\ggg	⊋	\supsetneq
∪	\cup	≦̸	\leqq	⫋	\nsqsubseteq
⊓	\sqcap	≧̸	\geqq	⫌	\nsqsupseteq
⊔	\sqcup	≴	\lapprox	⊏̸	\sqsubsetneq
⨿	\amalg	≵	\gapprox	⊐̸	\sqsupsetneq
≀	\wr	≄	\simeq	≠	\neq
*	\ast	≂̸	\eqsim	≮	\nl
⋆	\star	≇	\simeqq		\ng
⋄	\diamond	≇	\cong	≰	\nleq
·	\varcdot	≉	\approxeq	≱	\ngeq
∖	\varsetminus	≋̸	\sssim	≨	\lneq
⊕	\oplus	⩋	\seq	≩	\gneq
⊗	\otimes	≐̸	\doteq	≨	\lneqq
⊖	\ominus	≔	\coloneq	≩	\gneqq
⊜	\odiv	≕	\eqcolon	⋪	\ntriangleleft
⊘	\oslash	≗	\ringeq	⋫	\ntriangleright
⊙	\odot	≘	\arceq	⋬	\ntrianglelefteq
⊞	\sqplus	≙	\wedgeeq	⋭	\ntrianglerighteq
⊠	\sqtimes	≚	\veeeq	≁	\nsim
⊟	\sqminus	≛	\stareq	≉	\napprox
⊡	\sqdot	≜	\triangleeq	≄	\nsimeq
∈	\in	≝	\defeq	≆	\nsimeqq
∋	\ni	≟	\qeq	≆	\simneqq
⊂	\subset	≲	\lsim	≴	\nlsim
⊃	\supset	≳	\gsim	≵	\ngsim
⊆	\subseteq	≺	\prec	≴	\lnsim
⊇	\supseteq	≻	\succ	≵	\gnsim
⊏	\sqsubset	≼	\preceq	⪉	\lnapprox
⊐	\sqsupset	≽	\succeq	⪊	\gnapprox
⊑	\sqsubseteq	≾̸	\preceqq	⊀	\nprec
⊒	\sqsupseteq	≿̸	\succeqq	⊁	\nsucc
◁	\triangleleft	≾	\precsim	⪯̸	\npreceq
▷	\triangleright	≿	\succsim	⪰̸	\nsucceq
⊴	\trianglelefteq	⪷	\precapprox	⊀	\precneq
⊵	\triangleq	⪸	\succapprox	⊁	\succneq
∝	\propto	≺≺	\precprec	⪵	\precneqq

⪶	\succneqq	⪵	\succnsim	⪺	\succnapprox
⪷	\precnsim	⪹	\precnapprox	≢	\nequiv

Arrow Characters (Keyword arrows)			
→	\rightarrow	↤	\mapsfrom
→	\to	⇇	\Leftbararrow
↛	\nrightarrow	⟝	\longleftbararrow
⇒	\Rightarrow	⟝	\longmapsfrom
⇏	\nRightarrow	⟸	\Longleftbararrow
⤇	\Rrightarrow	↩	\hookleftarrow
⟶	\longrightarrow	⇠	\leftdasharrow
⟹	\Longrightarrow	↼	\leftharpoonup
↦	\rightbararrow	↽	\leftharpoondown
↦	\mapsto	↢	\leftarrowtail
⇸	\Rightbararrow	⟴	\leftoplusarrow
⟼	\longrightbararrow	↜	\leftwavearrow
⟼	\longmapsto	⇜	\leftsquigarrow
⟾	\Longrightbararrow	⇜	\longleftsquigarrow
↪	\hookrightarrow	↫	\looparrowleft
⇢	\rightdasharrow	↶	\curvearrowleft
⇀	\rightharpoonup	↺	\circlearrowleft
⇁	\rightharpoondown	↞	\twoheadleftarrow
↣	\rightarrowtail	⇤	\leftarrowtobar
⟴	\rightoplusarrow	⇦	\leftwhitearrow
⇝	\rightwavearrow	⇇	\leftleftarrows
⇝	\rightsquigarrow	⇇	\leftleftleftarrows
⇝	\longrightsquigarrow	↔	\leftrightarrow
↬	\looparrowright	⇔	\Leftrightarrow
↷	\curvearrowright	⇎	\nLeftrightarrow
↻	\circlearrowright	⟷	\longleftrightarrow
↠	\twoheadrightarrow	⟺	\Longleftrightarrow
⇥	\rightarrowtobar	↭	\leftrightwavearrow
⇨	\rightwhitearrow	⇆	\leftrightarrows
⇉	\rightrightarrows	⇋	\leftrightharpoons
⇶	\rightrightrightarrows	↹	\leftrightarrowstobar
←	\leftarrow	⇄	\rightleftarrows
←	\from	⇌	\rightleftharpoons
↚	\nleftarrow	↑	\uparrow
⇐	\Leftarrow	⇑	\Uparrow
⇍	\nLeftarrow	⟰	\Uuparrow
⇚	\Lleftarrow	↥	\upbararrow
⟵	\longleftarrow	⇡	\updasharrow
⟸	\Longleftarrow	↿	\upharpoonleft
↤	\leftbararrow	↾	\upharpoonright

