

The LibertinusT₁ Math Package

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This package is a L^AT_EX math package to accompany the L^AT_EX Libertine text package, serving as an alternative to newtxmath with the libertine option. Both packages use the Greek and Roman letters from Libertine, but LibertinusT₁Math symbols are mostly taken from the LibertinusMath font which extends and corrects Libertine, while newtxmath uses symbols matching Times in weight and size, and so are a bit heavier and larger. I've changed a number of glyphs from LibertinusMath and added dozens of new glyphs. Like LibertinusMath, LibertinusT₁Math does not contain calligraphic, script or gothic alphabets. The package sets \mathcal to the (unscaled) STIX calligraphic font and \mathbb to the LibertinusT₁Math double-struck alphabet. The mathalfa package (loaded AFTER libertinust1math) offers a convenient way to change these default choices and to set the script and gothic alphabets. See the sample invocation below, which assumes you have mathalfa version 1.08 (March 2016) or higher.

PACKAGE OPTIONS:

- lcgreekalpha makes lower-case Greek letters be of type mathalpha rather than mathord, forcing them to respond to alphabet changing commands such as \mathnormal, \mathrm, \mathit and \mathst.
- upint changes the style of integrals from the default *slanted* to *upright*.
- frenchmath changes the math style to use upright Greek and Roman capital letters rather than math italic shapes.
- slantedGreek makes uppercase Greek math letters slanted.
- uprightGreek makes uppercase Greek math letters upright. This is the default.

There is no scaled option, as the scale is normally set to match that in libertine by means of a macro in that package: \LinuxLibertineT@scale. If you use libertinust1math with a font package other than libertine, you can adjust the scale of libertinust1math with, e.g.,

```
\makeatletter  
\newcommand*{\LinuxLibertineT@scale}{1.03}  
\makeatother
```

SAMPLE INVOCATION:

```
\usepackage[sb]{libertine}  
\usepackage[T1]{fontenc}  
\usepackage{textcomp}  
\usepackage[varqu,varl]{zi4}% inconsolata for mono, not LibertineMono  
\usepackage{amsthm} % libertinust1math loads amsmath  
\usepackage{libertinust1math} % slanted integrals, by default  
\usepackage[cal=stix,scr=boondoxo,bb=boodox]{mathalfa}  
%If you want to use LibertinusT1 bb, omit bb=boodox
```

SOME THINGS TO NOTE:

- The amsmath package is loaded, if necessary, by libertinust1math. The package depends on a number of its features and improvements to math typesetting.

- There are no bold symbols in LibertinusMath, but there are bold Roman and Greek letters, and the same is true of LibertinusT1Math.
- The italic letter v (v) in LibertinusMath is easily confused with Greek ν (ν), so the math italic letter v is set to v , and similarly in the bold math version.
- The layout of the type1 math fonts follows STIX to some extent, as does the sty file, though the content of this package is much less rich.
- Dotlessi and dotlessj are available in four math styles—mathit, mathrm, mathbf and mathbfseries. For example:

Macro	Result
$\backslash imath$	i
$\backslash mathrm{\imath}$	i
$\backslash mathbf{\imath}$	\mathbf{i}
$\backslash mathbfseries{\imath}$	\mathbf{i}

- There are Greek alphabets in upright and italic shapes, regular and bold weights. Upright Greek letters have names like α (and \upalpha) while the italic forms have names like α . According to the options you set, α and so on are \let to the appropriate choice, but you may always use the underlying forms if you wish to use both upright and italic forms in your document.
- Uppercase Greek letters are of type `mathalpha`, so when you write $\mathit{\Gamma}$, you'll get Γ . However, unless you chose the option `lcgreekalpha`, $\mathrm{\beta}$ would produce β , as it is of type `mathord` by default.
- There is an upright partial derivative symbol named \uppartial that typesets as ∂ , for those who wish to follow ISO rules.
- There are (as of version 1.0.6) macros for mathematical sans serif: `mathsf`, `mathsfseries` (italic sans) and `mathbfseries` (bold sans.)

The next pages show the font tables for LibertinusT1Math. If you see an unfamiliar symbol and wish to learn its L^AT_EX name, get the L^AT_EX name of the font (e.g., operators, letters, symbols, largesymbols) and the hex location of the glyph (e.g., "FF is hex notation for 255) and search `libertinust1math.sty` by hex number.

