Package mathfont v. 1.6 Symbol List

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

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

Abstract

The mathfont package provides a flexible interface for changing the font of math-mode characters. The package allows the user to specify a default unicode font for each of six basic classes of Latin and Greek characters, and it provides additional support for unicode math and alphanumeric symbols, including punctuation. Crucially, mathfont is compatible with both XeLaTeX and LuaLaTeX, and it provides several font-loading commands that allow the user to change fonts locally or for individual characters within math mode.

The mathfont package acts on some 300 alphanumeric characters and 500 general math symbols, and this document lists all such symbols besides Latin characters and Arabic numerals. The characters are organized by keyword, and when the user calls `\mathfont` on one of the keyword classes below, the package acts on every control sequence listed under that keyword. It changes the math-mode font of the character-commands that already exist in LaTeX, and for the control sequences that do not exist in LaTeX, it defines them to be new characters for use in math mode. Unlike most character-providing packages, mathfont does not provide extra symbols by default, and users can access additional control sequences only once they act `\mathfont` on some keyword-option. Of course, typesetting these symbols depends on having a font that contains them, and most major unicode fonts lack many or most of the symbols in this document. Choose your font wisely! Finally, as stated in the user guide, the `delimiters`, `bigops`, and `\big`⟨*symbol*⟩ (such as `\bigvee`) characters do not in general change size in different mathematical contexts. I hope to address this limitation in future package updates. For documentation of user-level commands, see `mathfont_user_guide.pdf`, and for version history and code implementation, see `mathfont_code.pdf`. Both documentation files are included with the mathfont installation and available on CTAN.

This document does not contain tables for the keywords `upper`, `lower`, and `digits`. The first of these keywords contains all capital Latin letters, and the second contains all lowercase Latin letters as well as the "mathematical i" $\imath$ coded with `\imath` and "mathematical

Acknowledgements: Thanks to Lyric Bingham for her work checking my unicode hex values. Thanks to Herbert Voss and Andreas Zidak for pointing out bugs in previous versions of mathfont.

j" $\jmath$ coded with `\jmath`. The `digits` category contains the digits 0 through 9. Unlike the LaTeX kernel, mathfont declares both `\imath` and `\jmath` as math alphabet characters, so the package's local font-change commands will adjust the font of these two symbols.

Accent Characters (`diacritics`)

Rendered in Baskerville

$\acute{a}$	`\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`		

Upper-Case Greek Characters (`greekupper`)

Rendered in Courier New

$\mathtt{A}$	`\Alpha`	$\mathtt{K}$	`\Kappa`	$\mathtt{T}$	`\Tau`
$\mathtt{B}$	`\Beta`	Λ	`\Lambda`	$\mathtt{Y}$	`\Upsilon`
Γ	`\Gamma`	$\mathtt{M}$	`\Mu`	Φ	`\Phi`
Δ	`\Delta`	$\mathtt{N}$	`\Nu`	$\mathtt{X}$	`\Chi`
$\mathtt{E}$	`\Epsilon`	Ξ	`\Xi`	Ψ	`\Psi`
$\mathtt{Z}$	`\Zeta`	$\mathtt{O}$	`\Omicron`	Ω	`\Omega`
$\mathtt{H}$	`\Eta`	Π	`\Pi`	$\varTheta$	`\varTheta`
Θ	`\Theta`	$\mathtt{P}$	`\Rho`		
$\mathtt{I}$	`\Iota`	Σ	`\Sigma`		

Lower-Case Greek Characters (`greeklower`)

Rendered in Times New Roman

α	`\alpha`	λ	`\lambda`	ϕ	`\phi`
β	`\beta`	μ	`\mu`	χ	`\chi`
γ	`\gamma`	ν	`\nu`	ψ	`\psi`
δ	`\delta`	ξ	`\xi`	ω	`\omega`
ϵ	`\epsilon`	o	`\omicron`	$\varbeta$	`\varbeta`
ζ	`\zeta`	π	`\pi`	ε	`\varepsilon`
η	`\eta`	ρ	`\rho`	ϑ	`\vartheta`
θ	`\theta`	σ	`\sigma`	ϱ	`\varrho`
ι	`\iota`	τ	`\tau`	ς	`\varsigma`
κ	`\kappa`	υ	`\upsilon`	φ	`\varphi`

