

# Symbols defined by unicode-math

Will Robertson

Modified (df) to show Euler Math symbols

This document uses the file `unicode-math-table.tex` to print every symbol defined by the `unicode-math` package. Use this document to find the command name or the Unicode glyph slot for a symbol that you wish to use. The following fonts are shown: (with approximate symbol counts)

L **Latin Modern Math** (1602)

S **STIX Math Two** (2447)

E **Erewhon Math** (1679)

P **TeX Gyre Pagella Math** (1655)

A **Asana Math** (2323)

N **Euler Math** (1638)

Symbols defined in Plain  $\mathrm{T}_{\mathrm{E}}\mathrm{X}$  are indicated with <sup>(p)</sup> after their macro name.  $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$  follows Plain  $\mathrm{T}_{\mathrm{E}}\mathrm{X}$ , but defines a handful more, indicated with <sup>(l)</sup>. Symbols defined in `amssymb` are indicated with <sup>(a)</sup>.

Note that this list of fonts is not intended to be exhaustive but I am happy to add new fonts by request if they are distributed in  $\mathrm{T}_{\mathrm{E}}\mathrm{X}$  Live.<sup>1</sup>

## Contents

1	Opening symbols, <code>\mathopen</code>	3
2	Closing symbols, <code>\mathclose</code>	5
3	Fence symbols, <code>\mathfence</code>	6
4	Punctuation symbols, <code>\mathpunct</code>	7
5	‘Over’ symbols, <code>\mathover</code>	7
6	‘Under’ symbols, <code>\mathunder</code>	7
7	Accents, <code>\mathaccent</code>	8
8	Accents wide, <code>\mathaccentwide</code>	9
9	Bottom accents, <code>\mathbotaccent</code>	10
10	Bottom accents wide, <code>\mathbotaccentwide</code>	10
11	Big operators, <code>\mathop</code>	10


































---

<sup>1</sup>Only a single  $\mathrm{T}_{\mathrm{E}}\mathrm{X}$  Gyre Math font is shown here by design as they all largely have the same symbol coverage.

<b>12 Binary relations, <code>\mathbin</code></b>	<b>15</b>
<b>13 Ordinary symbols, <code>\mathord</code></b>	<b>25</b>
<b>14 Relation symbols, <code>\mathrel</code></b>	<b>49</b>
<b>15 Alphabetical symbols, <code>\mathalpha</code></b>	<b>81</b>
15.1 Normal weight . . . . .	81
15.1.1 Upright Greek, uppercase . . . . .	81
15.1.2 Upright Greek, lowercase . . . . .	82
15.1.3 Italic, Latin, uppercase . . . . .	84
15.1.4 Italic, Latin, lowercase . . . . .	85
15.1.5 Italic Greek, uppercase . . . . .	86
15.1.6 Italic Greek, lowercase . . . . .	88
15.1.7 Script, Latin, uppercase . . . . .	90
15.1.8 Script, Latin, lowercase . . . . .	91
15.1.9 Fraktur, Latin, uppercase . . . . .	92
15.1.10 Fraktur, Latin, lowercase . . . . .	93
15.1.11 Blackboard, Latin, uppercase . . . . .	94
15.1.12 Blackboard, Latin, lowercase . . . . .	96
15.1.13 Sans serif, Latin, uppercase . . . . .	97
15.1.14 Sans serif, Latin, lowercase . . . . .	99
15.1.15 Italic sans serif, Latin, uppercase . . . . .	100
15.1.16 Italic sans serif, Latin, lowercase . . . . .	102
15.1.17 Typewriter, Latin, uppercase . . . . .	104
15.1.18 Typewriter, Latin, lowercase . . . . .	105
15.2 Bold . . . . .	107
15.2.1 Bold, Latin, uppercase . . . . .	107
15.2.2 Bold, Latin, lowercase . . . . .	108
15.2.3 Bold Greek, uppercase . . . . .	110
15.2.4 Bold Greek, lowercase . . . . .	111
15.2.5 Bold italic, Latin, uppercase . . . . .	113
15.2.6 Bold italic, Latin, lowercase . . . . .	115
15.2.7 Bold italic Greek, uppercase . . . . .	116
15.2.8 Bold italic Greek, lowercase . . . . .	118
15.2.9 Bold script, Latin, uppercase . . . . .	120
15.2.10 Bold script, Latin, lowercase . . . . .	122
15.2.11 Bold fraktur, Latin, uppercase . . . . .	123
15.2.12 Bold fraktur, Latin, lowercase . . . . .	125
15.2.13 Bold sans serif, Latin, uppercase . . . . .	126
15.2.14 Bold sans serif, Latin, lowercase . . . . .	128
15.2.15 Bold italic sans serif, Latin, uppercase . . . . .	130
15.2.16 Bold italic sans serif, Latin, lowercase . . . . .	131
15.2.17 Bold sans serif Greek, uppercase . . . . .	133
15.2.18 Bold sans serif Greek, lowercase . . . . .	134
15.2.19 Bold italic sans serif Greek, uppercase . . . . .	136
15.2.20 Bold italic sans serif Greek, lowercase . . . . .	138
15.3 Miscellaneous . . . . .	140

# 1 Opening symbols, \mathopen

USV	L	S	E	P	A	N	Macro	Description
U+00028	(	(	(	(	(	(	\lparen	left parenthesis
U+0005B	[	[	[	[	[	[	\lbrack	left square bracket
U+0007B	{	{	{	{	{	{	\lbrace <sup>(p)</sup>	left curly bracket
U+0221A	√	√	√	√	√	√	\sqrt <sup>(p)</sup>	radical
U+0221B		∛	∛		∛	∛	\cuberoot	cube root
U+0221C		∜	∜		∜	∜	\fourthroot	fourth root
U+02308	⌈	⌈	⌈	⌈	⌈	⌈	\lceil <sup>(p)</sup>	left ceiling
U+0230A	⌋	⌋	⌋	⌋	⌋	⌋	\lfloor <sup>(p)</sup>	left floor
U+0231C	⌜	⌜	⌜	⌜	⌜	⌜	\ulcorner	upper left corner
U+0231E	⌞	⌞	⌞	⌞	⌞	⌞	\llcorner	lower left corner
U+023B0		⎵	⎵			⎵	\lmoustache <sup>(p)</sup>	upper left or lower right curly bracket section
U+02772		⎵					\lbrbrak	light left tortoise shell bracket ornament
U+027C5		⎵			⎵		\lbag	left s-shaped bag delimiter
U+027CC		⎵					\longdivision	long division
U+027E6	⌈	⌈	⌈	⌈	⌈	⌈	\lBrack	mathematical left white square bracket
U+027E8	⌈	⌈	⌈	⌈	⌈	⌈	\langle <sup>(p)</sup>	mathematical left angle bracket
U+027EA	⌈	⌈	⌈	⌈	⌈	⌈	\lAngle	mathematical left double angle bracket
U+027EC		⎵			⎵		\Lbrbrak	mathematical left white tortoise shell bracket

USV	L	S	E	P	A	N	Macro	Description
U+027EE							<code>\lgroup<sup>(p)</sup></code>	mathematical left flattened parenthesis
U+02983							<code>\lBrace</code>	left white curly bracket
U+02985							<code>\lParen</code>	left white parenthesis
U+02987							<code>\llparenthesis</code>	z notation left image bracket
U+02989							<code>\llangle</code>	z notation left binding bracket
U+0298B							<code>\lbrackubar</code>	left square bracket with underbar
U+0298D							<code>\lbrackultick</code>	left square bracket with tick in top corner
U+0298F							<code>\lbracklltick</code>	left square bracket with tick in bottom corner
U+02991							<code>\langedot</code>	left angle bracket with dot
U+02993							<code>\lparenless</code>	left arc less-than bracket
U+02995							<code>\Lparengtr</code>	double left arc greater-than bracket
U+02997							<code>\lblrbrak</code>	left black tortoise shell bracket
U+029D8							<code>\lvzigzag</code>	left wiggly fence
U+029DA							<code>\Lvzigzag</code>	left double wiggly fence
U+029FC							<code>\lcurvyangle</code>	left pointing curved angle bracket

## 2 Closing symbols, \mathclose

USV	L	S	E	P	A	N	Macro	Description
U+00021	!	!	!	!	!	!	\mathexclam	exclamation mark
U+00029	)	)	)	)	)	)	\rparen	right parenthesis
U+0005D	]	]	]	]	]	]	\rbrack	right square bracket
U+0007D	}	}	}	}	}	}	\rbrace <sup>(p)</sup>	right curly bracket
U+02309	⌈	⌈	⌈	⌈	⌈	⌈	\rceil <sup>(p)</sup>	right ceiling
U+0230B	⌋	⌋	⌋	⌋	⌋	⌋	\rfloor <sup>(p)</sup>	right floor
U+0231D	⌵	⌵	⌵	⌵	⌵	⌵	\urcorner	upper right corner
U+0231F	⌴	⌴	⌴	⌴	⌴	⌴	\lrcorner	lower right corner
U+023B1	⌋	⌋				⌋	\rmoustache <sup>(p)</sup>	upper right or lower left curly bracket section
U+02773	⌋						\rbrbrak	light right tortoise shell bracket ornament
U+027C6	⌋				⌋		\rbag	right s-shaped bag delimiter
U+027E7	⌋	⌋	⌋	⌋	⌋	⌋	\rBrack	mathematical right white square bracket
U+027E9	⌋	⌋	⌋	⌋	⌋	⌋	\rangle <sup>(p)</sup>	mathematical right angle bracket
U+027EB	⌋	⌋	⌋	⌋	⌋	⌋	\rAngle	mathematical right double angle bracket
U+027ED	⌋				⌋		\Rbrbrak	mathematical right white tortoise shell bracket
U+027EF	)	)	)	)	)		\rgroup <sup>(p)</sup>	mathematical right flattened parenthesis
U+02984	⌋				⌋		\rBrace	right white curly bracket
U+02986	⌋				⌋		\rParen	right white parenthesis

usv	L	S	E	P	A	N	Macro	Description
U+02988		﴾			﴾		<code>\rrparenthesis</code>	z notation right image bracket
U+0298A		﴾			﴾		<code>\rrangle</code>	z notation right binding bracket
U+0298C		]			]		<code>\rbrackubar</code>	right square bracket with underbar
U+0298E		]			]		<code>\rbracklrtick</code>	right square bracket with tick in bottom corner
U+02990		]			]		<code>\rbrackurtick</code>	right square bracket with tick in top corner
U+02992		⟩			⟩		<code>\rangledot</code>	right angle bracket with dot
U+02994		⋗			⋗		<code>\rparengtr</code>	right arc greater-than bracket
U+02996		⋘			⋘		<code>\Rparenless</code>	double right arc less-than bracket
U+02998		)			)		<code>\rblbrbrak</code>	right black tortoise shell bracket
U+029D9		⋈			⋈		<code>\rvzigzag</code>	right wiggly fence
U+029DB		⋉			⋉		<code>\Rvzigzag</code>	right double wiggly fence
U+029FD		⋋			⋋		<code>\rcurvyangle</code>	right pointing curved angle bracket

### 3 Fence symbols, `\mathfence`

usv	L	S	E	P	A	N	Macro	Description
U+0007C							<code>\vert<sup>(p)</sup></code>	vertical bar
U+02016							<code>\Vert<sup>(p)</sup></code>	double vertical bar
U+02980							<code>\Vvert</code>	triple vertical bar delimiter

## 4 Punctuation symbols, `\mathpunct`

USV	L	S	E	P	A	N	Macro	Description
U+0002C	,	,	,	,	,	,	<code>\mathcomma</code>	comma
U+0003A	:	:	:	:	:	:	<code>\mathcolon</code>	colon
U+0003B	;	;	;	;	;	;	<code>\mathsemicolon</code>	semicolon p:

## 5 ‘Over’ symbols, `\mathover`

USV	L	S	E	P	A	N	Macro	Description
U+023B4	$\overline{x+y}$	$\overline{x+y}$	$\overline{x+y}$	$\overline{x+y}$	$\overline{x+y}$	$\overline{x+y}$	<code>\overbracket</code>	top square bracket
U+023DC	$\overparen{x+y}$	$\overparen{x+y}$	$\overparen{x+y}$	$\overparen{x+y}$	$\overparen{x+y}$	$\overparen{x+y}$	<code>\overparen</code>	top parenthesis (mathematical use)
U+023DE	$\overbrace{x+y}$	$\overbrace{x+y}$	$\overbrace{x+y}$	$\overbrace{x+y}$	$\overbrace{x+y}$	$\overbrace{x+y}$	<code>\overbrace</code> <sup>(p)</sup>	top curly bracket (mathematical use)

## 6 ‘Under’ symbols, `\mathunder`

USV	L	S	E	P	A	N	Macro	Description
U+023B5	$\underline{x+y}$	$\underline{x+y}$	$\underline{x+y}$	$\underline{x+y}$	$\underline{x+y}$	$\underline{x+y}$	<code>\underbracket</code>	bottom square bracket
U+023DD	$\underparen{x+y}$	$\underparen{x+y}$	$\underparen{x+y}$	$\underparen{x+y}$	$\underparen{x+y}$	$\underparen{x+y}$	<code>\underparen</code>	bottom parenthesis (mathematical use)
U+023DF	$\underbrace{x+y}$	$\underbrace{x+y}$	$\underbrace{x+y}$	$\underbrace{x+y}$	$\underbrace{x+y}$	$\underbrace{x+y}$	<code>\underbrace</code> <sup>(p)</sup>	bottom curly bracket (mathematical use)

## 7 Accents, \mathaccent

Note that accents will only be properly placed if used with an OpenType font with the necessary information.

usv	L	S	E	P	A	N	Macro	Description
u+00300	À	Á	Â	Ã	Ä	Å	\grave{(p)}	grave accent
u+00301	Á	Â	Ã	Ä	Å	Æ	\acute{(p)}	acute accent
u+00302	Â	Ã	Ä	Å	Æ	Ç	\hat{(p)}	circumflex accent
u+00303	Ã	Ä	Å	Æ	Ç	Ð	\tilde{(p)}	tilde
u+00304	Ä	Å	Æ	Ç	Ð	Ñ	\bar{(p)}	macron
u+00305	Å	Æ	Ç	Ð	Ñ	Ò	\overbar	overbar embellishment
u+00306	Æ	Ç	Ð	Ñ	Ò	Ó	\breve{(p)}	breve
u+00307	Ç	Ð	Ñ	Ò	Ó	Ô	\dot{(p)}	dot above
u+00308	Ð	Ñ	Ò	Ó	Ô	Õ	\ddot{(p)}	dieresis
u+00309	Ñ	Ò	Ó	Ô	Õ	Ö	\ovhook	combining hook above
u+0030A	Ò	Ó	Ô	Õ	Ö	×	\ocirc	ring
u+0030C	Ó	Ô	Õ	Ö	×	×	\check{(p)}	caron
u+00310	×						\candra	candrabindu (non-spacing)
u+00312	×						\oturnedcomma	combining turned comma above
u+00315	×						\ocommatopright	combining comma above right
u+0031A	×						\droang	left angle above (non-spacing)
u+020D0	×	×	×	×	×	×	\leftharpoonaccent	combining left harpoon above
u+020D1	×	×	×	×	×	×	\rightharpoonaccent	combining right harpoon above