libertinust1-mathrm (operators):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Υ_7	"0x
'oix	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
'o2x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
'o3x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
'o4x	ψ_{32}	ω_{33}	ε_{34}	ϑ_{35}	$\bar{\omega}_{36}$	ϱ_{37}	ς_{38}	φ_{39}	"2x
'o5x	∇_{40}	∂_{41}	$-_{42}$	$+_ {43}$	\pm_{44}	\mp_{45}	$(_{46}$	$)_{47}$	
'o6x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
'o7x	8_{56}	9_{57}	\vdots_{58}	$\ddot{\cdot}_{59}$	\ast_{60}	\equiv_{61}	$\$_{62}$	$?_{63}$	
'iox	$!_{64}$	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
'iix	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
'i2x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
'i3x	X_{88}	Y_{89}	Z_{90}	$[_{91}$	\backslash_{92}	$]_{93}$	$\{_{94}$	$/_{95}$	
'i4x	$\} _{96}$	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
'i5x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
'i6x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
'i7x	x_{120}	y_{121}	z_{122}	1_{123}	j_{124}	$\#_{125}$	$\%_{126}$	$,$	
'i20x	$\grave{1}_{128}$	$\acute{1}_{129}$	$\hat{1}_{130}$	$\tilde{1}_{131}$	$\bar{1}_{132}$	$\breve{1}_{133}$	$\dot{1}_{134}$	\cdots_{135}	"8x
'i21x	$^{\circ}_{136}$	$^{\circ}_{137}$	$^{\vee}_{138}$	$^{\diamond}_{139}$	$^{\circ}_{140}$	$^{\prime}_{141}$	$^{\gamma}_{142}$	$^{\leftarrow}_{143}$	
'i22x	\rightarrow_{144}	\leftarrow_{145}	\rightarrow_{146}	\cdots_{147}	\cdots_{148}	\leftrightarrow_{149}	$\overline{\downarrow}_{150}$	$\overline{\uparrow}_{151}$	"9x
'i23x	$*$	$\&_{152}$	$@_{153}$	\neg_{154}	\neg_{155}	\star_{156}	\times_{157}	\leq_{158}	\div_{159}
'i24x	Z_{160}	\not_{161}	\exists_{162}	\dagger_{163}	\ddagger_{164}	\bullet_{165}	\ldots_{166}	\ldots_{167}	"Ax
'i25x	\not_{168}	$\text{/\text{}}_{169}$	/\text/_{170}	$\text{\textbackslash}_{171}$	$\text{\textbackslash\textbackslash}_{172}$	$\text{\textbackslash\textbackslash\textbackslash}_{173}$	$\text{\textbackslash\textbackslash\textbackslash\textbackslash}_{174}$!!_{175}	
'i26x	\blacksquare_{176}	\not_{177}	??_{178}	179	/\text/_{180}	$\text{\textbackslash}_{181}$	182	183	"Bx
'i27x	\times_{184}	185	Σ_{186}	\mho_{187}	ι_{188}	\AA_{189}	\sharp_{190}	\mathcal{O}_{191}	
'i30x	\daleth_{192}	\perp_{193}	λ_{194}	195	\wp_{196}	\forall_{197}	\mathbb{C}_{198}	\exists_{199}	"Cx
'i31x	\exists_{200}	\emptyset_{201}	Δ_{202}	\mathbb{E}_{203}	\mathbb{E}_{204}	\mathbb{E}_{205}	\exists_{206}	\mathbb{D}_{207}	
'i32x	\exists_{208}	\blacksquare_{209}	$\dot{+}_{210}$	\geq_{211}	\swarrow_{212}	\circ_{213}	\bullet_{214}	∞_{215}	"Dx
'i33x	∞_{216}	\llcorner_{217}	\angle_{218}	$\not\angle_{219}$	$\not\angle_{220}$	\parallel_{221}	$\not\parallel_{222}$	\parallel_{223}	
'i34x	\parallel_{224}	\wedge_{225}	\vee_{226}	\cap_{227}	\cup_{228}	\dots_{229}	\dots_{230}	\emptyset_{231}	"Ex
'i35x	\dots_{232}	\dashv_{233}	\dashv_{234}	\dashv_{235}	\approx_{236}	\sim_{237}	\sim_{238}	\bowtie_{239}	
'i36x	\sim_{240}	\wr_{241}	$\not\wr_{242}$	\approx_{243}	\simeq_{244}	\neq_{245}	\cong_{246}	\cong_{247}	"Fx
'i37x	$\not\equiv_{248}$	\approx_{249}	$\not\equiv_{250}$	\cong_{251}	\approx_{252}	\cong_{253}	\mathcal{K}_{254}	\approx_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathrm (bold-operators):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	Γ_o	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Υ_7	"0x
'o1x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
'o2x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
'o3x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
'o4x	ψ_{32}	ω_{33}	ε_{34}	ϑ_{35}	ϖ_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
'o5x	∇_{40}	∂_{41}	$-_{42}$	$+_ {43}$	\pm_{44}	\mp_{45}	$(_{46}$	$)_{47}$	
'o6x	$\mathbf{0}_{48}$	$\mathbf{1}_{49}$	$\mathbf{2}_{50}$	$\mathbf{3}_{51}$	$\mathbf{4}_{52}$	$\mathbf{5}_{53}$	$\mathbf{6}_{54}$	$\mathbf{7}_{55}$	"3x
'o7x	$\mathbf{8}_{56}$	$\mathbf{9}_{57}$	\vdots_{58}	$\ddot{\cdot}_{59}$	$*_{60}$	$=_{61}$	$\$_{62}$	$?_{63}$	
'iox	$!_{64}$	\mathbf{A}_{65}	\mathbf{B}_{66}	\mathbf{C}_{67}	\mathbf{D}_{68}	\mathbf{E}_{69}	\mathbf{F}_{70}	\mathbf{G}_{71}	"4x
'i1x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
'i2x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
'i3x	X_{88}	Y_{89}	Z_{90}	$[_{91}$	\backslash_{92}	$]_{93}$	$\{_{94}$	$/_{95}$	
'i4x	$\} _{96}$	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