Upper-Case Ancient Greek Characters (`agreekupper`)

Rendered in Symbola

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

Lower-Case Ancient Greek Characters (agreeklower)

Rendered in Didot Bold

ϑ	\heta	ϛ	\stigma	ͱ	\vardigamma
ϡ	\sampi	ϸ	\sho	ϗ	\varkoppa
ϝ	\digamma	ϻ	\san		
ϙ	\koppa	Ϥ	\varsampi		

Upper-Case Cyrillic Characters (cyrillicupper)

Rendered in EB Garamond

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 (cyrilliclower)

Rendered in Comic Sans MS[1]

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		

Hebrew Characters (hebrew)

Rendered in New Peninim MT

א	\aleph	ד	\daleth	ז	\zayin
ב	\beth	ה	\he	ח	\het
ג	\gimel	ו	\vav	ט	\tet

[1] Yes, you too can now create beautifully spaced mathematics in Comic Sans!

י	\yod	ע	\ayin	ת	\tav
כ	\kaf	פ	\pe	ך	\varkaf
ל	\lamed	צ	\tsadi	ם	\varmem
מ	\mem	ק	\qof	ן	\varnun
נ	\nun	ר	\resh	ף	\varpe
ס	\samekh	ש	\shin	ץ	\vartsadi

Basic Math Characters (symbols)

Rendered in Arial

.	.	′	'	>	>
@	@	″	"	≤	\leq
#	\#[2]	,	\comma[4]	≥	\geq
$	\$[3]	+	+	~	\sim
%	\%	−	-	≈	\approx
&	\&	*	*	≡	\equiv
¶	\P	×	\times	|	\mid
§	\S	⁄	/	∥	\parallel
£	\pounds	÷	\div	:	:
|	|	±	\pm	?	?
¬	\neg	•	\bullet	!	!
∞	\infty	†	\dag	,	,
∂	\partial	‡	\ddag	;	;
\	\mathbackslash	·	\cdot	:	\colon
°	\degree	\	\setminus	…	\mathellipsis
Δ	\increment	=	=		
ℏ	\hbar	<	<		

Extended Math Characters (extsymbols)

Rendered in Symbola

℘	\wp	ℓ	\ell	∅	\emptyset
ℜ	\Re	∀	\forall	∇	\nabla
ℑ	\Im	∃	\exists	∈	\in

[2]When it acts on \#, \%, and \&, mathfont redefines them as robust commands that expand to their usual \char definition in horizontal mode and a math symbol in math mode. This prevents any changes to their font outside of math mode and is how other commands such as \$ or \P function in both math mode and horizontal mode.

[3]Technically, mathfont doesn't redefine \$, \P, \S, \pounds, \dag, or \ddag. The package recodes the character-command that these macros expand to when in math mode.

[4]In addition to the comma and colon punctuation marks, the package defines \comma and \colon. The difference lies in the spacing. TEX treats the comma and colon keystrokes as \mathpunct and \mathrel types respectively. The package codes the \comma and \colon control sequences as \mathord and \mathpunct types respectively, so both control sequence result in less space than the corresponding keystroke. I recommend using \comma to typeset commas in large real numbers and \colon to typeset colon punctuation marks, for example following a function or to indicate a subset specification.