USV	L	S	E	P	A	N	Macro	Description
U+020D2	$\overline{x}$	$\overline{y}$	$\overline{z}$	$\overline{w}$	$\overline{v}$	$\overline{u}$	<code>\vertoverlay</code>	combining long vertical line overlay
U+020D7	$\vec{x}$	$\vec{y}$	$\vec{z}$	$\vec{w}$	$\vec{v}$	$\vec{u}$	<code>\vec<sup>(p)</sup></code>	combining right arrow above
U+020DB	$\ddot{x}$	$\ddot{y}$	$\ddot{z}$	$\ddot{w}$	$\ddot{v}$	$\ddot{u}$	<code>\dddot</code>	combining three dots above
U+020DC	$\overset{\cdot}{x}$	$\overset{\cdot}{y}$	$\overset{\cdot}{z}$	$\overset{\cdot}{w}$	$\overset{\cdot}{v}$	$\overset{\cdot}{u}$	<code>\ddddot</code>	combining four dots above
U+020E7	$\overline{\overline{x}}$				$\overline{\overline{y}}$		<code>\annuity</code>	combining annuity symbol
U+020E9	$\widehat{x}$	$\widehat{y}$	$\widehat{z}$	$\widehat{w}$	$\widehat{v}$	$\widehat{u}$	<code>\widehat<sup>(p)</sup></code>	combining wide bridge above
U+020F0	$\overset{*}{x}$	$\overset{*}{y}$	$\overset{*}{z}$	$\overset{*}{w}$		$\overset{*}{u}$	<code>\asteraccent</code>	combining asterisk above

## 8 Accents wide, `\mathaccentwide`

USV	L	S	E	P	A	N	Macro	Description
U+00302	$\widehat{x+y}$	$\widehat{x+y}$	$\widehat{x+y}$	$\widehat{x+y}$	$\widehat{x+y}$	$\widehat{x+y}$	<code>\widehat<sup>(p)</sup></code>	circumflex accent
U+00303	$\widetilde{x+y}$	$\widetilde{x+y}$	$\widetilde{x+y}$	$\widetilde{x+y}$	$\widetilde{x+y}$	$\widetilde{x+y}$	<code>\widetilde<sup>(p)</sup></code>	tilde
U+00305	$\overline{\overline{x+y}}$	$\overline{\overline{x+y}}$	$\overline{\overline{x+y}}$	$\overline{\overline{x+y}}$	$\overline{\overline{x+y}}$	$\overline{\overline{x+y}}$	<code>\wideoverbar</code>	stretchy overbar embellishment
U+00306	$\overline{\breve{x+y}}$	$\overline{\breve{x+y}}$	$\overline{\breve{x+y}}$	$\overline{\breve{x+y}}$	$\overline{\breve{x+y}}$	$\overline{\breve{x+y}}$	<code>\widebreve</code>	stretchy breve
U+0030C	$\overline{\check{x+y}}$	$\overline{\check{x+y}}$	$\overline{\check{x+y}}$	$\overline{\check{x+y}}$	$\overline{\check{x+y}}$	$\overline{\check{x+y}}$	<code>\widecheck</code>	stretchy caron
U+020D0	$\overleftarrow{x+y}$	$\overleftarrow{x+y}$	$\overleftarrow{x+y}$	$\overleftarrow{x+y}$	$\overleftarrow{x+y}$	$\overleftarrow{x+y}$	<code>\overleftarrow</code>	combining left harpoon above
U+020D1	$\overrightarrow{x+y}$	$\overrightarrow{x+y}$	$\overrightarrow{x+y}$	$\overrightarrow{x+y}$	$\overrightarrow{x+y}$	$\overrightarrow{x+y}$	<code>\overrightarrow</code>	combining right harpoon above
U+020D6	$\overleftarrow{\overrightarrow{x+y}}$	$\overleftarrow{\overrightarrow{x+y}}$	$\overleftarrow{\overrightarrow{x+y}}$	$\overleftarrow{\overrightarrow{x+y}}$	$\overleftarrow{\overrightarrow{x+y}}$	$\overleftarrow{\overrightarrow{x+y}}$	<code>\overleftarrow<sup>(p)</sup></code>	combining left arrow above
U+020D7	$\overrightarrow{\overleftarrow{x+y}}$	$\overrightarrow{\overleftarrow{x+y}}$	$\overrightarrow{\overleftarrow{x+y}}$	$\overrightarrow{\overleftarrow{x+y}}$	$\overrightarrow{\overleftarrow{x+y}}$	$\overrightarrow{\overleftarrow{x+y}}$	<code>\overrightarrow<sup>(p)</sup></code>	combining left arrow above
U+020E1	$\overleftrightarrow{x+y}$	$\overleftrightarrow{x+y}$	$\overleftrightarrow{x+y}$	$\overleftrightarrow{x+y}$	$\overleftrightarrow{x+y}$	$\overleftrightarrow{x+y}$	<code>\overleftrightarrow</code>	combining left right arrow above

USV	L	S	E	P	A	N	Macro	Description
-----	---	---	---	---	---	---	-------	-------------

## 9 Bottom accents, `\mathbotaccent`

USV	L	S	E	P	A	N	Macro	Description
U+020E8	$\underline{\underline{x}}$	$\underline{\underline{y}}$	$\underline{\underline{z}}$	$\underline{\underline{w}}$	$\underline{\underline{v}}$	$\underline{\underline{u}}$	<code>\threeunderdot</code>	combining triple underdot

## 10 Bottom accents wide, `\mathbotaccentwide`





































































USV	L	S	E	P	A	N	Macro	Description
U+00330	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$		$\text{\textit{x}} + \text{\textit{y}}$	<code>\wideutilde</code>	under tilde accent (multiple characters and non-spacing)
U+00332	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	$\underline{\text{\textit{x}} + \text{\textit{y}}}$	<code>\mathunderbar</code>	combining low line
U+0034D	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$		$\text{\textit{x}} + \text{\textit{y}}$	<code>\underleftrightharpoonarrow</code>	underleftrightharpoonarrow accent
U+020EC	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	<code>\underrightharpoonowdown</code>	combining rightwards harpoon with barb downwards
U+020ED	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	<code>\underleftharpoonowdown</code>	combining leftwards harpoon with barb downwards
U+020EE	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	<code>\underleftarrow</code>	combining left arrow below
U+020EF	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	$\text{\textit{x}} + \text{\textit{y}}$	<code>\underrightarrow</code>	combining right arrow below












































## 11 Big operators, `\mathop`





























Of the operators shown below, a subset need to be flagged by unicode-math for `\nolimits` adjustments. The limits behaviour as specified by unicode-math are shown with grey subscripts and superscripts.

USV	L	S	E	P	A	N	Macro	Description
U+02140	$\sum_0^1$	$\sum_0^1$	$\sum_0^1$	$\sum_0^1$	$\sum_0^1$	$\sum_0^1$	<code>\Bbbsum</code>	double-struck n-ary summation



USV	L	S	E	P	A	N	Macro	Description
U+027D5							<code>\leftouterjoin</code>	left outer join
U+027D6							<code>\rightouterjoin</code>	right outer join
U+027D7							<code>\fullouterjoin</code>	full outer join
U+027D8							<code>\bigbot</code>	large up tack
U+027D9							<code>\bigtop</code>	large down tack
U+029F8							<code>\xsol</code>	big solidus
U+029F9							<code>\xbsol</code>	big reverse solidus
U+02A00							<code>\bigodot<sup>(p)</sup></code>	n-ary circled dot operator
U+02A01							<code>\bigoplus<sup>(p)</sup></code>	n-ary circled plus operator
U+02A02							<code>\bigotimes<sup>(p)</sup></code>	n-ary circled times operator
U+02A03							<code>\bigcupdot</code>	n-ary union operator with dot
U+02A04							<code>\biguplus<sup>(p)</sup></code>	n-ary union operator with plus
U+02A05							<code>\bigsqcap</code>	n-ary square intersection operator
U+02A06							<code>\bigsqcup<sup>(p)</sup></code>	n-ary square union operator
U+02A07							<code>\conjquant</code>	two logical and operator
U+02A08							<code>\disjquant</code>	two logical or operator

USV	L	S	E	P	A	N	Macro	Description
U+02A09							<code>\bigtimes</code>	n-ary times operator
U+02A0A							<code>\modtwosum</code>	modulo two sum
U+02A0B							<code>\sumint</code>	summation with integral
U+02A0C							<code>\iiint</code>	quadruple integral operator
U+02A0D							<code>\intbar</code>	finite part integral
U+02A0E							<code>\intBar</code>	integral with double stroke
U+02A0F							<code>\fint</code>	integral average with slash
U+02A10							<code>\cirfnint</code>	circulation function
U+02A11							<code>\awint</code>	anticlockwise integration
U+02A12							<code>\rppoint</code>	line integration with rectangular path around pole
U+02A13							<code>\scpoint</code>	line integration with semicircular path around pole
U+02A14							<code>\npoint</code>	line integration not including the pole
U+02A15							<code>\pointint</code>	integral around a point operator
U+02A16							<code>\sqint</code>	quaternion integral operator
U+02A17							<code>\intlarhk</code>	integral with leftwards arrow with hook























































































USV	L	S	E	P	A	N	Macro	Description
U+02A18							<code>\intx</code>	integral with times sign
U+02A19							<code>\intcap</code>	integral with intersection
U+02A1A							<code>\intcup</code>	integral with union
U+02A1B							<code>\upint</code>	integral with overbar
U+02A1C							<code>\lowint</code>	integral with underbar
U+02A1D							<code>\Join</code>	join
U+02A1E							<code>\bigtriangleleft</code>	large left triangle operator
U+02A1F							<code>\zcmp</code>	z notation schema composition
U+02A20							<code>\zpipe</code>	z notation schema piping
U+02A21							<code>\zproject</code>	z notation schema projection
U+02AFC							<code>\biginterleave</code>	large triple vertical bar operator
U+02AFF							<code>\bigtalloblong</code>	n-ary white vertical bar
U+1EEF0							<code>\arabicmaj</code>	arabic mathematical operator meem with hah with tatweel
U+1EEF1							<code>\arabichad</code>	arabic mathematical operator hah with dal













































































## 12 Binary relations, `\mathbin`












































USV	L	S	E	P	A	N	Macro	Description
U+0002B	+	+	+	+	+	+	<code>\mathplus</code>	plus sign b:
U+000B1	±	±	±	±	±	±	<code>\pm<sup>(p)</sup></code>	plus-or-minus sign
U+000B7	·	·	·	·	·	·	<code>\cdotp<sup>(p)</sup></code>	/centerdot b: middle dot
U+000D7	×	×	×	×	×	×	<code>\times<sup>(p)</sup></code>	multiply sign
U+000F7	÷	÷	÷	÷	÷	÷	<code>\div<sup>(p)</sup></code>	divide sign
U+02020	†	†	†	†	†	†	<code>\dagger<sup>(p)</sup></code>	dagger relation
U+02021	‡	‡	‡	‡	‡	‡	<code>\ddagger<sup>(p)</sup></code>	double dagger relation
U+02022	●	●	●	●	●	●	<code>\smbkcircle</code>	/bullet b: round bullet, filled
U+02040		⋈			⋈		<code>\tieconcat</code>	character tie, z notation sequence concatenation
U+02044	/	/	/	/	/	/	<code>\fracslash</code>	fraction slash
U+0214B		⌘	⌘		⌘	⌘	<code>\upand</code>	turned ampersand
U+02212	−	−	−	−	−	−	<code>\minus</code>	minus sign
U+02213	∓	∓	∓	∓	∓	∓	<code>\mp<sup>(p)</sup></code>	minus-or-plus sign
U+02214	⋈	⋈	⋈	⋈	⋈	⋈	<code>\dotplus<sup>(a)</sup></code>	plus sign, dot above
U+02215	/	/	/	/	/	/	<code>\divslash</code>	division slash
U+02216	↖	↖	↖	↖	↖	↖	<code>\setminus<sup>(p)</sup></code>	set minus (cf. reverse solidus)
U+02217	*	*	*	*	*	*	<code>\ast<sup>(p)</sup></code>	centered asterisk
U+02218	○	○	○	○	○	○	<code>\ysmwhtcircle</code>	composite function (small circle)
U+02219	●	●	●	●	●	●	<code>\ysmbkcircle</code>	bullet operator

usv	L	S	E	P	A	N	Macro	Description
U+02227							$\backslash\mathrm{wedge}^{(p)}$	/wedge /land b: logical and
U+02228							$\backslash\mathrm{vee}^{(p)}$	/vee /lor b: logical or
U+02229							$\backslash\mathrm{cap}^{(p)}$	intersection
U+0222A							$\backslash\mathrm{cup}^{(p)}$	union or logical sum
U+02238							$\backslash\mathrm{dotminus}$	minus sign, dot above
U+0223E							$\backslash\mathrm{invlazys}$	most positive [inverted lazy s]
U+02240							$\backslash\mathrm{wr}^{(p)}$	wreath product
U+0228C							$\backslash\mathrm{cupleftarrow}$	multiset
U+0228D							$\backslash\mathrm{cupdot}$	union, with dot
U+0228E							$\backslash\mathrm{uplus}^{(p)}$	plus sign in union
U+02293							$\backslash\mathrm{sqcap}^{(p)}$	square intersection
U+02294							$\backslash\mathrm{sqcup}^{(p)}$	square union
U+02295							$\backslash\mathrm{oplus}^{(p)}$	plus sign in circle
U+02296							$\backslash\mathrm{ominus}^{(p)}$	minus sign in circle
U+02297							$\backslash\mathrm{otimes}^{(p)}$	multiply sign in circle
U+02298							$\backslash\mathrm{oslash}^{(p)}$	solidus in circle
U+02299							$\backslash\mathrm{odot}^{(p)}$	middle dot in circle
U+0229A							$\backslash\mathrm{circledcirc}^{(a)}$	small circle in circle
U+0229B							$\backslash\mathrm{circledast}^{(a)}$	asterisk in circle
U+0229C							$\backslash\mathrm{circleddequal}$	equal in circle
U+0229D							$\backslash\mathrm{circleddash}^{(a)}$	hyphen in circle