'i5x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
'i6x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
'i7x	x_{120}	y_{121}	z_{122}	l_{123}	J_{124}	$\#_{125}$	$\%_{126}$	$,$	
'i20x	$^{'128}$	$^{'}129$	$^{\wedge}130$	$^{\sim}131$	$^{\sim}132$	$^{\vee}133$	$^{\cdot}134$	$^{..}135$	"8x
'i21x	$^{'}136$	$^{'}137$	$^{\circ}138$	$^{\vee}139$	$^{\downarrow}140$	$^{\uparrow}141$	$^{\leftarrow}142$	$^{\rightarrow}143$	
'i22x	\rightarrow_{144}	\leftarrow_{145}	\rightarrow_{146}	\cdots_{147}	$\cdots\cdots_{148}$	\leftrightarrow_{149}	\overleftarrow{l}_{150}	\overleftarrow{l}_{151}	"9x
'i23x	$^{*}152$	$\&_{153}$	$@_{154}$	\neg_{155}	\star_{156}	\times_{157}	\leq_{158}	\div_{159}	
'i24x	Z_{160}	\not{b}_1	\exists_{162}	\dagger_{163}	\ddagger_{164}	\bullet_{165}	\ldots_{166}	$\ldots\ldots_{167}$	"Ax
'i25x	\not{t}_{168}	\not{m}_{169}	$\not{m}{m}_{170}$	\not{v}_{171}	\not{w}_{172}	$\not{w}{w}_{173}$	\not{a}_{174}	$\not{a}{a}_{175}$	
'i26x	$\not{=}_{176}$	$\not{/}_{177}$	$\not{?}_{178}$	$\not{=}_{179}$	$\not{m}{m}_{180}$	$\not{=}_{181}$	$\not{=}_{182}$	$\not{=}_{183}$	"Bx
'i27x	$\not{\approx}_{184}$	$\not{=}_{185}$	\not{E}_{186}	\not{O}_{187}	$\not{=}_{188}$	\not{A}_{189}	\not{E}_{190}	\not{O}_{191}	
'i30x	\not{T}_{192}	\not{L}_{193}	$\not{\lambda}_{194}$	$\not{=}_{195}$	$\not{\wp}_{196}$	\not{V}_{197}	\not{C}_{198}	$\not{\exists}_{199}$	"Cx
'i31x	\not{A}_{200}	$\not{\emptyset}_{201}$	$\not{\Delta}_{202}$	$\not{\epsilon}_{203}$	$\not{\epsilon}_{204}$	$\not{\epsilon}_{205}$	$\not{\exists}_{206}$	$\not{\mathcal{D}}_{207}$	
'i32x	$\not{\exists}_{208}$	$\not{\blacksquare}_{209}$	$\dot{+}_{210}$	\geq_{211}	\backslash_{212}	\circ_{213}	\bullet_{214}	α_{215}	"Dx
'i33x	$\not{\infty}_{216}$	$\not{\sqsubset}_{217}$	$\not{\angle}_{218}$	$\not{\triangleleft}_{219}$	$\not{\triangleleft}_{220}$	$\not{ }_{221}$	$\not{ }_{222}$	$\not{ }_{223}$	
'i34x	$\not{\parallel}_{224}$	$\not{\wedge}_{225}$	$\not{\vee}_{226}$	$\not{\cap}_{227}$	$\not{\cup}_{228}$	$\not{\cup}_{229}$	$\not{\cup}_{230}$	$\not{\emptyset}_{231}$	"Ex
'i35x	$\not{:}_{232}$	$\not{\div}_{233}$	$\not{-}_{234}$	$\not{:}_{235}$	$\not{\approx}_{236}$	$\not{\sim}_{237}$	$\not{\sim}_{238}$	$\not{\infty}_{239}$	
'i36x	$\not{\sim}_{240}$	$\not{\wr}_{241}$	$\not{\neq}_{242}$	$\not{\approx}_{243}$	$\not{\simeq}_{244}$	$\not{\neq}_{245}$	$\not{\simeq}_{246}$	$\not{\cong}_{247}$	"Fx
'i37x	$\not{\neq}_{248}$	$\not{\approx}_{249}$	$\not{\neq}_{250}$	$\not{\cong}_{251}$	$\not{\approx}_{252}$	$\not{\cong}_{253}$	$\not{\cong}_{254}$	$\not{\approx}_{255}$	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathit (letters):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
'o1x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
'o2x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
'o3x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
'o4x	ψ_{32}	ω_{33}	ε_{34}	ϑ_{35}	ϖ_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
'o5x	∇_{40}	∂_{41}	\aleph_{42}	\beth_{43}	\beth_{44}	\daleth_{45}	\triangleright_{46}	\triangleleft_{47}	
'o6x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
'o7x	8_{56}	9_{57}	$.58$	$,59$	$<_{60}$	\hbar_{61}	$>_{62}$	\star_{63}	
'1ox	$\not{=}_{64}$	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
'11x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
'12x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
'13x	X_{88}	Y_{89}	Z_{90}	\flat_{91}	\natural_{92}	\sharp_{93}	\smile_{94}	\frown_{95}	
'14x	\hbar_{96}	a_{107}	b_{108}	c_{109}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
'15x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
'16x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
'17x	x_{120}	y_{121}	z_{122}	l_{123}	j_{124}	\geq_{125}	\ll_{126}	\curvearrowright_{127}	
'20x	$^1_{128}$	$^2_{129}$	$^3_{130}$	$^4_{131}$	$^5_{132}$	$^6_{133}$	$^7_{134}$	$^{..}_{135}$	"8x
'21x	$^9_{136}$	$^{\circ}_{137}$	$^{\vee}_{138}$	$^{\diamond}_{139}$	$^{\triangleleft}_{140}$	$^{\triangleright}_{141}$	$^{\curvearrowleft}_{142}$	$^{\curvearrowright}_{143}$	
'22x	$^{-}_{144}$	\leftarrow_{145}	\rightarrow_{146}	\cdots_{147}	$\cdots\cdots_{148}$	\leftrightarrow_{149}	$\overline{\sqcup}_{150}$	$\overline{\sqcap}_{151}$	"9x
'23x	$^{*}_{152}$	$-_{153}$	$^{\wedge}_{154}$	\sim_{155}	\vee_{156}	\wedge_{157}	\sim_{158}	\curlyvee_{159}	