↟	\twoheaduparrow	↕	\updownarrow
⇡	\uparrowtobar	⇳	\Updownarrow
⇧	\upwhitearrow	⇅	\updownarrows
⇪	\upwhitebararrow	⇵	\downuparrows
⇈	\upuparrows	⥮	\updownharpoons
↓	\downarrow	⥯	\downupharpoons
⇓	\Downarrow	↗	\nearrow
⤋	\Ddownarrow	⇗	\Nearrow
↧	\downbararrow	↖	\nwarrow
⇣	\downdasharrow	⇖	\Nwarrow
↯	\zigzagarrow	↘	\searrow
↯	\lightningboltarrow	⇘	\Searrow
⇂	\downharpoonleft	↙	\swarrow
⇃	\downharpoonright	⇙	\Swarrow
↡	\twoheaddownarrow	⤡	\nwsearrow
⤓	\downarrowtobar	⤢	\neswarrow
⇩	\downwhitearrow	↺	\lcirclearrow
⇊	\downdownarrows	↻	\rcirclearrow

Blackboard Bold Characters (Keyword bb)

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

Caligraphic Characters (Keyword cal)

$\mathcal{A}\ \mathcal{B}\ \mathcal{C}\ \mathcal{D}\ \mathcal{E}\ \mathcal{F}\ \mathcal{G}\ \mathcal{H}\ \mathcal{I}\ \mathcal{J}\ \mathcal{K}\ \mathcal{L}\ \mathcal{M}\ \mathcal{N}\ \mathcal{O}\ \mathcal{P}\ \mathcal{Q}\ \mathcal{R}\ \mathcal{S}\ \mathcal{T}\ \mathcal{U}\ \mathcal{V}\ \mathcal{W}\ \mathcal{X}\ \mathcal{Y}\ \mathcal{Z}$
$\mathcal{a}\ \mathcal{b}\ \mathcal{c}\ \mathcal{d}\ \mathcal{e}\ \mathcal{f}\ \mathcal{g}\ \mathcal{h}\ \mathcal{i}\ \mathcal{j}\ \mathcal{k}\ \mathcal{l}\ \mathcal{m}\ \mathcal{n}\ \mathcal{o}\ \mathcal{p}\ \mathcal{q}\ \mathcal{r}\ \mathcal{s}\ \mathcal{t}\ \mathcal{u}\ \mathcal{v}\ \mathcal{w}\ \mathcal{x}\ \mathcal{y}\ \mathcal{z}$

Fraktur Characters (Keyword frak)

$\mathfrak{A}\ \mathfrak{B}\ \mathfrak{C}\ \mathfrak{D}\ \mathfrak{E}\ \mathfrak{F}\ \mathfrak{G}\ \mathfrak{H}\ \mathfrak{I}\ \mathfrak{J}\ \mathfrak{K}\ \mathfrak{L}\ \mathfrak{M}\ \mathfrak{N}\ \mathfrak{O}\ \mathfrak{P}\ \mathfrak{Q}\ \mathfrak{R}\ \mathfrak{S}\ \mathfrak{T}\ \mathfrak{U}\ \mathfrak{V}\ \mathfrak{W}\ \mathfrak{X}\ \mathfrak{Y}\ \mathfrak{Z}$
$\mathfrak{a}\ \mathfrak{b}\ \mathfrak{c}\ \mathfrak{d}\ \mathfrak{e}\ \mathfrak{f}\ \mathfrak{g}\ \mathfrak{h}\ \mathfrak{i}\ \mathfrak{j}\ \mathfrak{k}\ \mathfrak{l}\ \mathfrak{m}\ \mathfrak{n}\ \mathfrak{o}\ \mathfrak{p}\ \mathfrak{q}\ \mathfrak{r}\ \mathfrak{s}\ \mathfrak{t}\ \mathfrak{u}\ \mathfrak{v}\ \mathfrak{w}\ \mathfrak{x}\ \mathfrak{y}\ \mathfrak{z}$

Bold Calligraphic Characters (Keyword bcal)