USV	L	S	E	P	A	N	Macro	Description
U+0229E							<code>\boxplus<sup>(a)</sup></code>	plus sign in box
U+0229F							<code>\boxminus<sup>(a)</sup></code>	minus sign in box
U+022A0							<code>\boxtimes<sup>(a)</sup></code>	multiply sign in box
U+022A1							<code>\boxdot<sup>(a)</sup></code>	/dotsquare /boxdot b: small dot in box
U+022BA							<code>\intercal<sup>(a)</sup></code>	intercal
U+022BB							<code>\veebar<sup>(a)</sup></code>	logical or, bar below (large vee); exclusive disjunction
U+022BC							<code>\barwedge<sup>(a)</sup></code>	bar, wedge (large wedge)
U+022BD							<code>\barvee</code>	bar, vee (large vee)
U+022C4							<code>\smwhtdiamond</code>	white diamond
U+022C5							<code>\cdot<sup>(p)</sup></code>	small middle dot
U+022C6							<code>\star<sup>(p)</sup></code>	small star, filled, low
U+022C7							<code>\divideontimes<sup>(a)</sup></code>	division on times
U+022C9							<code>\ltimes<sup>(a)</sup></code>	times sign, left closed
U+022CA							<code>\rtimes<sup>(a)</sup></code>	times sign, right closed
U+022CB							<code>\leftthreetimes<sup>(a)</sup></code>	left semidirect product
U+022CC							<code>\rightthreetimes<sup>(a)</sup></code>	right semidirect product
U+022CE							<code>\curlyvee<sup>(a)</sup></code>	curly logical or
U+022CF							<code>\curlywedge<sup>(a)</sup></code>	curly logical and
U+022D2							<code>\Cap<sup>(a)</sup></code>	/cap /doublecap b: double intersection
U+022D3							<code>\Cup<sup>(a)</sup></code>	/cup /doublecup b: double union

usv	L	S	E	P	A	N	Macro	Description
U+02305							<code>\varbarwedge</code>	/barwedge b: logical and, bar above [projective (bar over small wedge)]
U+02306							<code>\vardoublebarwedge</code>	/doublebarwedge b: logical and, double bar above [perspective (double bar over small wedge)]
U+0233D							<code>\obar</code>	circle with vertical bar
U+025B3							<code>\bigtriangleup<sup>(p)</sup></code>	big up triangle, open
U+025B7							<code>\triangleright<sup>(p)</sup></code>	(large) right triangle, open; z notation range restriction
U+025C1							<code>\triangleleft<sup>(p)</sup></code>	(large) left triangle, open; z notation domain restriction
U+025CB							<code>\mdlgwhtcircle</code>	medium large circle
U+025EB							<code>\boxbar</code>	vertical bar in box
U+027C7							<code>\veedot</code>	or with dot inside
U+027D1							<code>\wedgedot</code>	and with dot
U+027E0							<code>\lozengeminus</code>	lozenge divided by horizontal rule
U+027E1							<code>\concavediamond</code>	white concave-sided diamond
U+027E2							<code>\concavediamondtickleft</code>	white concave-sided diamond with leftwards tick
U+027E3							<code>\concavediamondtickright</code>	white concave-sided diamond with rightwards tick
U+027E4							<code>\whitesquaretickleft</code>	white square with leftwards tick
U+027E5							<code>\whitesquaretickright</code>	white square with rightwards tick
U+029B5							<code>\circlehbar</code>	circle with horizontal bar
U+029B6							<code>\circledvert</code>	circled vertical bar

USV	L	S	E	P	A	N	Macro	Description
U+029B7							<code>\circledparallel</code>	circled parallel
U+029B8							<code>\obslash</code>	circled reverse solidus
U+029B9							<code>\operp</code>	circled perpendicular
U+029C0							<code>\olessthan</code>	circled less-than
U+029C1							<code>\ogreaterthan</code>	circled greater-than
U+029C4							<code>\boxdiag</code>	squared rising diagonal slash
U+029C5							<code>\boxbslash</code>	squared falling diagonal slash
U+029C6							<code>\boxast</code>	squared asterisk
U+029C7							<code>\boxcircle</code>	squared small circle
U+029C8							<code>\boxbox</code>	squared square
U+029CD							<code>\triangleserifs</code>	triangle with serifs at bottom
U+029D6							<code>\hourglass</code>	white hourglass
U+029D7							<code>\blackhourglass</code>	black hourglass
U+029E2							<code>\shuffle</code>	shuffle product
U+029EB							<code>\mdlgblklozenge</code>	black lozenge
U+029F5							<code>\reversesolidus</code>	reverse solidus
U+029F6							<code>\dsol</code>	solidus with overbar
U+029F7							<code>\rsolbar</code>	reverse solidus with horizontal stroke
U+029FA							<code>\doubleplus</code>	double plus
U+029FB							<code>\tripleplus</code>	triple plus

USV	L	S	E	P	A	N	Macro	Description
U+029FE		+			+		<code>\tplus</code>	tiny
U+029FF		−			−		<code>\tminus</code>	miny
U+02A22		⊕			⊕		<code>\ringplus</code>	plus sign with small circle above
U+02A23		⋈			⋈		<code>\plushat</code>	plus sign with circumflex accent above
U+02A24		⊕̃			⊕̃		<code>\simplus</code>	plus sign with tilde above
U+02A25		⊕̣			⊕̣		<code>\plusdot</code>	plus sign with dot below
U+02A26		⊕̂			⊕̂		<code>\plussim</code>	plus sign with tilde below
U+02A27		⊕₂			⊕₂		<code>\plussubtwo</code>	plus sign with subscript two
U+02A28		⊕▴			⊕▴		<code>\plustrif</code>	plus sign with black triangle
U+02A29		⊖̣			⊖̣		<code>\commaminus</code>	minus sign with comma above
U+02A2A		⊖̣			⊖̣		<code>\minusdot</code>	minus sign with dot below
U+02A2B		⊖̇			⊖̇		<code>\minusfdots</code>	minus sign with falling dots
U+02A2C		⊖̈			⊖̈		<code>\minusrdots</code>	minus sign with rising dots
U+02A2D		⊕◐			⊕◐		<code>\opluslhrim</code>	plus sign in left half circle
U+02A2E		⊕◑			⊕◑		<code>\oplusrhrim</code>	plus sign in right half circle
U+02A2F	✖	×	✖	×	×	×	<code>\vectimes</code>	vector or cross product
U+02A30		⊗̇			⊗̇		<code>\dottimes</code>	multiplication sign with dot above
U+02A31		⊗̄			⊗̄		<code>\timesbar</code>	multiplication sign with underbar
U+02A32		⊗			⊗		<code>\btimes</code>	semidirect product with bottom closed

USV	L	S	E	P	A	N	Macro	Description
U+02A33		⌘			⌘		<code>\smashtimes</code>	smash product
U+02A34		⌘			⌘		<code>\otimeslhrim</code>	multiplication sign in left half circle
U+02A35		⌘			⌘		<code>\otimesrhrim</code>	multiplication sign in right half circle
U+02A36		⊗			⊗		<code>\otimesshat</code>	circled multiplication sign with circumflex accent
U+02A37		⊗			⊗		<code>\Otimes</code>	multiplication sign in double circle
U+02A38		⊕			⊕		<code>\odiv</code>	circled division sign
U+02A39		⊕			⊕		<code>\triangleplus</code>	plus sign in triangle
U+02A3A		⊖			⊖		<code>\triangleminus</code>	minus sign in triangle
U+02A3B		⊗			⊗		<code>\trianglerightimes</code>	multiplication sign in triangle
U+02A3C		⌋			⌋		<code>\intprod</code>	interior product
U+02A3D		⌋			⌋		<code>\intprodr</code>	righthand interior product
U+02A3E		⋈			⋈		<code>\fcmp</code>	z notation relational composition
U+02A3F	II	II	II	II	II	II	<code>\amalg<sup>(p)</sup></code>	amalgamation or coproduct
U+02A40		⋈			⋈		<code>\capdot</code>	intersection with dot
U+02A41		⋈			⋈		<code>\uminus</code>	union with minus sign
U+02A42		⋈			⋈		<code>\barcup</code>	union with overbar
U+02A43		⋈			⋈		<code>\barcap</code>	intersection with overbar
U+02A44		⋈			⋈		<code>\capwedge</code>	intersection with logical and
U+02A45		⋈			⋈		<code>\cupvee</code>	union with logical or

USV	L	S	E	P	A	N	Macro	Description
U+02A46							<code>\cupovercap</code>	union above intersection
U+02A47							<code>\capovercup</code>	intersection above union
U+02A48							<code>\cupbarcap</code>	union above bar above intersection
U+02A49							<code>\capbarcup</code>	intersection above bar above union
U+02A4A							<code>\twocups</code>	union beside and joined with union
U+02A4B							<code>\twocaps</code>	intersection beside and joined with intersection
U+02A4C							<code>\closedvarcup</code>	closed union with serifs
U+02A4D							<code>\closedvarcap</code>	closed intersection with serifs
U+02A4E							<code>\Sqcup</code>	double square intersection
U+02A4F							<code>\Sqcup</code>	double square union
U+02A50							<code>\closedvarcupsmashprod</code>	closed union with serifs and smash product
U+02A51							<code>\wedgeodot</code>	logical and with dot above
U+02A52							<code>\veeodot</code>	logical or with dot above
U+02A53							<code>\Wedge</code>	double logical and
U+02A54							<code>\Vee</code>	double logical or
U+02A55							<code>\wedgeonwedge</code>	two intersecting logical and
U+02A56							<code>\veeonvee</code>	two intersecting logical or
U+02A57							<code>\bigslantedvee</code>	sloping large or
U+02A58							<code>\bigslantedwedge</code>	sloping large and

USV	L	S	E	P	A	N	Macro	Description
U+02A5A		↗			↗		<code>\wedgemidvert</code>	logical and with middle stem
U+02A5B		↘			↘		<code>\veemidvert</code>	logical or with middle stem
U+02A5C		⌘			⌘		<code>\midbarwedge</code>	logical and with horizontal dash
U+02A5D		⌞			⌞		<code>\midbarvee</code>	logical or with horizontal dash
U+02A5E		⌘̄	⌘̄		⌘̄	⌘̄	<code>\doublebarwedge<sup>(a)</sup></code>	logical and with double overbar
U+02A5F		⌘̲	⌘̲		⌘̲	⌘̲	<code>\wedgebar</code>	logical and with underbar
U+02A60		⌘̄̄			⌘̄̄		<code>\wedgedoublebar</code>	logical and with double underbar
U+02A61		⌞̲			⌞̲		<code>\varveebar</code>	small vee with underbar
U+02A62		⌘̄̄			⌘̄̄		<code>\doublebarvee</code>	logical or with double overbar
U+02A63		⌘̲̄̄			⌘̲̄̄		<code>\veedoublebar</code>	logical or with double underbar
U+02A64		⌞⌵			⌞⌵		<code>\dsub</code>	z notation domain antirestriction
U+02A65		⌵⌞			⌵⌞		<code>\rsub</code>	z notation range antirestriction
U+02A71		⌘̲̄̄			⌘̲̄̄		<code>\eqqplus</code>	equals sign above plus sign
U+02A72		⌘̲̄̄			⌘̲̄̄		<code>\pluseqq</code>	plus sign above equals sign
U+02AF4		≡			≡		<code>\interleave</code>	triple vertical bar binary relation
U+02AF5		≡			≡		<code>\nhVvert</code>	triple vertical bar with horizontal stroke
U+02AF6		⋮			⋮		<code>\threedotcolon</code>	triple colon operator
U+02AFB		≡			≡		<code>\trslash</code>	triple solidus binary relation
U+02AFD		≡			≡		<code>\sslash</code>	double solidus operator
U+02AFE		⏏			⏏		<code>\talloblong</code>	white vertical bar

usv	L	S	E	P	A	N	Macro	Description



## 13 Ordinary symbols, \mathord

USV	L	S	E	P	A	N	Macro	Description
U+00023	#	#	#	#	#	#	\mathoctothorpe	number sign
U+00024	\$	\$	\$	\$	\$	\$	\mathdollar	dollar sign
U+00025	%	%	%	%	%	%	\mathpercent	percent sign
U+00026	&	&	&	&	&	&	\mathampersand	ampersand
U+0002E	.	.	.	.	.	.	\mathperiod	full stop, period
U+0002F	/	/	/	/	/	/	\mathslash	solidus
U+0003F	?	?	?	?	?	?	\mathquestion	question mark
U+00040	@	@	@	@	@	@	\mathatsign	commercial at
U+0005C	\	\	\	\	\	\	\backslash <sup>(p)</sup>	reverse solidus
U+000A3	£	£	£	£	£	£	\mathsterling	pound sign
U+000A5	¥	¥	¥	¥	¥	¥	\mathyen	yen sign
U+000A7	§	§	§	§	§	§	\mathsection	section symbol
U+000AC	¬	¬	¬	¬	¬	¬	\neg <sup>(p)</sup>	/neg /Inot not sign
U+000B6	¶	¶	¶	¶	¶	¶	\mathparagraph	paragraph symbol
U+001B5		Z	Z			Z	\Zbar	impedance (latin capital letter z with stroke)
U+003F6		ϵ	ϵ			ϵ	\upbackepsilon	greek reversed lunate epsilon symbol
U+02015	—	—	—	—	—	—	\horizbar	horizontal bar
U+02017	=	=	=	=	=		\twolowline	double low line (spacing)
U+02025		..			..		\enleadertwodots	double baseline dot (en leader)























































































usv	L	S	E	P	A	N	Macro	Description
U+02026	...	...	...	...	...	...	\unicodeellipsis	ellipsis (horizontal)
U+02032	'	'	'	'	'	'	\prime <sup>(p)</sup>	prime or minute, not superscripted
U+02033	"	"	"	"	"	"	\dprime	double prime or second, not superscripted
U+02034	'''	'''	'''	'''	'''	'''	\trprime	triple prime (not superscripted)
U+02035	\	\	\	\	\	\	\backprime <sup>(a)</sup>	reverse prime, not superscripted
U+02036	''	''	''	''	''	''	\backdprime	double reverse prime, not superscripted
U+02037	'''	'''	'''	'''	'''	'''	\backtrprime	triple reverse prime, not superscripted
U+02038		^					\caretinsert	caret (insertion mark)
U+0203C		!!			!!		\Exclam	double exclamation mark
U+02043		▪					\hyphenbullet	rectangle, filled (hyphen bullet)
U+02047		??					\Question	double question mark
U+02057	''''	''''	''''	''''	''''	''''	\qprime	quadruple prime, not superscripted
U+020AC	€	€	€	€	€	€	\euro	euro sign
U+020DD	◯	◯	◯	◯	◯	◯	\enclosecircle	combining enclosing circle
U+020DE	◻	◻	◻	◻	◻	◻	\enclosesquare	combining enclosing square
U+020DF	◊	◊	◊	◊	◊	◊	\enclosediamond	combining enclosing diamond
U+020E4	△	△	△	△	△	△	\enclosetriangle	combining enclosing upward pointing triangle
U+02107	ℰ	ℰ	ℰ	ℰ	ℰ	ℰ	\Eulerconst	euler constant
U+0210E	ℏ	ℏ	ℏ	ℏ	ℏ	ℏ	\Planckconst	planck constant

USV	L	S	E	P	A	N	Macro	Description
U+02127							\mho	conductance
U+02132							\Finv <sup>(a)</sup>	turned capital f
U+0213C							\Bbbpi	double-struck small pi
U+02141							\Game <sup>(a)</sup>	turned sans-serif capital g
U+02142							\sansLturned	turned sans-serif capital l
U+02143							\sansLmirrored	reversed sans-serif capital l
U+02144							\Yup	turned sans-serif capital y
U+02145							\mitBbbD	double-struck italic capital d
U+02146							\mitBbbd	double-struck italic small d
U+02147							\mitBbbe	double-struck italic small e
U+02148							\mitBbbi	double-struck italic small i
U+02149							\mitBbbj	double-struck italic small j
U+0214A							\PropertyLine	property line
U+021A8							\updownarrowbar	up down arrow with base (perpendicular)
U+021B4							\linefeed	rightwards arrow with corner downwards
U+021B5							\carriagereturn	downwards arrow with corner leftward = carriage return
U+021B8							\barovernorthwestarrow	north west arrow to long bar
U+021B9							\barleftarrowrightarrowbar	leftwards arrow to bar over rightwards arrow to bar
U+021BA							\acwopencirclearrow	anticlockwise open circle arrow
U+021BB							\cwopencirclearrow	clockwise open circle arrow