'24x	$\widehat{-}_{160}$	$\widetilde{-}_{161}$	$\widecheck{-}_{162}$	$\widehat{\wedge}_{163}$	$\widetilde{\wedge}_{164}$	$\widecheck{\wedge}_{165}$	$\widehat{\wedge\wedge}_{166}$	$\widetilde{\wedge\wedge}_{167}$	"Ax
'25x	$\widehat{\wedge\wedge}_{168}$	$\widetilde{\wedge\wedge}_{169}$	$\widecheck{\wedge\wedge}_{170}$	$\widehat{\sqcup}_{171}$	$\widetilde{\sqcup}_{172}$	$\widecheck{\sqcup}_{173}$	$\widehat{\sqcup\sqcup}_{174}$	$\widetilde{\sqcup\sqcup}_{175}$	
'26x	$\widehat{\sqcup\sqcup}_{176}$	$\widetilde{\sqcup\sqcup}_{177}$	$\widecheck{\sqcup\sqcup}_{178}$	$\widehat{\sqcap}_{179}$	$\widetilde{\sqcap}_{180}$	$\widecheck{\sqcap}_{181}$	$\widehat{\sqcap\sqcap}_{182}$	$\widetilde{\sqcap\sqcap}_{183}$	"Bx
'27x	\gg_{184}	\flat_{185}	$\not\star_{186}$	$\not\star_{187}$	$\not\star_{188}$	$\not\star_{189}$	$\not\star_{190}$	\lesssim_{191}	
'30x	\gtrless_{192}	$\not\leq_{193}$	$\not\geq_{194}$	\gtrless_{195}	\gtrless_{196}	$\not\leq_{197}$	$\not\geq_{198}$	\prec_{199}	"Cx
'31x	\succ_{200}	\preccurlyeq_{201}	\succcurlyeq_{202}	\preccurlyeq_{203}	\succcurlyeq_{204}	$\not\prec_{205}$	$\not\succ_{206}$	\subset_{207}	
'32x	\supset_{208}	$\not\subset_{209}$	$\not\supset_{210}$	\subseteq_{211}	\supseteq_{212}	$\not\subseteq_{213}$	$\not\supseteq_{214}$	\subseteq_{215}	"Dx
'33x	$\not\supseteq_{216}$	$\not\subseteq_{217}$	$\not\supseteq_{218}$	$\not\subseteq_{219}$	\subseteq_{220}	\supseteq_{221}	\subseteq_{222}	\supseteq_{223}	
'34x	\sqcap_{224}	\sqcup_{225}	\oplus_{226}	\ominus_{227}	\otimes_{228}	\oslash_{229}	\odot_{230}	\odot_{231}	"Ex
'35x	\otimes_{232}	\ominus_{233}	\oplus_{234}	\boxplus_{235}	\boxminus_{236}	\boxtimes_{237}	\boxdot_{238}	\vdash_{239}	
'36x	\dashv_{240}	\top_{241}	\perp_{242}	\vdash_{243}	\vdash_{244}	\vdash_{245}	\vdash_{246}	\vdash_{247}	"Fx
'37x	\Vdash_{248}	\Vdash_{249}	\Vdash_{250}	\Vdash_{251}	\Vdash_{252}	\Vdash_{253}	\Vdash_{254}	\Vdash_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathit-bold (bold-letters):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
'o1x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
'o2x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
'o3x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
'o4x	ψ_{32}	ω_{33}	ε_{34}	ϑ_{35}	ϖ_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
'o5x	∇_{40}	∂_{41}	\aleph_{42}	\beth_{43}	λ_{44}	\daleth_{45}	\triangleright_{46}	\triangleleft_{47}	
'o6x	$\mathbf{0}_{48}$	$\mathbf{1}_{49}$	$\mathbf{2}_{50}$	$\mathbf{3}_{51}$	$\mathbf{4}_{52}$	$\mathbf{5}_{53}$	$\mathbf{6}_{54}$	$\mathbf{7}_{55}$	"3x
'o7x	$\mathbf{8}_{56}$	$\mathbf{9}_{57}$	\cdot_{58}	$,_{59}$	$<_{60}$	\hbar_{61}	$>_{62}$	\star_{63}	
'iox	\mathcal{A}_{65}	\mathcal{B}_{66}	\mathcal{C}_{67}	\mathcal{D}_{68}	\mathcal{E}_{69}	\mathcal{F}_{70}	\mathcal{G}_{71}		"4x
'iix	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
'i2x	P_{80}	Q_{81}	R_{82}	S_{83}	s_{84}	U_{85}	V_{86}	W_{87}	"5x
'i3x	X_{88}	Y_{89}	Z_{90}	b_{91}	\mathfrak{b}_{92}	\sharp_{93}	\smile_{94}	\frown_{95}	
'i4x	\hbar_{96}	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
'i5x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
'i6x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
'i7x	x_{120}	y_{121}	z_{122}	\mathbf{l}_{123}	J_{124}	\geq_{125}	\ll_{126}	\smile_{127}	
'i20x	\cdot_{128}	\cdot_{129}	\wedge_{130}	\sim_{131}	\neg_{132}	\vee_{133}	\cdot_{134}	\cdots_{135}	"8x
'i21x	\circ_{136}	\circ_{137}	\vee_{138}	\circ_{139}	\circ_{140}	\circ_{141}	\neg_{142}	\neg_{143}	
'i22x	\rightarrow_{144}	\leftarrow_{145}	\rightarrow_{146}	\cdots_{147}	\cdots_{148}	\leftrightarrow_{149}	\vdash_{150}	\vdash_{151}	"9x
'i23x	$*$ ₁₅₂	$-$ ₁₅₃	\wedge ₁₅₄	\sim ₁₅₅	\vee ₁₅₆	\wedge ₁₅₇	\sim ₁₅₈	\vee ₁₅₉	
'i24x	$\widehat{}_{160}$	$\widetilde{}_{161}$	$\widecheck{}_{162}$	$\widehat{}_{163}$	$\widecheck{}_{164}$	$\widecheck{}_{165}$	$\widehat{}_{166}$	$\widecheck{}_{167}$	"Ax
'i25x	$\overline{}_{168}$	$\overbrace{}_{169}$	$\overbrace{}_{170}$	$\overbrace{}_{171}$	$\overbrace{}_{172}$	$\overbrace{}_{173}$	$\overbrace{}_{174}$	$\overbrace{}_{175}$	
'i26x	$\overbrace{}_{176}$	$\overbrace{}_{177}$	$\overbrace{}_{178}$	$\overbrace{}_{179}$	$\overbrace{}_{180}$	$\overbrace{}_{181}$	$\overbrace{}_{182}$	$\overbrace{}_{183}$	"Bx
'i27x	\gg_{184}	\flat_{185}	\neq_{186}	\neq_{187}	\neq_{188}	\neq_{189}	\neq_{190}	\lesssim_{191}	
'i30x	\gtrless_{192}	$\not\approx_{193}$	$\not\approx_{194}$	\gtrless_{195}	\gtrless_{196}	$\not\approx_{197}$	$\not\approx_{198}$	\prec_{199}	"Cx