∋	\ni	⊘	\oslash	≅	\simeqq[9]
∓	\mp	⊙	\odot	≊	\approxeq
∠	\angle	⊞	\sqplus	≋	\sssim
⊤	\top	⊠	\sqtimes	≦	\seq
⊥	\bot	⊟	\sqminus	≒	\doteq
⊢	\vdash	⊡	\sqdot	≔	\coloneq
⊣	\dashv	∈	\in	≕	\eqcolon
♭	\flat	∋	\ni	≗	\ringeq
♮	\natural	⊂	\subset	≘	\arceq
♯	\sharp	⊃	\supset	≙	\wedgeeq
𝄫	\fflat	⊆	\subseteq	≚	\veeeq
𝄪	\ssharp	⊇	\supseteq	≛	\stareq
♣	\bclubsuit[5]	⊏	\sqsubset	≜	\triangleeq
♦	\bdiamondsuit	⊐	\sqsupset	≝	\defeq
♥	\bheartsuit	⊑	\sqsubseteq	≟	\qeq
♠	\bspadesuit[6]	⊒	\sqsupseteq	≲	\lsim
♧	\wclubsuit	◁	\triangleleft	≳	\gsim
♢	\wdiamondsuit[7]	▷	\triangleright	≺	\prec
♡	\wheartsuit[8]	⊴	\trianglelefteq	≻	\succ
♤	\wspadesuit	⊵	\trianglerighteq	≼	\preceq
∧	\wedge	∝	\propto	≽	\succeq
∨	\vee	⋈	\bowtie	≾	\preceqq
∩	\cap	⧖	\hourglass	≿	\succeqq
∪	\cup	∴	\therefore	≾	\precsim
⊓	\sqcap	∵	\because	≿	\succsim
⊔	\sqcup	∶	\ratio	≾	\precapprox
⨿	\amalg	∷	\proportion	≿	\succapprox
≀	\wr	≪	\ll	⊀	\precprec
∗	\ast	≫	\gg	⊁	\succsucc
⋆	\star	⋘	\lll	≍	\asymp
⋄	\diamond	⋙	\ggg	∉	\nin
⋅	\varcdot	≦	\leqq	∌	\nni
∖	\varsetminus	≧	\geqq	⊄	\nsubset
⊕	\oplus	≲	\lapprox	⊅	\nsupset
⊗	\otimes	≳	\gapprox	⊈	\nsubseteq
⊖	\ominus	≃	\simeq	⊉	\nsupseteq
⊘	\odiv	≂	\eqsim	⊊	\subsetneq

[5] Also \clubsuit.
[6] Also \spadesuit.
[7] Also \diamondsuit.
[8] Also \heartsuit.
[9] Also \cong.

$\supsetneq$	\supsetneq	$\ntriangleleft$	\ntriangleleft	$\gtrapprox$	\gnapprox
$\nsqsubseteq$	\nsqsubseteq	$\ntriangleright$	\ntriangleright	$\nprec$	\nprec
$\nsqsupseteq$	\nsqsupseteq	$\ntrianglelefteq$	\ntrianglelefteq	$\nsucc$	\nsucc
$\sqsubsetneq$	\sqsubsetneq	$\ntrianglerighteq$	\ntrianglerighteq	$\npreceq$	\npreceq
$\sqsupsetneq$	\sqsupsetneq	$\nsim$	\nsim	$\nsucceq$	\nsucceq
$\neq$	\neq	$\napprox$	\napprox	$\precneq$	\precneq
$\nless$	\nl	$\nsimeq$	\nsimeq	$\succneq$	\succneq
$\ngtr$	\ng	$\nsimeqq$	\nsimeqq	$\precneqq$	\precneqq
$\nleq$	\nleq	$\simneqq$	\simneqq	$\succneqq$	\succneqq
$\ngeq$	\ngeq	$\nlsim$	\nlsim	$\precnsim$	\precnsim
$\lneq$	\lneq	$\ngsim$	\ngsim	$\succnsim$	\succnsim
$\gneq$	\gneq	$\lnsim$	\lnsim	$\precnapprox$	\precnapprox
$\lneqq$	\lneqq	$\gnsim$	\gnsim	$\succnapprox$	\succnapprox
$\gneqq$	\gneqq	$\lnapprox$	\lnapprox	$\nequiv$	\nequiv

Delimiter Characters (`delimiters`)

Rendered in Times New Roman

(	(	[	[	{	\leftbrace
)	)	]	]	}	\rightbrace

Arrow Characters (`arrows`)