USV	L	S	E	P	A	N	Macro	Description
U+021DE		↕			↕		<code>\nHuparrow</code>	upwards arrow with double stroke
U+021DF		⇩			⇩		<code>\nHdownarrow</code>	downwards arrow with double stroke
U+021E0		↖	↖		↖	↖	<code>\leftdasharrow</code>	leftwards dashed arrow
U+021E1		↗	↗		↗	↗	<code>\updasharrow</code>	upwards dashed arrow
U+021E2		↘	↘		↘	↘	<code>\rightdasharrow</code>	rightwards dashed arrow
U+021E3		⇩	⇩		⇩	⇩	<code>\downdasharrow</code>	downwards dashed arrow
U+021E6	↖	↖	↖	↖	↖	↖	<code>\leftwhitearrow</code>	leftwards white arrow
U+021E7	↗	↗	↗	↗	↗	↗	<code>\upwhitearrow</code>	upwards white arrow
U+021E8	↘	↘	↘	↘	↘	↘	<code>\rightwhitearrow</code>	rightwards white arrow
U+021E9	⇩	⇩	⇩	⇩	⇩	⇩	<code>\downwhitearrow</code>	downwards white arrow
U+021EA		↕			↕		<code>\whitearrowupfrombar</code>	upwards white arrow from bar
U+02200	∀	∀	∀	∀	∀	∀	<code>\forall</code> <sup>(p)</sup>	for all
U+02201	∁	∁	∁	∁	∁	∁	<code>\complement</code> <sup>(a)</sup>	complement sign
U+02203	∃	∃	∃	∃	∃	∃	<code>\exists</code> <sup>(p)</sup>	at least one exists
U+02204	∄	∄	∄	∄	∄	∄	<code>\nexists</code> <sup>(a)</sup>	negated exists
U+02205	∅	∅	∅	∅	∅	∅	<code>\varnothing</code> <sup>(a)</sup>	circle, slash
U+02206	Δ	Δ	Δ	Δ	Δ	Δ	<code>\increment</code>	laplacian (delta; nabla^2)
U+0220E	■	■	■	■	■	■	<code>\QED</code>	end of proof
U+0221A	√	√	√	√	√	√	<code>\surd</code> <sup>(p)</sup>	radical
U+0221E	∞	∞	∞	∞	∞	∞	<code>\infty</code> <sup>(p)</sup>	infinity




























































USV	L	S	E	P	A	N	Macro	Description
U+0221F	↱	↲	↱	↲	↱	↲	\rightangle	right (90 degree) angle
U+02220	∠	∠	∠	∠	∠	∠	\angle <sup>(p)</sup>	angle
U+02221	⦶	⦶	⦶	⦶	⦶	⦶	\measuredangle <sup>(a)</sup>	angle-measured
U+02222	⦶	⦶	⦶	⦶	⦶	⦶	\sphericalangle <sup>(a)</sup>	angle-spherical
U+02234	∴	∴	∴	∴	∴	∴	\therefore <sup>(a)</sup>	therefore
U+02235	∵	∵	∵	∵	∵	∵	\because <sup>(a)</sup>	because
U+0223F	〰	〰	〰	〰	〰	〰	\sinewave	sine wave
U+022A4	⤴	⤴	⤴	⤴	⤴	⤴	\top <sup>(p)</sup>	top
U+022A5	⤵	⤵	⤵	⤵	⤵	⤵	\bot <sup>(p)</sup>	bottom
U+022B9	⦶	⦶	⦶	⦶	⦶	⦶	\hermitmatrix	hermitian conjugate matrix
U+022BE	⦶	⦶	⦶	⦶	⦶	⦶	\measuredrightangle	right angle-measured [with arc]
U+022BF	⦶	⦶	⦶	⦶	⦶	⦶	\varlrtriangle	right triangle
U+022EF	⋯	⋯	⋯	⋯	⋯	⋯	\unicodecdots	three dots, centered
U+02300	⌀	⌀	⌀	⌀	⌀	⌀	\diameter	diameter sign
U+02302		🏠					\house	house
U+02310	↯	↯	↯	↯	↯	↯	\invnot	reverse not
U+02311		◻					\sqlozenge	square lozenge
U+02312		⤿					\profline	profile of a line
U+02313		⤿					\profsurf	profile of a surface
U+02317		⦶					\viewdata	viewdata square
U+02319	↯	↯	↯	↯	↯	↯	\turnednot	turned not sign















































































usv	L	S	E	P	A	N	Macro	Description
U+02320							<code>\inttop</code>	top half integral
U+02321							<code>\intbottom</code>	bottom half integral
U+0232C							<code>\varhexagonlrbonds</code>	six carbon ring, corner down, double bonds lower right etc
U+02332							<code>\conictaper</code>	conical taper
U+02336							<code>\topbot</code>	top and bottom
U+02340							<code>\APLnotbackslash</code>	apl functional symbol backslash bar
U+02353							<code>\APLboxupcaret</code>	boxed up caret
U+02370							<code>\APLboxquestion</code>	boxed question mark
U+0237C							<code>\rangledownzigzagarrow</code>	right angle with downwards zigzag arrow
U+02394							<code>\hexagon</code>	horizontal benzene ring [hexagon flat open]
U+0239B							<code>\lparenuend</code>	left parenthesis upper hook
U+0239C							<code>\lparenextender</code>	left parenthesis extension
U+0239D							<code>\lparenlend</code>	left parenthesis lower hook
U+0239E							<code>\rparenuend</code>	right parenthesis upper hook
U+0239F							<code>\rparenextender</code>	right parenthesis extension
U+023A0							<code>\rparenlend</code>	right parenthesis lower hook
U+023A1							<code>\lbrackuend</code>	left square bracket upper corner

USV	L	S	E	P	A	N	Macro	Description
U+023A2							<code>\lbrackextender</code>	left square bracket extension
U+023A3							<code>\lbracklend</code>	left square bracket lower corner
U+023A4							<code>\rbrackuend</code>	right square bracket upper corner
U+023A5							<code>\rbrackextender</code>	right square bracket extension
U+023A6							<code>\rbracklend</code>	right square bracket lower corner
U+023A7							<code>\lbraceuend</code>	left curly bracket upper hook
U+023A8							<code>\lbracemid</code>	left curly bracket middle piece
U+023A9							<code>\lbracelend</code>	left curly bracket lower hook
U+023AA							<code>\vbraceextender</code>	curly bracket extension
U+023AB							<code>\rbraceuend</code>	right curly bracket upper hook
U+023AC							<code>\rbracemid</code>	right curly bracket middle piece
U+023AD							<code>\rbracelend</code>	right curly bracket lower hook
U+023AE							<code>\intextender</code>	integral extension
U+023AF							<code>\harrowextender</code>	horizontal line extension (used to extend arrows)
U+023B2							<code>\sumtop</code>	summation top
U+023B3							<code>\sumbottom</code>	summation bottom
U+023B6							<code>\bbrktbrk</code>	bottom square bracket over top square bracket





USV	L	S	E	P	A	N	Macro	Description
U+023B7	√	√	√	√	√	√	\sqrtbottom	radical symbol bottom
U+023B8							\lvboxline	left vertical box line
U+023B9							\rvboxline	right vertical box line
U+023CE		↩					\varcarriagereturn	return symbol
U+023E0	⌞	⌞		⌞	⌞		\obrbrak	top tortoise shell bracket (mathematical use)
U+023E1	⏟	⏟		⏟	⏟		\ubrbrak	bottom tortoise shell bracket (mathematical use)
U+023E2		▭					\trapezium	white trapezium
U+023E3		⬡					\benzenr	benzene ring with circle
U+023E4		—					\strns	straightness
U+023E5		▭					\fltns	flatness
U+023E6		∞					\accurrent	ac current
U+023E7		⚡					\elinters	electrical intersection
U+02422	␣	␣	␣	␣	␣	␣	\blanksymbol	blank symbol
U+02423	□	□	□	□	□	□	\mathvisiblespace	open box
U+02506		⋮					\bdtriplevdash	doubly broken vert
U+02580		■					\blockuphalf	upper half block
U+02584		■					\blocklowhalf	lower half block
U+02588	■	■		■			\blockfull	full block
U+0258c		■					\blocklefthalf	left half block
U+02590		■					\blockrighthalf	right half block



USV	L	S	E	P	A	N	Macro	Description
U+02591							<code>\blockqtrshaded</code>	25% shaded block
U+02592							<code>\blockhalfshaded</code>	50% shaded block
U+02593							<code>\blockthreeqtrshaded</code>	75% shaded block
U+025A0							<code>\mdlgblksquare</code>	square, filled
U+025A1							<code>\mdlgwhtsquare</code>	square, open
U+025A2							<code>\squoval</code>	white square with rounded corners
U+025A3							<code>\blackinwhitesquare</code>	white square containing black small square
U+025A4							<code>\squarehfill</code>	square, horizontal rule filled
U+025A5							<code>\squarevfill</code>	square, vertical rule filled
U+025A6							<code>\squarehvfill</code>	square with orthogonal crosshatch fill
U+025A7							<code>\squarenwsefill</code>	square, nw-to-se rule filled
U+025A8							<code>\squareneswfill</code>	square, ne-to-sw rule filled
U+025A9							<code>\squarecrossfill</code>	square with diagonal crosshatch fill
U+025AA							<code>\smbllksquare</code>	/blacksquare - sq bullet, filled
U+025AB							<code>\smwhtsquare</code>	white small square
U+025AC							<code>\hrectangleblack</code>	black rectangle
U+025AD							<code>\hrectangle</code>	horizontal rectangle, open
U+025AE							<code>\vrectangleblack</code>	black vertical rectangle
U+025AF							<code>\vrectangle</code>	rectangle, white (vertical)
U+025B0							<code>\parallelogramblack</code>	black parallelogram

USV	L	S	E	P	A	N	Macro	Description
U+025B1							<code>\parallelogram</code>	parallelogram, open
U+025B2							<code>\bigblacktriangleup</code>	black up-pointing triangle
U+025B4							<code>\blacktriangle<sup>(a)</sup></code>	up triangle, filled
U+025B6							<code>\blacktriangleright<sup>(a)</sup></code>	(large) right triangle, filled
U+025B8							<code>\smallblacktriangleright</code>	right triangle, filled
U+025B9							<code>\smalltriangleright</code>	right triangle, open
U+025BA							<code>\blackpointerright</code>	black right-pointing pointer
U+025BB							<code>\whitepointerright</code>	white right-pointing pointer
U+025BC							<code>\bigblacktriangledown</code>	big down triangle, filled
U+025BD							<code>\bigtriangledown<sup>(p)</sup></code>	big down triangle, open
U+025BE							<code>\blacktriangledown<sup>(a)</sup></code>	down triangle, filled
U+025BF							<code>\triangledown<sup>(a)</sup></code>	down triangle, open
U+025C0							<code>\blacktriangleleft<sup>(a)</sup></code>	(large) left triangle, filled
U+025C2							<code>\smallblacktriangleleft</code>	left triangle, filled
U+025C3							<code>\smalltriangleleft</code>	left triangle, open
U+025C4							<code>\blackpointerleft</code>	black left-pointing pointer
U+025C5							<code>\whitepointerleft</code>	white left-pointing pointer
U+025C6							<code>\mdlgblkdiamond</code>	black diamond
U+025C7							<code>\mdlgwhtdiamond</code>	white diamond; diamond, open
U+025C8							<code>\blackinwhitediamond</code>	white diamond containing black small diamond











































USV	L	S	E	P	A	N	Macro	Description
U+025C9							<code>\fisheye</code>	fish-eye
U+025CA							<code>\mdlgwhtlozenge</code>	lozenge or total mark
U+025CC							<code>\dottedcircle</code>	dotted circle
U+025CD							<code>\circlevertfill</code>	circle with vertical fill
U+025CE							<code>\bullseye</code>	bullseye
U+025CF							<code>\mdlgbkcircle</code>	circle, filled
U+025D0							<code>\circlelefthalfblack</code>	circle, filled left half [harvey ball]
U+025D1							<code>\cirlerrighthalfblack</code>	circle, filled right half
U+025D2							<code>\circlebottomhalfblack</code>	circle, filled bottom half
U+025D3							<code>\circletophalfblack</code>	circle, filled top half
U+025D4							<code>\circleurquadblack</code>	circle with upper right quadrant black
U+025D5							<code>\blackcircleulquadwhite</code>	circle with all but upper left quadrant black
U+025D6							<code>\blacklefthalfcircle</code>	left half black circle
U+025D7							<code>\blackrighthalfcircle</code>	right half black circle
U+025D8							<code>\inversebullet</code>	inverse bullet
U+025D9							<code>\inversewhitecircle</code>	inverse white circle
U+025DA							<code>\invwhiteupperhalfcircle</code>	upper half inverse white circle
U+025DB							<code>\invwhitelowerhalfcircle</code>	lower half inverse white circle
U+025DC							<code>\ularc</code>	upper left quadrant circular arc
U+025DD							<code>\urarc</code>	upper right quadrant circular arc

USV	L	S	E	P	A	N	Macro	Description
U+025DE							<code>\lrarc</code>	lower right quadrant circular arc
U+025DF							<code>\llarc</code>	lower left quadrant circular arc
U+025E0							<code>\topsemicircle</code>	upper half circle
U+025E1							<code>\botsemicircle</code>	lower half circle
U+025E2							<code>\lrblacktriangle</code>	lower right triangle, filled
U+025E3							<code>\llblacktriangle</code>	lower left triangle, filled
U+025E4							<code>\ulblacktriangle</code>	upper left triangle, filled
U+025E5							<code>\urblacktriangle</code>	upper right triangle, filled
U+025E6							<code>\smwhtcircle</code>	white bullet
U+025E7							<code>\squareleftblack</code>	square, filled left half
U+025E8							<code>\squarerightblack</code>	square, filled right half
U+025E9							<code>\squareulblack</code>	square, filled top left corner
U+025EA							<code>\squarelrblack</code>	square, filled bottom right corner
U+025EC							<code>\trianglecdot</code>	triangle with centered dot
U+025ED							<code>\triangleleftblack</code>	up-pointing triangle with left half black
U+025EE							<code>\trianglerightblack</code>	up-pointing triangle with right half black
U+025EF							<code>\lgwhtcircle</code>	large circle
U+025F0							<code>\squareulquad</code>	white square with upper left quadrant
U+025F1							<code>\squarellquad</code>	white square with lower left quadrant