'i31x	\gtrless_{200}	\lessgtr_{201}	\gtrless_{202}	\gtrless_{203}	\gtrless_{204}	$\not\approx_{205}$	$\not\approx_{206}$	\subset_{207}	
'i32x	\supset_{208}	$\not\subset_{209}$	$\not\supset_{210}$	\subseteq_{211}	\supseteq_{212}	$\not\subseteq_{213}$	$\not\supseteq_{214}$	\subseteq_{215}	"Dx
'i33x	\supseteq_{216}	\cup_{217}	\cup_{218}	\cup_{219}	\sqsubset_{220}	\sqsupset_{221}	\sqsubset_{222}	\sqsupset_{223}	
'i34x	\sqcap_{224}	\sqcup_{225}	\oplus_{226}	\ominus_{227}	\otimes_{228}	\oslash_{229}	\odot_{230}	\oslash_{231}	"Ex
'i35x	\odot_{232}	\ominus_{233}	\ominus_{234}	\boxplus_{235}	\boxminus_{236}	\boxtimes_{237}	\boxdot_{238}	\vdash_{239}	
'i36x	\dashv_{240}	\top_{241}	\perp_{242}	\vdash_{243}	\models_{244}	\models_{245}	\Vdash_{246}	\Vdash_{247}	"Fx
'i37x	\Vdash_{248}	\nvdash_{249}	\nvDash_{250}	\nVdash_{251}	\nvDash_{252}	\vdash_{253}	\models_{254}	\trianglelefteq_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathsym (symbols):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	\cong_0	\bowtie_1	\bowtie_2	\int_3	\iint_4	\iiint_5	\oint_6	\iiii_7	"0x
'oix	\int_8	\iint_9	\iiint_{10}	\oint_{11}	\simeq_{12}	\vee_{20}	\wedge_{21}	\sum_{22}	"1x
'o2x	\bowtie_{16}	Π_{17}	\amalg_{18}	\simeq_{19}	\vee_{20}	\wedge_{21}	\perp_{23}		"1x
'o3x	\mathfrak{H}_{24}	\backslash_{25}	$/_{26}$	\setminus_{27}	\lessdot_{28}	\gtrdot_{29}	\lll_{30}	\ggg_{31}	
'o4x	\leqq_{32}	\gtrless_{33}	\lessgtr_{34}	\gtrless_{35}	\lessgtr_{36}	\gtrless_{37}	$\not\approx_{38}$	$\not\approx_{39}$	"2x
'o5x	\nexists_{40}	\nexists_{41}	\nexists_{42}	\nexists_{43}	\nexists_{44}	\nexists_{45}	\nexists_{46}	\nexists_{47}	
'o6x	\nexists_{48}	\nexists_{49}	\nexists_{50}	\nexists_{51}	\vdots_{52}	\cdots_{53}	\ddots_{54}	\ddots_{55}	"3x
'o7x	\nexists_{56}	\nexists_{57}	\nexists_{58}	\nexists_{59}	\nexists_{60}	\nexists_{61}	\nexists_{62}	\nexists_{63}	
'o10x	Θ_{64}	65	66	\leftarrow_{67}	\uparrow_{68}	\rightarrow_{69}	\downarrow_{70}	\leftrightarrow_{71}	"4x
'o11x	\uparrow_{72}	\nwarrow_{73}	\nearrow_{74}	\searrow_{75}	\swarrow_{76}	\leftarrowtail_{77}	\rightarrowtail_{78}	\leftarrowtail_{79}	
'o12x	\mapsto_{80}	\leftarrowtail_{81}	\hookrightarrow_{82}	\nleftrightarrow_{83}	\leftarrow_{84}	\leftarrow_{85}	\rightarrow_{86}	\rightarrow_{87}	"5x
'o13x	\iff_{88}	\iff_{89}	\leftarrow_{90}	\rightarrow_{91}	\leftarrowtail_{92}	\leftarrowtail_{93}	\mapsto_{94}	\emptyset_{95}	
'o14x	$\hat{\equiv}_{96}$	$\hat{\equiv}_{97}$	$\hat{\equiv}_{98}$	$\hat{\equiv}_{99}$	$\hat{\equiv}_{100}$	$\hat{\equiv}_{101}$	$\hat{\equiv}_{102}$	$\hat{\equiv}_{103}$	"6x
'o15x	$\hat{\triangle}_{104}$	$\hat{\equiv}_{105}$	$\hat{\triangle}_{106}$	$\hat{\equiv}_{107}$	$\hat{\equiv}_{108}$	$\hat{\triangle}_{109}$	$\hat{\equiv}_{110}$	$\hat{\equiv}_{111}$	
'o16x	$\hat{\equiv}_{112}$	\neq_{113}	\equiv_{114}	\neq_{115}	\vdash_{116}	\dashv_{117}	\equiv_{118}	\leq_{119}	"7x
'o17x	\geq_{120}	\leqq_{121}	\geqq_{122}	\Re_{123}	\Im_{124}	\wp_{125}	\bigtriangleup_{126}	$\widehat{}_{127}$	
'o20x	\clubsuit_{128}	\diamondsuit_{129}	\heartsuit_{130}	\spadesuit_{131}	\natural_{132}	\circ_{133}	\S_{134}	\P_{135}	"8x
'o21x	\checkmark_{136}	$\overline{}_{137}$	$\overline{}_{138}$	ℓ_{139}	\wp_{140}	\wp_{141}	142	143	
'o22x	144	145	146	147	148	149	150	151	"9x
'o23x	152	153	154	Γ_{155}	156	157	158	159	
'o26x	176	177	178	179	180	181	\square_{182}	\blacksquare_{183}	"Bx
'o27x	\square_{184}	185	186	187	188	189	190	191	
'o30x	192	193	194	195	196	197	198	199	"Cx
'o31x	200	\blacktriangle_{201}	\triangle_{202}	203	204	$\blacktriangleright_{205}$	\triangleright_{206}	207	
'o32x	208	209	210	\blacktriangledown_{211}	\triangledown_{212}	213	214	\blacktriangleleft_{215}	"Dx
'o33x	\blacktriangleleft_{216}	\longleftarrow_{217}	\Longrightarrow_{218}	\Longleftarrow_{219}	\Longleftarrow_{220}	\blacklozenge_{221}	\lozenge_{222}	\Longrightarrow_{223}	
'o34x	\odot_{224}	\lozenge_{225}	\circlearrowleft_{226}	\neg_{227}	\equiv_{228}	\circlearrowright_{229}	\bullet_{230}	231	"Ex
'o35x	232	233	234	235	236	237	238	$\not\equiv_{239}$	
'o36x	$\not\Rightarrow_{240}$	$\not\Rightarrow_{241}$	\Leftarrow_{242}	\Uparrow_{243}	\Rightarrow_{244}	\Downarrow_{245}	\Leftrightarrow_{246}	\Updownarrow_{247}	"Fx
'o37x	\nwarrow_{248}	\nearrow_{249}	\nwarrow_{250}	\nearrow_{251}	\Leftarrow_{252}	\circ_{253}	\diamond_{254}	\Rightarrow_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathex (largesymbols):