Rendered in STIXGeneral

$\rightarrow$	\rightarrow[10]	$\rightarrowtail$	\rightarrowtail
$\nrightarrow$	\nrightarrow	$\rightwavearrow$	\rightwavearrow
$\Rightarrow$	\Rightarrow	$\rightsquigarrow$	\rightsquigarrow
$\nRightarrow$	\nRightarrow	$\longrightsquigarrow$	\longrightsquigarrow
$\Rrightarrow$	\Rrightarrow	$\looparrowright$	\looparrowright
$\longrightarrow$	\longrightarrow	$\curvearrowright$	\curvearrowright
$\Longrightarrow$	\Longrightarrow	$\circlearrowright$	\circlearrowright
$\mapsto$	\rightbararrow[11]	$\twoheadrightarrow$	\twoheadrightarrow
$\Rightbararrow$	\Rightbararrow	$\rightarrowtobar$	\rightarrowtobar
$\longmapsto$	\longrightbararrow[12]	$\rightwhitearrow$	\rightwhitearrow
$\Longrightbararrow$	\Longrightbararrow	$\rightrightarrows$	\rightrightarrows
$\hookrightarrow$	\hookrightarrow	$\rightrightrightarrows$	\rightrightrightarrows
$\dashrightarrow$	\rightdasharrow	$\leftarrow$	\leftarrow[13]
$\rightharpoonup$	\rightharpoonup	$\nleftarrow$	\nleftarrow
$\rightharpoondown$	\rightharpoondown	$\Leftarrow$	\Leftarrow
$\rightarrowtail$	\rightarrowtail	$\nLeftarrow$	\nLeftarrow

[10] Also `\to`.
[11] Also `\mapsto`.
[12] Also `\longmapsto`.
[13] Also `\from`.

⇚ \Lleftarrow
⟵ \longleftarrow
⟸ \Longleftarrow
↤ \leftbararrow[14]
⇤ \Leftbararrow
⟻ \longleftbararrow[15]
⟽ \Longleftbararrow
↩ \hookleftarrow
⇠ \leftdasharrow
↼ \leftharpoonup
⇁ \leftharpoondown
↢ \leftarrowtail
⟴ \leftoplusarrow
↜ \leftwavearrow
⇜ \leftsquigarrow
⇜ \longleftsquigarrow
↫ \looparrowleft
↶ \curvearrowleft
↺ \circlearrowleft
↞ \twoheadleftarrow
⇤ \leftarrowtobar
⇦ \leftwhitearrow
⇇ \leftleftarrows
⇇ \leftleftleftarrows
↔ \leftrightarrow
⇔ \Leftrightarrow
⇎ \nLeftrightarrow
⟷ \longleftrightarrow
⟺ \Longleftrightarrow
↭ \leftrightwavearrow
⇆ \leftrightarrows
⇋ \leftrightharpoons
↹ \leftrightarrowstobar
⇄ \rightleftarrows
⇌ \rightleftharpoons
↑ \uparrow
⇑ \Uparrow
⟰ \Uuparrow
↥ \upbararrow
⇡ \updasharrow
↿ \upharpoonleft
↾ \upharpoonright
↟ \twoheaduparrow
⤒ \uparrowtobar
⇧ \upwhitearrow
⇪ \upwhitebararrow
⇈ \upuparrows
↓ \downarrow
⇓ \Downarrow
⟱ \Ddownarrow
↧ \downbararrow
⇣ \downdasharrow
↯ \zigzagarrow
⇂ \downharpoonleft
⇃ \downharpoonright
↡ \twoheaddownarrow
⤓ \downarrowtobar
⇩ \downwhitearrow
⇊ \downdownarrows
↕ \updownarrow
⇳ \Updownarrow
⇅ \updownarrows
⇵ \downuparrows
⥮ \updownharpoons
⥯ \downupharpoons
↗ \nearrow
⇗ \Nearrow
↖ \nwarrow
⇖ \Nwarrow
↘ \searrow
⇘ \Searrow
↙ \swarrow
⇙ \Swarrow
⤡ \nwsearrow
⤢ \neswarrow
↺ \lcirclearrow
↻ \rcirclearrow

[14] Also \mapsfrom.
[15] Also \longmapsfrom.

Big Operator Characters (bigops)

Rendered in Times New Roman

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

Extended Big Operators Characters (extbigops)

Rendered in STIXGeneral

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

Blackboard Bold Characters (bb)

Rendered in Symbola and Accessed with \mathbb

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

Calligraphic Characters (cal)

Rendered in Symbola and Accessed with \mathcal

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

Fraktur Characters (frak)

Rendered in Symbola and Accessed with \mathfrak

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

Bold Calligraphic Characters (bcal)

Rendered in Symbola and Accessed with \mathbcal

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

Bold Fraktur Characters (bfrak)

Rendered in Symbola and Accessed with \mathbfrak

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