USV	L	S	E	P	A	N	Macro	Description
U+025F2							<code>\squarelrquad</code>	white square with lower right quadrant
U+025F3							<code>\squareurquad</code>	white square with upper right quadrant
U+025F4							<code>\circlelquad</code>	white circle with upper left quadrant
U+025F5							<code>\circlellquad</code>	white circle with lower left quadrant
U+025F6							<code>\circlelquad</code>	white circle with lower right quadrant
U+025F7							<code>\circleurquad</code>	white circle with upper right quadrant
U+025F8							<code>\ultriangle</code>	upper left triangle
U+025F9							<code>\urtriangle</code>	upper right triangle
U+025FA							<code>\lltriangle</code>	lower left triangle
U+025FB							<code>\mdwhtsquare</code>	white medium square
U+025FC							<code>\mdblksquare</code>	black medium square
U+025FD							<code>\mdsmwhtsquare</code>	white medium small square
U+025FE							<code>\mdsmbllsquare</code>	black medium small square
U+025FF							<code>\lrtriangle</code>	lower right triangle
U+02605							<code>\bigstar<sup>(a)</sup></code>	star, filled
U+02606							<code>\bigwhitestar</code>	star, open
U+02609							<code>\astrosun</code>	sun
U+02621							<code>\danger</code>	dangerous bend (caution sign)
U+0263B							<code>\blacksmiley</code>	black smiling face



































usv	L	S	E	P	A	N	Macro	Description
U+0263C		☀					\sun	white sun with rays
U+0263D		☾					\rightmoon	first quarter moon
U+0263E		☾					\leftmoon	last quarter moon
U+02640		♀					\female	venus, female
U+02642		♂					\male	mars, male
U+02660	♠	♠	♠	♠	♠	♠	\spadesuit <sup>(p)</sup>	spades suit symbol
U+02661	♥	♥	♥	♥	♥	♥	\heartsuit <sup>(p)</sup>	heart suit symbol
U+02662	♦	♦	♦	♦	♦	♦	\diamondsuit <sup>(p)</sup>	diamond suit symbol
U+02663	♣	♣	♣	♣	♣	♣	\clubsuit <sup>(p)</sup>	club suit symbol
U+02664	♠	♠	♠	♠	♠	♠	\varspadesuit	spade, white (card suit)
U+02665	♥	♥	♥	♥	♥	♥	\varheartsuit	filled heart (card suit)
U+02666	♦	♦	♦	♦	♦	♦	\vardiamondsuit	filled diamond (card suit)
U+02667	♣	♣	♣	♣	♣	♣	\varclubsuit	club, white (card suit)
U+02669		♪			♪		\quarternote	music note (sung text sign)
U+0266A	♪	♪		♪	♪		\eighthnote	eighth note
U+0266B		♪					\twonotes	beamed eighth notes
U+0266D	♭	♭	♭	♭	♭	♭	\flat <sup>(p)</sup>	musical flat
U+0266E	♮	♮	♮	♮	♮	♮	\natural <sup>(p)</sup>	music natural
U+0266F	♯	♯	♯	♯	♯	♯	\sharp <sup>(p)</sup>	musical sharp
U+0267E		♾					\acidfree	permanent paper sign
U+02680		🎲			🎲		\dicei	die face-1


USV	L	S	E	P	A	N	Macro	Description
U+02681							<code>\diceii</code>	die face-2
U+02682							<code>\diceiii</code>	die face-3
U+02683							<code>\diceiv</code>	die face-4
U+02684							<code>\dicev</code>	die face-5
U+02685							<code>\dicevi</code>	die face-6
U+02686							<code>\circledrightdot</code>	white circle with dot right
U+02687							<code>\circledtwodots</code>	white circle with two dots
U+02688							<code>\blackcircledrightdot</code>	black circle with white dot right
U+02689							<code>\blackcircledtwodots</code>	black circle with two white dots
U+026A5							<code>\Hermaphrodite</code>	male and female sign
U+026AA							<code>\mdwhtcircle</code>	medium white circle
U+026AB							<code>\mdblkcircle</code>	medium black circle
U+026AC							<code>\mdsmwhtcircle</code>	medium small white circle
U+026B2							<code>\neuter</code>	neuter
U+02713							<code>\checkmark</code>	tick, check mark
U+02720							<code>\maltese</code>	maltese cross
U+0272A							<code>\circledstar</code>	circled white star
U+02736							<code>\varstar</code>	six pointed black star
U+0273D							<code>\dingasterisk</code>	heavy teardrop-spoked asterisk
U+0279B							<code>\draftingarrow</code>	right arrow with bold head (drafting)

usv	L	S	E	P	A	N	Macro	Description
U+027C0							<code>\threedangle</code>	three dimensional angle
U+027C1							<code>\whiteinwhitetriangle</code>	white triangle containing small white triangle
U+027C3							<code>\subsetcirc</code>	open subset
U+027C4							<code>\supsetcirc</code>	open superset
U+027CB							<code>\diagup<sup>(a)</sup></code>	mathematical rising diagonal
U+027CD							<code>\diagdown<sup>(a)</sup></code>	mathematical falling diagonal
U+027D0							<code>\diamondcdot</code>	white diamond with centred dot
U+0292B							<code>\rdiagovfdiag</code>	rising diagonal crossing falling diagonal
U+0292C							<code>\fdiagovrdiag</code>	falling diagonal crossing rising diagonal
U+0292D							<code>\seovnearrow</code>	south east arrow crossing north east arrow
U+0292E							<code>\neovsearrow</code>	north east arrow crossing south east arrow
U+0292F							<code>\fdiagovnearrow</code>	falling diagonal crossing north east arrow
U+02930							<code>\rdiagovsearrow</code>	rising diagonal crossing south east arrow
U+02931							<code>\neovnwarrow</code>	north east arrow crossing north west arrow
U+02932							<code>\nwovnearrow</code>	north west arrow crossing north east arrow
U+02934							<code>\uprightcurvearrow</code>	arrow pointing rightwards then curving upwards
U+02935							<code>\downrightcurvedarrow</code>	arrow pointing rightwards then curving downwards
U+02981							<code>\mdsmbkcircle</code>	z notation spot
























































USV	L	S	E	P	A	N	Macro	Description
U+02999		⋮			⋮		\fourvdots	dotted fence
U+0299A		⋈			⋈		\vzigzag	vertical zigzag line
U+0299B		∟̡			∟̢		\measuredangleleft	measured angle opening left
U+0299C		∟̣			∟̤		\rightanglesqr	right angle variant with square
U+0299D		∟̥			∟̦		\rightanglemdot	measured right angle with dot
U+0299E		∠̧			∠̨		\angles	angle with s inside
U+0299F		∠̩			∠̪		\angdnr	acute angle
U+029A0		∠̫			∠̬		\gtlpar	spherical angle opening left
U+029A1		∠̭			∠̮		\sphericalangleup	spherical angle opening up
U+029A2		∠̯			∠̰		\turnangle	turned angle
U+029A3		∠̱			∠̲		\revangle	reversed angle
U+029A4		∠̳			∠̴		\angleubar	angle with underbar
U+029A5		∠̵			∠̶		\revangleubar	reversed angle with underbar
U+029A6		∠̷			∠̸		\wideangledown	oblique angle opening up
U+029A7		∠̹			∠̺		\wideangleup	oblique angle opening down
U+029A8		∠̼			∠̽		\measanglerutone	measured angle with open arm ending in arrow pointing up and right
U+029A9		∠̾			∠̿		\measanglelutonw	measured angle with open arm ending in arrow pointing up and left
U+029AA		∠̿			∠̾		\measanglerdtose	measured angle with open arm ending in arrow pointing down and right
U+029AB		∠̿			∠̾		\measangleldtosw	measured angle with open arm ending in arrow pointing down and left

USV	L	S	E	P	A	N	Macro	Description
U+029AC							<code>\measangleurtoe</code>	measured angle with open arm ending in arrow pointing right and up
U+029AD							<code>\measangleultonw</code>	measured angle with open arm ending in arrow pointing left and up
U+029AE							<code>\measangledrtose</code>	measured angle with open arm ending in arrow pointing right and down
U+029AF							<code>\measangledltosw</code>	measured angle with open arm ending in arrow pointing left and down
U+029B0							<code>\revemptyset</code>	reversed empty set
U+029B1							<code>\emptysettoabar</code>	empty set with overbar
U+029B2							<code>\emptysettocirc</code>	empty set with small circle above
U+029B3							<code>\emptysettoarr</code>	empty set with right arrow above
U+029B4							<code>\emptysettoarrl</code>	empty set with left arrow above
U+029BA							<code>\obot</code>	circle divided by horizontal bar and top half divided by vertical bar
U+029BB							<code>\olcross</code>	circle with superimposed x
U+029BC							<code>\odotslashdot</code>	circled anticlockwise-rotated division sign
U+029BD							<code>\uparrowoncircle</code>	up arrow through circle
U+029BE							<code>\circledwhitebullet</code>	circled white bullet
U+029BF							<code>\circledbullet</code>	circled bullet
U+029C2							<code>\cirscir</code>	circle with small circle to the right
U+029C3							<code>\cirE</code>	circle with two horizontal strokes to the right

USV	L	S	E	P	A	N	Macro	Description
U+029C9							<code>\boxonbox</code>	two joined squares
U+029CA							<code>\triangleodot</code>	triangle with dot above
U+029CB							<code>\triangleubar</code>	triangle with underbar
U+029CC							<code>\triangles</code>	s in triangle
U+029DC							<code>\iinfin</code>	incomplete infinity
U+029DD							<code>\tieinfty</code>	tie over infinity
U+029DE							<code>\nvinfty</code>	infinity negated with vertical bar
U+029E0							<code>\laplac</code>	square with contoured outline
U+029E7							<code>\thermod</code>	thermodynamic
U+029E8							<code>\downtriangleleftblack</code>	down-pointing triangle with left half black
U+029E9							<code>\downtrianglerightblack</code>	down-pointing triangle with right half black
U+029EA							<code>\blackdiamonddownarrow</code>	black diamond with down arrow
U+029EC							<code>\circledownarrow</code>	white circle with down arrow
U+029ED							<code>\blackcircledownarrow</code>	black circle with down arrow
U+029EE							<code>\errbarsquare</code>	error-barred white square
U+029EF							<code>\errbarblacksquare</code>	error-barred black square
U+029F0							<code>\errbardiamond</code>	error-barred white diamond
U+029F1							<code>\errbarblackdiamond</code>	error-barred black diamond
U+029F2							<code>\errbarcircle</code>	error-barred white circle
U+029F3							<code>\errbarblackcircle</code>	error-barred black circle

USV	L	S	E	P	A	N	Macro	Description
U+02AE1							<code>\perps</code>	perpendicular with s
U+02AF1							<code>\topcir</code>	down tack with circle below
U+02B12							<code>\squaretopblack</code>	square with top half black
U+02B13							<code>\squarebotblack</code>	square with bottom half black
U+02B14							<code>\squareurblack</code>	square with upper right diagonal half black
U+02B15							<code>\squarellblack</code>	square with lower left diagonal half black
U+02B16							<code>\diamondleftblack</code>	diamond with left half black
U+02B17							<code>\diamondrightblack</code>	diamond with right half black
U+02B18							<code>\diamondtopblack</code>	diamond with top half black
U+02B19							<code>\diamondbotblack</code>	diamond with bottom half black
U+02B1A							<code>\dottedsquare</code>	dotted square
U+02B1B							<code>\lgblksquare</code>	black large square
U+02B1C							<code>\lgwhtsquare</code>	white large square
U+02B1D							<code>\ysmblksquare</code>	black very small square
U+02B1E							<code>\ysmwhtsquare</code>	white very small square
U+02B1F							<code>\pentagonblack</code>	black pentagon
U+02B20							<code>\pentagon</code>	white pentagon
U+02B21							<code>\varhexagon</code>	white hexagon
U+02B22							<code>\varhexagonblack</code>	black hexagon
U+02B23							<code>\hexagonblack</code>	horizontal black hexagon

USV	L	S	E	P	A	N	Macro	Description
U+02B24							<code>\lgblkcicle</code>	black large circle
U+02B25							<code>\mdblkdiamond</code>	black medium diamond
U+02B26							<code>\mdwhtdiamond</code>	white medium diamond
U+02B27							<code>\mdblklozenge</code>	black medium lozenge
U+02B28							<code>\mdwhtlozenge</code>	white medium lozenge
U+02B29							<code>\smbldiamond</code>	black small diamond
U+02B2A							<code>\smbklozenge</code>	black small lozenge
U+02B2B							<code>\smwhtlozenge</code>	white small lozenge
U+02B2C							<code>\blkhorzoval</code>	black horizontal ellipse
U+02B2D							<code>\whthorzoval</code>	white horizontal ellipse
U+02B2E							<code>\blkvertoval</code>	black vertical ellipse
U+02B2F							<code>\whtvertoval</code>	white vertical ellipse
U+02B50							<code>\medwhitestar</code>	white medium star
U+02B51							<code>\medblackstar</code>	black medium star
U+02B52							<code>\smwhitestar</code>	white small star
U+02B53							<code>\rightpentagonblack</code>	black right-pointing pentagon
U+02B54							<code>\rightpentagon</code>	white right-pointing pentagon
U+03012							<code>\postalmark</code>	postal mark
U+03030							<code>\hzigzag</code>	zigzag
U+1D7CE							<code>\mbfzero</code>	mathematical bold digit 0
U+1D7CF							<code>\mbfone</code>	mathematical bold digit 1

USV	L	S	E	P	A	N	Macro	Description
U+1D7D0	2	2	2	2	2	2	\mbftwo	mathematical bold digit 2
U+1D7D1	3	3	3	3	3	3	\mbfthree	mathematical bold digit 3
U+1D7D2	4	4	4	4	4	4	\mbffour	mathematical bold digit 4
U+1D7D3	5	5	5	5	5	5	\mbffive	mathematical bold digit 5
U+1D7D4	6	6	6	6	6	6	\mbfsix	mathematical bold digit 6
U+1D7D5	7	7	7	7	7	7	\mbfseven	mathematical bold digit 7
U+1D7D6	8	8	8	8	8	8	\mbfeight	mathematical bold digit 8
U+1D7D7	9	9	9	9	9	9	\mbfnine	mathematical bold digit 9
U+1D7D8	0	0	0	0	0	0	\Bbbzero	mathematical double-struck digit 0
U+1D7D9	1	1	1	1	1	1	\Bbbone	mathematical double-struck digit 1
U+1D7DA	2	2	2	2	2	2	\Bbbtwo	mathematical double-struck digit 2
U+1D7DB	3	3	3	3	3	3	\Bbbthree	mathematical double-struck digit 3
U+1D7DC	4	4	4	4	4	4	\Bbbfour	mathematical double-struck digit 4
U+1D7DD	5	5	5	5	5	5	\Bbbfive	mathematical double-struck digit 5
U+1D7DE	6	6	6	6	6	6	\Bbbsix	mathematical double-struck digit 6
U+1D7DF	7	7	7	7	7	7	\Bbbseven	mathematical double-struck digit 7
U+1D7E0	8	8	8	8	8	8	\Bbbeight	mathematical double-struck digit 8
U+1D7E1	9	9	9	9	9	9	\Bbbnine	mathematical double-struck digit 9
U+1D7E2	0	0	0	0	0	0	\msanszero	mathematical sans-serif digit 0