	'o	'1	'2	'3	'4	'5	'6	'7	
'oox	(_o) ₁	₂	₃	[₄] ₅		6	7		'0x
'oix	[₈] ₉	[₁₀] ₁₁		{ ₁₂ } ₁₃		14	15		
'o2x	< ₁₆ >	> ₁₇	18	19	20	21	/ ₂₂	\ ₂₃	'1x
'o3x	(₂₄) ₂₅		26	27	[₂₈] ₂₉		30	31	
'o4x	[₃₂] ₃₃	[₃₄] ₃₅		{ ₃₆ } ₃₇		38	39		'2x
'o5x	< ₄₀ >	> ₄₁	42	43	44	45	/ ₄₆	\ ₄₇	
'o6x	(₄₈) ₄₉		50	51	[₅₂] ₅₃		54	55	'3x
'o7x	[₅₆] ₅₇	[₅₈] ₅₉		{ ₆₀ } ₆₁		62	63		
'o10x	< ₆₄ >	> ₆₅	66	67	68	69	/ ₇₀	\ ₇₁	'4x
'o11x	(₇₂) ₇₃		74	75	[₇₆] ₇₇		78	79	
'o12x	[₈₀] ₈₁	[₈₂] ₈₃		{ ₈₄ } ₈₅		86	87		'5x
'o13x	< ₈₈ >	> ₈₉	90	91	92	93	/ ₉₄	\ ₉₅	
'o14x	(₉₆) ₉₇	[₉₈] ₉₉	[₁₀₀] ₁₀₁	[₁₀₂] ₁₀₃					'6x
'o15x	c ₁₀₄	v ₁₀₅	u ₁₀₆	J ₁₀₇	{ ₁₀₈ } ₁₀₉	I ₁₁₀	I ₁₁₁		
'o16x	l ₁₁₂	j ₁₁₃	I ₁₁₄	I ₁₁₅	\ ₁₁₆	\ ₁₁₇	\ ₁₁₈	\ ₁₁₉	'7x
'o17x	₁₂₀	r ₁₂₁	\ ₁₂₂	\ ₁₂₃	\ ₁₂₄	\ ₁₂₅	\ ₁₂₆	\ ₁₂₇	