$\boldsymbol{\mathcal{A}}\ \boldsymbol{\mathcal{B}}\ \boldsymbol{\mathcal{C}}\ \boldsymbol{\mathcal{D}}\ \boldsymbol{\mathcal{E}}\ \boldsymbol{\mathcal{F}}\ \boldsymbol{\mathcal{G}}\ \boldsymbol{\mathcal{H}}\ \boldsymbol{\mathcal{I}}\ \boldsymbol{\mathcal{J}}\ \boldsymbol{\mathcal{K}}\ \boldsymbol{\mathcal{L}}\ \boldsymbol{\mathcal{M}}\ \boldsymbol{\mathcal{N}}\ \boldsymbol{\mathcal{O}}\ \boldsymbol{\mathcal{P}}\ \boldsymbol{\mathcal{Q}}\ \boldsymbol{\mathcal{R}}\ \boldsymbol{\mathcal{S}}\ \boldsymbol{\mathcal{T}}\ \boldsymbol{\mathcal{U}}\ \boldsymbol{\mathcal{V}}\ \boldsymbol{\mathcal{W}}\ \boldsymbol{\mathcal{X}}\ \boldsymbol{\mathcal{Y}}\ \boldsymbol{\mathcal{Z}}$
$\boldsymbol{\mathcal{a}}\ \boldsymbol{\mathcal{b}}\ \boldsymbol{\mathcal{c}}\ \boldsymbol{\mathcal{d}}\ \boldsymbol{\mathcal{e}}\ \boldsymbol{\mathcal{f}}\ \boldsymbol{\mathcal{g}}\ \boldsymbol{\mathcal{h}}\ \boldsymbol{\mathcal{i}}\ \boldsymbol{\mathcal{j}}\ \boldsymbol{\mathcal{k}}\ \boldsymbol{\mathcal{l}}\ \boldsymbol{\mathcal{m}}\ \boldsymbol{\mathcal{n}}\ \boldsymbol{\mathcal{o}}\ \boldsymbol{\mathcal{p}}\ \boldsymbol{\mathcal{q}}\ \boldsymbol{\mathcal{r}}\ \boldsymbol{\mathcal{s}}\ \boldsymbol{\mathcal{t}}\ \boldsymbol{\mathcal{u}}\ \boldsymbol{\mathcal{v}}\ \boldsymbol{\mathcal{w}}\ \boldsymbol{\mathcal{x}}\ \boldsymbol{\mathcal{y}}\ \boldsymbol{\mathcal{z}}$

Bold Fraktur Characters (Keyword bfrak)

$\boldsymbol{\mathfrak{A}}\ \boldsymbol{\mathfrak{B}}\ \boldsymbol{\mathfrak{C}}\ \boldsymbol{\mathfrak{D}}\ \boldsymbol{\mathfrak{E}}\ \boldsymbol{\mathfrak{F}}\ \boldsymbol{\mathfrak{G}}\ \boldsymbol{\mathfrak{H}}\ \boldsymbol{\mathfrak{I}}\ \boldsymbol{\mathfrak{J}}\ \boldsymbol{\mathfrak{K}}\ \boldsymbol{\mathfrak{L}}\ \boldsymbol{\mathfrak{M}}\ \boldsymbol{\mathfrak{N}}\ \boldsymbol{\mathfrak{O}}\ \boldsymbol{\mathfrak{P}}\ \boldsymbol{\mathfrak{Q}}\ \boldsymbol{\mathfrak{R}}\ \boldsymbol{\mathfrak{S}}\ \boldsymbol{\mathfrak{T}}\ \boldsymbol{\mathfrak{U}}\ \boldsymbol{\mathfrak{V}}\ \boldsymbol{\mathfrak{W}}\ \boldsymbol{\mathfrak{X}}\ \boldsymbol{\mathfrak{Y}}\ \boldsymbol{\mathfrak{Z}}$
$\boldsymbol{\mathfrak{a}}\ \boldsymbol{\mathfrak{b}}\ \boldsymbol{\mathfrak{c}}\ \boldsymbol{\mathfrak{d}}\ \boldsymbol{\mathfrak{e}}\ \boldsymbol{\mathfrak{f}}\ \boldsymbol{\mathfrak{g}}\ \boldsymbol{\mathfrak{h}}\ \boldsymbol{\mathfrak{i}}\ \boldsymbol{\mathfrak{j}}\ \boldsymbol{\mathfrak{k}}\ \boldsymbol{\mathfrak{l}}\ \boldsymbol{\mathfrak{m}}\ \boldsymbol{\mathfrak{n}}\ \boldsymbol{\mathfrak{o}}\ \boldsymbol{\mathfrak{p}}\ \boldsymbol{\mathfrak{q}}\ \boldsymbol{\mathfrak{r}}\ \boldsymbol{\mathfrak{s}}\ \boldsymbol{\mathfrak{t}}\ \boldsymbol{\mathfrak{u}}\ \boldsymbol{\mathfrak{v}}\ \boldsymbol{\mathfrak{w}}\ \boldsymbol{\mathfrak{x}}\ \boldsymbol{\mathfrak{y}}\ \boldsymbol{\mathfrak{z}}$