USV	L	S	E	P	A	N	Macro	Description
U+1D7E3	1	1	1	1	1	1	<code>\msansone</code>	mathematical sans-serif digit 1
U+1D7E4	2	2	2	2	2	2	<code>\msanstwo</code>	mathematical sans-serif digit 2
U+1D7E5	3	3	3	3	3	3	<code>\msansthree</code>	mathematical sans-serif digit 3
U+1D7E6	4	4	4	4	4	4	<code>\msansfour</code>	mathematical sans-serif digit 4
U+1D7E7	5	5	5	5	5	5	<code>\msansfive</code>	mathematical sans-serif digit 5
U+1D7E8	6	6	6	6	6	6	<code>\msanssix</code>	mathematical sans-serif digit 6
U+1D7E9	7	7	7	7	7	7	<code>\msansseven</code>	mathematical sans-serif digit 7
U+1D7EA	8	8	8	8	8	8	<code>\msanseight</code>	mathematical sans-serif digit 8
U+1D7EB	9	9	9	9	9	9	<code>\msansnine</code>	mathematical sans-serif digit 9
U+1D7EC	0	0	0	0	0	0	<code>\mbfsanszero</code>	mathematical sans-serif bold digit 0
U+1D7ED	1	1	1	1	1	1	<code>\mbfsansone</code>	mathematical sans-serif bold digit 1
U+1D7EE	2	2	2	2	2	2	<code>\mbfsanstwo</code>	mathematical sans-serif bold digit 2
U+1D7EF	3	3	3	3	3	3	<code>\mbfsansthree</code>	mathematical sans-serif bold digit 3
U+1D7F0	4	4	4	4	4	4	<code>\mbfsansfour</code>	mathematical sans-serif bold digit 4
U+1D7F1	5	5	5	5	5	5	<code>\mbfsansfive</code>	mathematical sans-serif bold digit 5
U+1D7F2	6	6	6	6	6	6	<code>\mbfsanssix</code>	mathematical sans-serif bold digit 6
U+1D7F3	7	7	7	7	7	7	<code>\mbfsansseven</code>	mathematical sans-serif bold digit 7
U+1D7F4	8	8	8	8	8	8	<code>\mbfsanseight</code>	mathematical sans-serif bold digit 8
U+1D7F5	9	9	9	9	9	9	<code>\mbfsansnine</code>	mathematical sans-serif bold digit 9

























































































































USV	L	S	E	P	A	N	Macro	Description
U+1D7F6	0	0	0	0	0	0	<code>\mttzero</code>	mathematical monospace digit 0
U+1D7F7	1	1	1	1	1	1	<code>\mttone</code>	mathematical monospace digit 1
U+1D7F8	2	2	2	2	2	2	<code>\mttwo</code>	mathematical monospace digit 2
U+1D7F9	3	3	3	3	3	3	<code>\mtthree</code>	mathematical monospace digit 3
U+1D7FA	4	4	4	4	4	4	<code>\mttfour</code>	mathematical monospace digit 4
U+1D7FB	5	5	5	5	5	5	<code>\mttfive</code>	mathematical monospace digit 5
U+1D7FC	6	6	6	6	6	6	<code>\mttsix</code>	mathematical monospace digit 6
U+1D7FD	7	7	7	7	7	7	<code>\mtseven</code>	mathematical monospace digit 7
U+1D7FE	8	8	8	8	8	8	<code>\mtteight</code>	mathematical monospace digit 8
U+1D7FF	9	9	9	9	9	9	<code>\mttnine</code>	mathematical monospace digit 9



## 14 Relation symbols, `\mathrel`

usv	L	S	E	P	A	N	Macro	Description
U+0003C	<	<	<	<	<	<	<code>\less</code>	less-than sign r:
U+0003D	=	=	=	=	=	=	<code>\equal</code>	equals sign r:
U+0003E	>	>	>	>	>	>	<code>\greater</code>	greater-than sign r:
U+02050		⊂			⊂		<code>\closure</code>	close up
U+02190	←	←	←	←	←	←	<code>\leftarrow<sup>(p)</sup></code>	<code>/leftarrow</code> /gets a: leftward arrow
U+02191	↑	↑	↑	↑	↑	↑	<code>\uparrow<sup>(p)</sup></code>	upward arrow
U+02192	→	→	→	→	→	→	<code>\rightarrow<sup>(p)</sup></code>	<code>/rightarrow</code> /to a: rightward arrow
U+02193	↓	↓	↓	↓	↓	↓	<code>\downarrow<sup>(p)</sup></code>	downward arrow
U+02194	↔	↔	↔	↔	↔	↔	<code>\leftrightarrow<sup>(p)</sup></code>	left and right arrow
U+02195	↕	↕	↕	↕	↕	↕	<code>\updownarrow<sup>(p)</sup></code>	up and down arrow
U+02196	↖	↖	↖	↖	↖	↖	<code>\nwarrow<sup>(p)</sup></code>	nw pointing arrow
U+02197	↗	↗	↗	↗	↗	↗	<code>\nearrow<sup>(p)</sup></code>	ne pointing arrow
U+02198	↘	↘	↘	↘	↘	↘	<code>\searrow<sup>(p)</sup></code>	se pointing arrow
U+02199	↙	↙	↙	↙	↙	↙	<code>\swarrow<sup>(p)</sup></code>	sw pointing arrow
U+0219A	↚	↚	↚	↚	↚	↚	<code>\nleftarrow<sup>(a)</sup></code>	not left arrow
U+0219B	↛	↛	↛	↛	↛	↛	<code>\nrightarrow<sup>(a)</sup></code>	not right arrow
U+0219C		↯			↯		<code>\leftwvearrow</code>	left arrow-wavy
U+0219D		↰			↰		<code>\rightwvearrow</code>	right arrow-wavy
U+0219E	↔	↔	↔	↔	↔	↔	<code>\twoheadleftarrow<sup>(a)</sup></code>	left two-headed arrow

USV	L	S	E	P	A	N	Macro	Description
U+0219F	↕	↕	↕	↕	↕	↕	<code>\twoheaduparrow</code>	up two-headed arrow
U+021A0	↔	↔	↔	↔	↔	↔	<code>\twoheadrightarrow<sup>(a)</sup></code>	right two-headed arrow
U+021A1	↕	↕	↕	↕	↕	↕	<code>\twoheaddownarrow</code>	down two-headed arrow
U+021A2	↵	↵	↵	↵	↵	↵	<code>\leftarrowtail<sup>(a)</sup></code>	left arrow-tailed
U+021A3	↶	↶	↶	↶	↶	↶	<code>\rightarrowtail<sup>(a)</sup></code>	right arrow-tailed
U+021A4	↵	↵	↵	↵	↵	↵	<code>\mapsfrom</code>	maps to, leftward
U+021A5	↶	↶	↶	↶	↶	↶	<code>\mapsup</code>	maps to, upward
U+021A6	↶	↶	↶	↶	↶	↶	<code>\mapsto<sup>(p)</sup></code>	maps to, rightward
U+021A7	↵	↵	↵	↵	↵	↵	<code>\mapsdown</code>	maps to, downward
U+021A9	↵	↵	↵	↵	↵	↵	<code>\hookleftarrow<sup>(p)</sup></code>	left arrow-hooked
U+021AA	↶	↶	↶	↶	↶	↶	<code>\hookrightarrow<sup>(p)</sup></code>	right arrow-hooked
U+021AB	↶	↶	↶	↶	↶	↶	<code>\looparrowleft<sup>(a)</sup></code>	left arrow-looped
U+021AC	↶	↶	↶	↶	↶	↶	<code>\looparrowright<sup>(a)</sup></code>	right arrow-looped
U+021AD	↔	↔	↔	↔	↔	↔	<code>\leftrightsquigarrow<sup>(a)</sup></code>	left and right arr-wavy
U+021AE	↔	↔	↔	↔	↔	↔	<code>\nletrightarrow<sup>(a)</sup></code>	not left and right arrow
U+021AF		↘			↘		<code>\downzizagarrow</code>	downwards zigzag arrow
U+021B0	↵	↵	↵	↵	↵	↵	<code>\Lsh<sup>(a)</sup></code>	/lsh a:
U+021B1	↶	↶	↶	↶	↶	↶	<code>\Rsh<sup>(a)</sup></code>	/rsh a:
U+021B2	↙	↙	↙	↙	↙	↙	<code>\Ldsh</code>	left down angled arrow
U+021B3	↘	↘	↘	↘	↘	↘	<code>\Rdsh</code>	right down angled arrow
U+021B6	↵	↵	↵	↵	↵	↵	<code>\curvearrowleft<sup>(a)</sup></code>	left curved arrow

USV	L	S	E	P	A	N	Macro	Description
U+021B7							<code>\curvearrowright<sup>(a)</sup></code>	right curved arrow
U+021BC							<code>\leftharpoonup<sup>(p)</sup></code>	left harpoon-up
U+021BD							<code>\leftharpoondown<sup>(p)</sup></code>	left harpoon-down
U+021BE							<code>\upharpoonright<sup>(a)</sup></code>	/upharpoonright /restriction a: up harpoon-right
U+021BF							<code>\upharpoonleft<sup>(a)</sup></code>	up harpoon-left
U+021C0							<code>\rightharpoonup<sup>(p)</sup></code>	right harpoon-up
U+021C1							<code>\rightharpoondown<sup>(p)</sup></code>	right harpoon-down
U+021C2							<code>\downharpoonright<sup>(a)</sup></code>	down harpoon-right
U+021C3							<code>\downharpoonleft<sup>(a)</sup></code>	down harpoon-left
U+021C4							<code>\rightleftarrows<sup>(a)</sup></code>	right arrow over left arrow
U+021C5							<code>\updownarrows</code>	up arrow, down arrow
U+021C6							<code>\leftrightarrows<sup>(a)</sup></code>	left arrow over right arrow
U+021C7							<code>\leftleftarrows<sup>(a)</sup></code>	two left arrows
U+021C8							<code>\uparrows<sup>(a)</sup></code>	two up arrows
U+021C9							<code>\rightrightarrows<sup>(a)</sup></code>	two right arrows
U+021CA							<code>\downdownarrows<sup>(a)</sup></code>	two down arrows
U+021CB							<code>\leftrightharpoons<sup>(a)</sup></code>	left harpoon over right
U+021CC							<code>\rightleftharpoons<sup>(l)</sup></code>	right harpoon over left
U+021CD							<code>\nLeftarrow<sup>(a)</sup></code>	not implied by
U+021CE							<code>\nLeftrightarrow<sup>(a)</sup></code>	not left and right double arrows

USV	L	S	E	P	A	N	Macro	Description
U+021CF	↗	↘	↙	↚	↛	↞	<code>\nrightarrow<sup>(a)</sup></code>	not implies
U+021D0	⇐	⇐	⇐	⇐	⇐	⇐	<code>\Leftarrow<sup>(p)</sup></code>	is implied by
U+021D1	⇑	⇑	⇑	⇑	⇑	⇑	<code>\Uparrow<sup>(p)</sup></code>	up double arrow
U+021D2	⇒	⇒	⇒	⇒	⇒	⇒	<code>\Rightarrow<sup>(p)</sup></code>	implies
U+021D3	⇓	⇓	⇓	⇓	⇓	⇓	<code>\Downarrow<sup>(p)</sup></code>	down double arrow
U+021D4	↔	↔	↔	↔	↔	↔	<code>\Leftrightarrow<sup>(p)</sup></code>	left and right double arrow
U+021D5	↕	↕	↕	↕	↕	↕	<code>\Updownarrow<sup>(p)</sup></code>	up and down double arrow
U+021D6	↖	↖	↖	↖	↖	↖	<code>\Nwarrow</code>	nw pointing double arrow
U+021D7	↗	↗	↗	↗	↗	↗	<code>\Nearrow</code>	ne pointing double arrow
U+021D8	↘	↘	↘	↘	↘	↘	<code>\Searrow</code>	se pointing double arrow
U+021D9	↙	↙	↙	↙	↙	↙	<code>\Swarrow</code>	sw pointing double arrow
U+021DA	⇐	⇐	⇐	⇐	⇐	⇐	<code>\Lleftarrow<sup>(a)</sup></code>	left triple arrow
U+021DB	⇒	⇒	⇒	⇒	⇒	⇒	<code>\Rrightarrow<sup>(a)</sup></code>	right triple arrow
U+021DC	↪	↪	↪	↪	↪	↪	<code>\leftsquigarrow</code>	leftwards squiggle arrow
U+021DD	↩	↩	↩	↩	↩	↩	<code>\rightsquigarrow<sup>(a)</sup></code>	rightwards squiggle arrow
U+021E4		⇐			⇐		<code>\barleftarrow</code>	leftwards arrow to bar
U+021E5		→			→		<code>\rightarrowbar</code>	rightwards arrow to bar
U+021F4		→			→		<code>\circlearrowright</code>	right arrow with small circle
U+021F5	⇓	⇓	⇓	⇓	⇓	⇓	<code>\downarrows</code>	downwards arrow leftwards of upwards arrow
U+021F6	⇒	⇒	⇒	⇒	⇒	⇒	<code>\rightthreearrows</code>	three rightwards arrows

USV	L	S	E	P	A	N	Macro	Description
U+021F7		↵			↵		<code>\nvleftarrow</code>	leftwards arrow with vertical stroke
U+021F8		➡			➡		<code>\nvrightarrow</code>	rightwards arrow with vertical stroke
U+021F9		↔			↔		<code>\nvleftrightharrow</code>	left right arrow with vertical stroke
U+021FA		⇐			⇐		<code>\nVleftarrow</code>	leftwards arrow with double vertical stroke
U+021FB		⇒			⇒		<code>\nVrightarrow</code>	rightwards arrow with double vertical stroke
U+021FC		⇔			⇔		<code>\nVleftrightharrow</code>	left right arrow with double vertical stroke
U+021FD		↤			↤		<code>\leftarrowtriangle</code>	leftwards open-headed arrow
U+021FE		➡			➡		<code>\rightarrowtriangle</code>	rightwards open-headed arrow
U+021FF		↔			↔		<code>\leftrightharrowtriangle</code>	left right open-headed arrow
U+02208	∈	∈	∈	∈	∈	∈	<code>\in<sup>(p)</sup></code>	set membership, variant
U+02209	∉	∉	∉	∉	∉	∉	<code>\notin<sup>(l)</sup></code>	negated set membership
U+0220A	∈	∈	∈	∈	∈	∈	<code>\smallin</code>	set membership (small set membership)
U+0220B	⊃	⊃	⊃	⊃	⊃	⊃	<code>\ni<sup>(p)</sup></code>	contains, variant
U+0220C	⊄	⊄	⊄	⊄	⊄	⊄	<code>\nni</code>	negated contains, variant
U+0220D	⊃	⊃	⊃	⊃	⊃	⊃	<code>\smallni</code>	/ni /owns r: contains (small contains as member)
U+0221D	∝	∝	∝	∝	∝	∝	<code>\propto<sup>(p)</sup></code>	is proportional to
U+02223							<code>\mid<sup>(p)</sup></code>	/mid r:
U+02224	⧸	⧸	⧸	⧸	⧸	⧸	<code>\nmid<sup>(a)</sup></code>	negated mid
U+02225							<code>\parallel<sup>(p)</sup></code>	parallel

usv	L	S	E	P	A	N	Macro	Description
U+02226	𐍪	𐍫	𐍬	𐍭	𐍮	𐍯	<code>\nparallel<sup>(a)</sup></code>	not parallel
U+02236	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\mathratio</code>	ratio
U+02237	𐍺𐍺	𐍻𐍻	𐍼𐍼	𐍽𐍽	𐍾𐍾	𐍿𐍿	<code>\Colon</code>	two colons
U+02239	𐍺𐍻	𐍻𐍼	𐍼𐍽	𐍽𐍾	𐍾𐍿	𐍿𐍺	<code>\dashcolon</code>	excess (:-)
U+0223A	𐍺𐍺𐍺𐍺	𐍻𐍻𐍻𐍻	𐍼𐍼𐍼𐍼	𐍽𐍽𐍽𐍽	𐍾𐍾𐍾𐍾	𐍿𐍿𐍿𐍿	<code>\dotsminusdots</code>	minus with four dots, geometric properties
U+0223B	𐍺𐍻	𐍻𐍼	𐍼𐍽	𐍽𐍾	𐍾𐍿	𐍿𐍺	<code>\kernelcontraction</code>	homothetic
U+0223C	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\sim<sup>(p)</sup></code>	similar
U+0223D	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\backsim<sup>(a)</sup></code>	reverse similar
U+02241	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\nsim<sup>(a)</sup></code>	not similar
U+02242	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\eqsim<sup>(a)</sup></code>	equals, similar
U+02243	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\simeq<sup>(p)</sup></code>	similar, equals
U+02244	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\nsime</code>	not similar, equals
U+02243	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\sime</code>	similar, equals (alias)
U+02244	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\nsimeq</code>	not similar, equals (alias)
U+02245	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\cong<sup>(l)</sup></code>	congruent with
U+02246	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\simneqq</code>	similar, not equals [vert only for 9573 entity]
U+02247	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\ncong<sup>(a)</sup></code>	not congruent with
U+02248	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\approx<sup>(p)</sup></code>	approximate
U+02249	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\napprox</code>	not approximate
U+0224A	𐍺	𐍻	𐍼	𐍽	𐍾	𐍿	<code>\approxeq<sup>(a)</sup></code>	approximate, equals