$'20x$	$\int\int_{128}$	$\int\int\int_{129}$	$\int\int\int\int_{130}$	$\int\int\int\int\int_{131}$	\oint_{132}	\oint_{133}	$\int\int\int\int\int_{134}$	$\int\int\int\int\int\int_{135}$	$"8x$
$'21x$	\int_{136}	$\int\int_{137}$	$\int\int\int_{138}$	$\int\int\int\int_{139}$	$\int\int\int\int\int_{140}$	$\int\int\int\int\int\int_{141}$	\oint_{142}	\oint_{143}	
$'22x$	$\int\int\int\int_{44}$	$\int\int\int\int\int_{145}$	\oint_{146}	\oint_{147}	\oint_{148}	\oint_{149}	$_{150}$	$_{151}$	$"9x$
$'23x$	$_{152}$	$_{153}$	$_{154}$	$_{155}$	$_{156}$	$_{157}$	$_{158}$	$_{159}$	
$'26x$	\prod_{176}	\prod_{177}	\coprod_{178}	\sum_{179}	\wedge_{180}	\vee_{181}	\cap_{182}	\cup_{183}	$"Bx$
$'27x$	$/_{184}$	\backslash_{185}	\odot_{186}	\oplus_{187}	\otimes_{188}	\cup_{189}	\cup_{190}	\prod_{191}	
$'30x$	\sqcup_{192}	$_{193}$	$_{194}$	$_{195}$	$_{196}$	$_{197}$	$_{198}$	\prod_{199}	$"Cx$
$'31x$	\coprod_{200}	\sum_{201}	\wedge_{202}	\vee_{203}	\cap_{204}	\cup_{205}	$/_{206}$	\backslash_{207}	
$'32x$	\odot_{208}	\oplus_{209}	\otimes_{210}	\cup_{211}	\cup_{212}	\prod_{213}	\sqcup_{214}	$_{215}$	$"Dx$
$'33x$	$_{216}$	$_{217}$	$_{218}$	$_{219}$	$(_{220}$	$)_{221}$	$_{222}$	$_{223}$	
$'34x$	\llbracket_{224}	\rrbracket_{225}	\lfloor_{226}	\rfloor_{227}	\lceil_{228}	\rceil_{229}	\int_{230}	$\}^{_{231}}$	$"Ex$
$'35x$	$_{232}$	$_{233}$	\langle_{234}	\rangle_{235}	$_{236}$	$_{237}$	$_{238}$	$_{239}$	
$'36x$	$ _{240}$	\parallel_{241}	$_{242}$	$ _{243}$	\parallel_{244}	$_{245}$	$_{246}$	$_{247}$	$"Fx$
$'37x$	$_{248}$	$\sqrt{^{249}}$	$_{250}$	$_{251}$	$_{252}$	$_{253}$	$_{254}$	$_{255}$	
	$"8$	$"9$	$"A$	$"B$	$"C$	$"D$	$"E$	$"F$	