USV	L	S	E	P	A	N	Macro	Description
U+0224B	≈	≈	≈	≈	≈	≈	<code>\approxident</code>	approximately identical to
U+0224C	≍	≍	≍	≍	≍	≍	<code>\backcong</code>	all equal to
U+0224D	⋈	⋈	⋈	⋈	⋈	⋈	<code>\asymp<sup>(p)</sup></code>	asymptotically equal to
U+0224E	⋇	⋇	⋇	⋇	⋇	⋇	<code>\Bumpeq<sup>(a)</sup></code>	bumpy equals
U+0224F	⋈	⋈	⋈	⋈	⋈	⋈	<code>\bumpeq<sup>(a)</sup></code>	bumpy equals, equals
U+02250	≐	≐	≐	≐	≐	≐	<code>\doteq<sup>(l)</sup></code>	equals, single dot above
U+02251	⋮	⋮	⋮	⋮	⋮	⋮	<code>\Doteq<sup>(a)</sup></code>	/doteqdot /doteq r: equals, even dots
U+02252	≒	≒	≒	≒	≒	≒	<code>\fallingdotseq<sup>(a)</sup></code>	equals, falling dots
U+02253	≓	≓	≓	≓	≓	≓	<code>\risingdotseq<sup>(a)</sup></code>	equals, rising dots
U+02254	⋈	⋈	⋈	⋈	⋈	⋈	<code>\coloneq</code>	colon, equals
U+02255	⋈	⋈	⋈	⋈	⋈	⋈	<code>\eqcolon</code>	equals, colon
U+02256	⋈	⋈	⋈	⋈	⋈	⋈	<code>\eqcirc<sup>(a)</sup></code>	circle on equals sign
U+02257	⋈	⋈	⋈	⋈	⋈	⋈	<code>\circeq<sup>(a)</sup></code>	circle, equals
U+02258	⋈	⋈	⋈	⋈	⋈	⋈	<code>\arceq</code>	arc, equals; corresponds to
U+02259	⋈	⋈	⋈	⋈	⋈	⋈	<code>\wedgeeq</code>	corresponds to (wedge, equals)
U+0225A	⋈	⋈	⋈	⋈	⋈	⋈	<code>\veeeq</code>	logical or, equals
U+0225B	⋈	⋈	⋈	⋈	⋈	⋈	<code>\stareq</code>	star equals
U+0225C	⋈	⋈	⋈	⋈	⋈	⋈	<code>\triangleq<sup>(a)</sup></code>	triangle, equals
U+0225D	≐	≐	≐	≐	≐	≐	<code>\eqdef</code>	equals by definition
U+0225E	≐	≐	≐	≐	≐	≐	<code>\measeq</code>	measured by (m over equals)

USV	L	S	E	P	A	N	Macro	Description
U+0225F	$\stackrel{?}{=}$	$\stackrel{?}{=}$	$\stackrel{?}{=}$	$\stackrel{?}{=}$	$\stackrel{?}{=}$	$\stackrel{?}{=}$	<code>\questeq</code>	equal with questionmark
U+02260	$\neq$	$\neq$	$\neq$	$\neq$	$\neq$	$\neq$	<code>\ne<sup>(p)</sup></code>	/ne /neq r: not equal
U+02261	$\equiv$	$\equiv$	$\equiv$	$\equiv$	$\equiv$	$\equiv$	<code>\equiv<sup>(p)</sup></code>	identical with
U+02262	$\ncong$	$\ncong$	$\ncong$	$\ncong$	$\ncong$	$\ncong$	<code>\nequiv</code>	not identical with
U+02263	$\equiv$	$\equiv$	$\equiv$	$\equiv$	$\equiv$	$\equiv$	<code>\Equiv</code>	strict equivalence (4 lines)
U+02264	$\leq$	$\leq$	$\leq$	$\leq$	$\leq$	$\leq$	<code>\leq<sup>(p)</sup></code>	/leq /le r: less-than-or-equal
U+02265	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	<code>\geq<sup>(p)</sup></code>	/geq /ge r: greater-than-or-equal
U+02266	$\leq$	$\leq$	$\leq$	$\leq$	$\leq$	$\leq$	<code>\leqq<sup>(a)</sup></code>	less, double equals
U+02267	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	<code>\geqq<sup>(a)</sup></code>	greater, double equals
U+02268	$\nleq$	$\nleq$	$\nleq$	$\nleq$	$\nleq$	$\nleq$	<code>\nleqq<sup>(a)</sup></code>	less, not double equals
U+02269	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	<code>\ngqq<sup>(a)</sup></code>	greater, not double equals
U+0226A	$\ll$	$\ll$	$\ll$	$\ll$	$\ll$	$\ll$	<code>\ll<sup>(p)</sup></code>	much less than, type 2
U+0226B	$\gg$	$\gg$	$\gg$	$\gg$	$\gg$	$\gg$	<code>\gg<sup>(p)</sup></code>	much greater than, type 2
U+0226C	$\between$	$\between$	$\between$	$\between$	$\between$	$\between$	<code>\between<sup>(a)</sup></code>	between
U+0226D	$\nasymp$	$\nasymp$	$\nasymp$	$\nasymp$	$\nasymp$	$\nasymp$	<code>\nasymp</code>	not asymptotically equal to
U+0226E	$\nless$	$\nless$	$\nless$	$\nless$	$\nless$	$\nless$	<code>\nless<sup>(a)</sup></code>	not less-than
U+0226F	$\ngtr$	$\ngtr$	$\ngtr$	$\ngtr$	$\ngtr$	$\ngtr$	<code>\ngtr<sup>(a)</sup></code>	not greater-than
U+02270	$\nleq$	$\nleq$	$\nleq$	$\nleq$	$\nleq$	$\nleq$	<code>\nleq<sup>(a)</sup></code>	not less-than-or-equal
U+02271	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	$\ngeq$	<code>\ngeq<sup>(a)</sup></code>	not greater-than-or-equal
U+02272	$\lesssim$	$\lesssim$	$\lesssim$	$\lesssim$	$\lesssim$	$\lesssim$	<code>\lesssim<sup>(a)</sup></code>	less, similar






































































































































usv	L	S	E	P	A	N	Macro	Description
U+02273	➤	➤	➤	➤	➤	➤	<code>\gtrsim<sup>(a)</sup></code>	greater, similar
U+02274	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\nlessim</code>	not less, similar
U+02275	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\ngtrsim</code>	not greater, similar
U+02276	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\lessgtr<sup>(a)</sup></code>	less, greater
U+02277	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\gtrless<sup>(a)</sup></code>	greater, less
U+02278	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\nlessgtr</code>	not less, greater
U+02279	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\ngtrless</code>	not greater, less
U+0227A	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\prec<sup>(p)</sup></code>	precedes
U+0227B	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\succ<sup>(p)</sup></code>	succeeds
U+0227C	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\preccurlyeq<sup>(a)</sup></code>	precedes, curly equals
U+0227D	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\succcurlyeq<sup>(a)</sup></code>	succeeds, curly equals
U+0227E	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\precsim<sup>(a)</sup></code>	precedes, similar
U+0227F	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\succsim<sup>(a)</sup></code>	succeeds, similar
U+02280	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\nprec<sup>(a)</sup></code>	not precedes
U+02281	➤̸	➤̸	➤̸	➤̸	➤̸	➤̸	<code>\nsucc<sup>(a)</sup></code>	not succeeds
U+02282	⊂	⊂	⊂	⊂	⊂	⊂	<code>\subset<sup>(p)</sup></code>	subset or is implied by
U+02283	⊃	⊃	⊃	⊃	⊃	⊃	<code>\supset<sup>(p)</sup></code>	superset or implies
U+02284	⊄	⊄	⊄	⊄	⊄	⊄	<code>\nsubset</code>	not subset, variant [slash negation]
U+02285	⊄	⊄	⊄	⊄	⊄	⊄	<code>\nsupset</code>	not superset, variant [slash negation]
U+02286	⊆	⊆	⊆	⊆	⊆	⊆	<code>\subseteq<sup>(p)</sup></code>	subset, equals

USV	L	S	E	P	A	N	Macro	Description
U+02287	⊃	⊃	⊃	⊃	⊃	⊃	<code>\supseteq<sup>(p)</sup></code>	superset, equals
U+02288	⊄	⊄	⊄	⊄	⊄	⊄	<code>\nsubseteq<sup>(a)</sup></code>	not subset, equals
U+02289	⊇	⊇	⊇	⊇	⊇	⊇	<code>\nsupseteq<sup>(a)</sup></code>	not superset, equals
U+0228A	⊈	⊈	⊈	⊈	⊈	⊈	<code>\subsetneq<sup>(a)</sup></code>	subset, not equals
U+0228B	⊉	⊉	⊉	⊉	⊉	⊉	<code>\supsetneq<sup>(a)</sup></code>	superset, not equals
U+0228F	⊐	⊐	⊐	⊐	⊐	⊐	<code>\sqsubset</code>	square subset
U+02290	⊑	⊑	⊑	⊑	⊑	⊑	<code>\sqsupset</code>	square superset
U+02291	⊒	⊒	⊒	⊒	⊒	⊒	<code>\sqsubseteq<sup>(p)</sup></code>	square subset, equals
U+02292	⊓	⊓	⊓	⊓	⊓	⊓	<code>\sqsupseteq<sup>(p)</sup></code>	square superset, equals
U+022A2	⊢	⊢	⊢	⊢	⊢	⊢	<code>\vdash<sup>(p)</sup></code>	vertical, dash
U+022A3	⊣	⊣	⊣	⊣	⊣	⊣	<code>\dashv<sup>(p)</sup></code>	dash, vertical
U+022A6	⊤	⊤	⊤	⊤	⊤	⊤	<code>\assert</code>	assertion (vertical, short dash)
U+022A7	⊦	⊦	⊦	⊦	⊦	⊦	<code>\models<sup>(p)</sup></code>	models (vertical, short double dash)
U+022A8	⊧	⊧	⊧	⊧	⊧	⊧	<code>\VDash<sup>(a)</sup></code>	vertical, double dash
U+022A9	⊨	⊨	⊨	⊨	⊨	⊨	<code>\Vdash<sup>(a)</sup></code>	double vertical, dash
U+022AA	⊩	⊩	⊩	⊩	⊩	⊩	<code>\Vvdash<sup>(a)</sup></code>	triple vertical, dash
U+022AB	⊪	⊪	⊪	⊪	⊪	⊪	<code>\VDash</code>	double vert, double dash
U+022AC	⊫	⊫	⊫	⊫	⊫	⊫	<code>\nvdash<sup>(a)</sup></code>	not vertical, dash
U+022AD	⊬	⊬	⊬	⊬	⊬	⊬	<code>\nvDash<sup>(a)</sup></code>	not vertical, double dash
U+022AE	⊭	⊭	⊭	⊭	⊭	⊭	<code>\nVdash<sup>(a)</sup></code>	not double vertical, dash

USV	L	S	E	P	A	N	Macro	Description
U+022AF							<code>\nVDash<sup>(a)</sup></code>	not double vert, double dash
U+022B0							<code>\prurel</code>	element precedes under relation
U+022B1							<code>\scurel</code>	succeeds under relation
U+022B2							<code>\vartriangleleft<sup>(a)</sup></code>	left triangle, open, variant
U+022B3							<code>\vartriangleright<sup>(a)</sup></code>	right triangle, open, variant
U+022B4							<code>\trianglelefteq<sup>(a)</sup></code>	left triangle, equals
U+022B5							<code>\trianglerighteq<sup>(a)</sup></code>	right triangle, equals
U+022B6							<code>\origof</code>	original of
U+022B7							<code>\imageof</code>	image of
U+022B8							<code>\multimap<sup>(a)</sup></code>	/multimap a:
U+022C8							<code>\bowtie<sup>(p)</sup></code>	bowtie
U+022CD							<code>\backsimeq<sup>(a)</sup></code>	reverse similar, equals
U+022D0							<code>\Subset<sup>(a)</sup></code>	double subset
U+022D1							<code>\Supset<sup>(a)</sup></code>	double superset
U+022D4							<code>\pitchfork<sup>(a)</sup></code>	pitchfork
U+022D5							<code>\equalparallel</code>	parallel, equal; equal or parallel
U+022D6							<code>\lessdot<sup>(a)</sup></code>	less than, with dot
U+022D7							<code>\gtrdot<sup>(a)</sup></code>	greater than, with dot
U+022D8							<code>\lll<sup>(a)</sup></code>	/ll /lll /llless r: triple less-than
U+022D9							<code>\ggg<sup>(a)</sup></code>	/ggg /gg /gggr r: triple greater-than