`libertinust1-mathbb` (`\mathbb`):

	'o	'1	'2	'3	'4	'5	'6	'7	
'10x	64	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
'11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
'12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
'13x	X ₈₈	Y ₈₉	Z ₉₀	91	92	93	94	95	
'14x	96	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
'15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
'16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
'17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	l ₁₂₃	j ₁₂₄	125	126	127	
	"8	"9	"A	"B	"C	"D	"E	"F	

`libertinust1-mathsf` (`mathsf`):

	'o	'1	'2	'3	'4	'5	'6	'7	
'o _{2x}	I ₁₆	J ₁₇	i ₁₈	i ₁₉	o ₂₀	o ₂₁	o ₂₂	o ₂₃	"1x
'o _{3x}	o ₂₄	o ₂₅	o ₂₆	o ₂₇	o ₂₈	o ₂₉	o ₃₀	o ₃₁	
'o _{6x}	o ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
'o _{7x}	8 ₅₆	9 ₅₇	5 ₅₈	5 ₅₉	6 ₆₀	6 ₆₁	6 ₆₂	6 ₆₃	
'o _{10x}	6 ₆₄	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
'o _{11x}	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
'o _{12x}	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
'o _{13x}	X ₈₈	Y ₈₉	Z ₉₀	9 ₉₁	9 ₉₂	9 ₉₃	9 ₉₄	9 ₉₅	
'o _{14x}	9 ₉₆	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
'o _{15x}	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
'o _{16x}	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
'o _{17x}	x ₁₂₀	y ₁₂₁	z ₁₂₂	12 ₁₂₃	12 ₁₂₄	12 ₁₂₅	12 ₁₂₆	12 ₁₂₇	
	"8	"9	"A	"B	"C	"D	"E	"F	