USV	L	S	E	P	A	N	Macro	Description
U+022DA	↵	↶	↷	↸	↹	↺	<code>\lesseqgtr<sup>(a)</sup></code>	less, equals, greater
U+022DB	↵	↶	↷	↸	↹	↻	<code>\gtreqless<sup>(a)</sup></code>	greater, equals, less
U+022DC	↵	↶	↷	↸	↹	↼	<code>\eqless</code>	equal-or-less
U+022DD	↵	↶	↷	↸	↹	↽	<code>\eqgtr</code>	equal-or-greater
U+022DE	↵	↶	↷	↸	↹	↷	<code>\curlyeqprec<sup>(a)</sup></code>	curly equals, precedes
U+022DF	↵	↶	↷	↸	↹	↸	<code>\curlyeqsucc<sup>(a)</sup></code>	curly equals, succeeds
U+022E0	↵	↶	↷	↸	↹	↹	<code>\nprec curlyeq</code>	not precedes, curly equals
U+022E1	↵	↶	↷	↸	↹	↹	<code>\nsucc curlyeq</code>	not succeeds, curly equals
U+022E2	⊈	⊆	⊇	⊈	⊆	⊆	<code>\nsqsubsetq</code>	not, square subset, equals
U+022E3	⊈	⊆	⊇	⊈	⊆	⊈	<code>\nsqsupsetq</code>	not, square superset, equals
U+022E4	⊈	⊆	⊇	⊈	⊆	⊆	<code>\sqsubsetneq</code>	square subset, not equals
U+022E5	⊈	⊆	⊇	⊈	⊆	⊆	<code>\sqsupsetneq</code>	square superset, not equals
U+022E6	≲	≲	≲	≲	≲	≲	<code>\lnsim<sup>(a)</sup></code>	less, not similar
U+022E7	≳	≳	≳	≳	≳	≳	<code>\gnsim<sup>(a)</sup></code>	greater, not similar
U+022E8	≲	≲	≲	≲	≲	≲	<code>\precnsim<sup>(a)</sup></code>	precedes, not similar
U+022E9	≲	≲	≲	≲	≲	≲	<code>\succnsim<sup>(a)</sup></code>	succeeds, not similar
U+022EA	⊄	⊆	⊇	⊈	⊆	⊆	<code>\nvartriangleleft</code>	not left triangle
U+022EB	⊄	⊆	⊇	⊈	⊆	⊆	<code>\nvartriangleright</code>	not right triangle
U+022EC	⊄	⊆	⊇	⊈	⊆	⊆	<code>\ntrianglelefteq<sup>(a)</sup></code>	not left triangle, equals
U+022ED	⊄	⊆	⊇	⊈	⊆	⊆	<code>\ntrianglerighteq<sup>(a)</sup></code>	not right triangle, equals
U+022EE	⋮	⋮	⋮	⋮	⋮	⋮	<code>\vdots<sup>(p)</sup></code>	vertical ellipsis

USV	L	S	E	P	A	N	Macro	Description
U+022F0							<code>\adots</code>	three dots, ascending
U+022F1							<code>\ddots<sup>(p)</sup></code>	three dots, descending
U+022F2							<code>\disin</code>	element of with long horizontal stroke
U+022F3							<code>\varisins</code>	element of with vertical bar at end of horizontal stroke
U+022F4							<code>\isins</code>	small element of with vertical bar at end of horizontal stroke
U+022F5							<code>\isindot</code>	element of with dot above
U+022F6							<code>\varisinobar</code>	element of with overbar
U+022F7							<code>\isinobar</code>	small element of with overbar
U+022F8							<code>\isinvb</code>	element of with underbar
U+022F9							<code>\isinE</code>	element of with two horizontal strokes
U+022FA							<code>\nisd</code>	contains with long horizontal stroke
U+022FB							<code>\varnis</code>	contains with vertical bar at end of horizontal stroke
U+022FC							<code>\nis</code>	small contains with vertical bar at end of horizontal stroke
U+022FD							<code>\varniobar</code>	contains with overbar
U+022FE							<code>\niobar</code>	small contains with overbar
U+022FF							<code>\bagmember</code>	z notation bag membership
U+02322							<code>\frown<sup>(p)</sup></code>	down curve
U+02323							<code>\smile<sup>(p)</sup></code>	up curve
U+0233F							<code>\APLnotslash</code>	solidus, bar through (apl functional symbol slash bar)

USV	L	S	E	P	A	N	Macro	Description
U+025B5							<code>\vartriangle<sup>(a)</sup></code>	/triangle - up triangle, open
U+027C2							<code>\perp<sup>(p)</sup></code>	perpendicular
U+027C8							<code>\bsolhsb</code>	reverse solidus preceding subset
U+027C9							<code>\suphsol</code>	superset preceding solidus
U+027D2							<code>\upin</code>	element of opening upwards
U+027D3							<code>\pullback</code>	lower right corner with dot
U+027D4							<code>\pushout</code>	upper left corner with dot
U+027DA							<code>\DashVDash</code>	left and right double turnstile
U+027DB							<code>\dashVdash</code>	left and right tack
U+027DC							<code>\multimapinv</code>	left multimap
U+027DD							<code>\vlongdash</code>	long left tack
U+027DE							<code>\longdashv</code>	long right tack
U+027DF							<code>\cirbot</code>	up tack with circle above
U+027F0							<code>\UUparrow</code>	upwards quadruple arrow
U+027F1							<code>\DDownarrow</code>	downwards quadruple arrow
U+027F2							<code>\acwgapcirculararrow</code>	anticlockwise gapped circle arrow
U+027F3							<code>\cwgapcirculararrow</code>	clockwise gapped circle arrow
U+027F4							<code>\rightarrowonoplus</code>	right arrow with circled plus
U+027F5							<code>\longleftarrow<sup>(p)</sup></code>	long leftwards arrow
U+027F6							<code>\longrightarrow<sup>(p)</sup></code>	long rightwards arrow






USV	L	S	E	P	A	N	Macro	Description
U+027F7							<code>\longlefttrightarrow<sup>(p)</sup></code>	long left right arrow
U+027F8							<code>\Longleftarrow<sup>(p)</sup></code>	long leftwards double arrow
U+027F9							<code>\Longrightarrow<sup>(p)</sup></code>	long rightwards double arrow
U+027FA							<code>\Longlefttrightarrow<sup>(p)</sup></code>	long left right double arrow
U+027FB							<code>\longmapsfrom</code>	long leftwards arrow from bar
U+027FC							<code>\longmapsto<sup>(p)</sup></code>	long rightwards arrow from bar
U+027FD							<code>\Longmapsfrom</code>	long leftwards double arrow from bar
U+027FE							<code>\Longmapsto</code>	long rightwards double arrow from bar
U+027FF							<code>\longrightsquigarrow</code>	long rightwards squiggle arrow
U+02900							<code>\nvtwoheadrightarrow</code>	rightwards two-headed arrow with vertical stroke
U+02901							<code>\nVtwoheadrightarrow</code>	rightwards two-headed arrow with double vertical stroke
U+02902							<code>\nvLeftarrow</code>	leftwards double arrow with vertical stroke
U+02903							<code>\nvRightarrow</code>	rightwards double arrow with vertical stroke
U+02904							<code>\nvLefttrightarrow</code>	left right double arrow with vertical stroke
U+02905							<code>\twoheadmapsto</code>	rightwards two-headed arrow from bar
U+02906							<code>\Mapsfrom</code>	leftwards double arrow from bar
U+02907							<code>\Mapsto</code>	rightwards double arrow from bar
U+02908							<code>\downarrowbarred</code>	downwards arrow with horizontal stroke

usv	L	S	E	P	A	N	Macro	Description
U+02909		↱			↱		\uparrowbarred	upwards arrow with horizontal stroke
U+0290A		↗			↗		\Uparrow	upwards triple arrow
U+0290B		↘			↘		\Ddownarrow	downwards triple arrow
U+0290C		↔			↔		\lefttbkarrow	leftwards double dash arrow
U+0290D		↔			↔		\righttbkarrow	rightwards double dash arrow
U+0290E		↔			↔		\leftdbkarrow	leftwards triple dash arrow
U+0290F		↔			↔		\dbkarrow	rightwards triple dash arrow
U+02910		↔			↔		\drbkarrow	rightwards two-headed triple dash arrow
U+02911		→			→		\rightdotarrow	rightwards arrow with dotted stem
U+02912		↑			↑		\baruparrow	upwards arrow to bar
U+02913		↓			↓		\downarrowbar	downwards arrow to bar
U+02914		↗			↗		\nvrightarrowtail	rightwards arrow with tail with vertical stroke
U+02915		↗			↗		\nVrightarrowtail	rightwards arrow with tail with double vertical stroke
U+02916		↗			↗		\twoheadrightarrowtail	rightwards two-headed arrow with tail
U+02917		↗			↗		\nvtwoheadrightarrowtail	rightwards two-headed arrow with tail with vertical stroke
U+02918		↗			↗		\nVtwoheadrightarrowtail	rightwards two-headed arrow with tail with double vertical stroke
U+02919		↗			↗		\lefttail	leftwards arrow-tail
U+0291A		↗			↗		\righttail	rightwards arrow-tail



usv	L	S	E	P	A	N	Macro	Description
U+0291B		←←			←←		\leftdbltail	leftwards double arrow-tail
U+0291C		→→			→→		\rightdbltail	rightwards double arrow-tail
U+0291D		↖			↖		\diamondleftarrow	leftwards arrow to black diamond
U+0291E		↗			↗		\rightarrowdiamond	rightwards arrow to black diamond
U+0291F		↖̄			↖̄		\diamondleftarrowbar	leftwards arrow from bar to black diamond
U+02920		↗̄			↗̄		\barrightarrowdiamond	rightwards arrow from bar to black diamond
U+02921		↖↗			↖↗		\nwsearrow	north west and south east arrow
U+02922		↗↖			↗↖		\neswarrow	north east and south west arrow
U+02923		↖↘			↖↘		\hknwarrow	north west arrow with hook
U+02924		↗↙			↗↙		\hknearrow	north east arrow with hook
U+02925		↘↖			↘↖		\hksearrow	south east arrow with hook
U+02926		↙↗			↙↗		\hkswarrow	south west arrow with hook
U+02927		↖↗			↖↗		\tona	north west arrow and north east arrow
U+02928		↗↘			↗↘		\toea	north east arrow and south east arrow
U+02929		↘↙			↘↙		\tosa	south east arrow and south west arrow
U+0292A		↙↖			↙↖		\towa	south west arrow and north west arrow
U+02933		↗~	↘~		↗~	↗~	\rightcurvedarrow	wave arrow pointing directly right
U+02936		↙~	↘~		↙~		\leftdowncurvedarrow	arrow pointing downwards then curving leftwards

usv	L	S	E	P	A	N	Macro	Description
U+02937							<code>\rightrightcurvedarrow</code>	arrow pointing downwards then curving rightwards
U+02938							<code>\cwrightarccarrow</code>	right-side arc clockwise arrow
U+02939							<code>\acwleftarccarrow</code>	left-side arc anticlockwise arrow
U+0293A							<code>\acwoverarccarrow</code>	top arc anticlockwise arrow
U+0293B							<code>\acwunderarccarrow</code>	bottom arc anticlockwise arrow
U+0293C							<code>\curvearrowrightminus</code>	top arc clockwise arrow with minus
U+0293D							<code>\curvearrowleftplus</code>	top arc anticlockwise arrow with plus
U+0293E							<code>\cwundercurvearrow</code>	lower right semicircular clockwise arrow
U+0293F							<code>\ccwundercurvearrow</code>	lower left semicircular anticlockwise arrow
U+02940							<code>\acwcirclearrow</code>	anticlockwise closed circle arrow
U+02941							<code>\cwcirclearrow</code>	clockwise closed circle arrow
U+02942							<code>\rightarrowshortleftarrow</code>	rightwards arrow above short leftwards arrow
U+02943							<code>\leftarrowshortrightarrow</code>	leftwards arrow above short rightwards arrow
U+02944							<code>\shortrightarrowleftarrow</code>	short rightwards arrow above leftwards arrow
U+02945							<code>\rightarrowplus</code>	rightwards arrow with plus below
U+02946							<code>\leftarrowplus</code>	leftwards arrow with plus below
U+02947							<code>\rightarrowx</code>	rightwards arrow through x
U+02948							<code>\leftrightarrowcircle</code>	left right arrow through small circle

usv	L	S	E	P	A	N	Macro	Description
U+02949							<code>\twoheaduparrowcircle</code>	upwards two-headed arrow from small circle
U+0294A							<code>\leftrightharpoonupdown</code>	left barb up right barb down harpoon
U+0294B							<code>\leftrightharpoondownup</code>	left barb down right barb up harpoon
U+0294C							<code>\updownharpoonrightleft</code>	up barb right down barb left harpoon
U+0294D							<code>\updownharpoonleftright</code>	up barb left down barb right harpoon
U+0294E							<code>\leftrightharpoonupup</code>	left barb up right barb up harpoon
U+0294F							<code>\updownharpoonrightright</code>	up barb right down barb right harpoon
U+02950							<code>\leftrightharpoondowndown</code>	left barb down right barb down harpoon
U+02951							<code>\updownharpoonleftleft</code>	up barb left down barb left harpoon
U+02952							<code>\barleftharpoonup</code>	leftwards harpoon with barb up to bar
U+02953							<code>\rightharpoonupbar</code>	rightwards harpoon with barb up to bar
U+02954							<code>\barupharpoonright</code>	upwards harpoon with barb right to bar
U+02955							<code>\downharpoonrightbar</code>	downwards harpoon with barb right to bar
U+02956							<code>\barleftharpoondown</code>	leftwards harpoon with barb down to bar
U+02957							<code>\rightharpoondownbar</code>	rightwards harpoon with barb down to bar
U+02958							<code>\barupharpoonleft</code>	upwards harpoon with barb left to bar

usv	L	S	E	P	A	N	Macro	Description
U+02959		↓			↓		<code>\downharpoonleftbar</code>	downwards harpoon with barb left to bar
U+0295A		←			←		<code>\leftharpoonupbar</code>	leftwards harpoon with barb up from bar
U+0295B		→			→		<code>\rightharpoonupbar</code>	rightwards harpoon with barb up from bar
U+0295C		↑			↑		<code>\upharpoonrightbar</code>	upwards harpoon with barb right from bar
U+0295D		↓			↓		<code>\bardownharpoonright</code>	downwards harpoon with barb right from bar
U+0295E		←			←		<code>\leftharpoondownbar</code>	leftwards harpoon with barb down from bar
U+0295F		→			→		<code>\rightharpoondownbar</code>	rightwards harpoon with barb down from bar
U+02960		↑			↑		<code>\upharpoonleftbar</code>	upwards harpoon with barb left from bar
U+02961		↓			↓		<code>\bardownharpoonleft</code>	downwards harpoon with barb left from bar
U+02962		⇐			⇐		<code>\leftharpoonsupdown</code>	leftwards harpoon with barb up above leftwards harpoon with barb down
U+02963		⇑			⇑		<code>\upharpoonsleftright</code>	upwards harpoon with barb left beside upwards harpoon with barb right
U+02964		⇒			⇒		<code>\rightharpoonsupdown</code>	rightwards harpoon with barb up above rightwards harpoon with barb down
U+02965		⇓			⇓		<code>\downharpoonsleftright</code>	downwards harpoon with barb left beside downwards harpoon with barb right
U+02966		⇐			⇐		<code>\leftrightharpoonsup</code>	leftwards harpoon with barb up above rightwards harpoon with barb up
U+02967		⇓			⇓		<code>\leftrightharpoonsdown</code>	leftwards harpoon with barb down above rightwards harpoon with barb down

usv	L	S	E	P	A	N	Macro	Description
U+02968		⇒			⇨		<code>\rightleftharpoonsup</code>	rightwards harpoon with barb up above leftwards harpoon with barb up
U+02969		⇨			⇩		<code>\rightleftharpoonsdown</code>	rightwards harpoon with barb down above leftwards harpoon with barb down
U+0296A		⇐			⇨		<code>\leftharpoonupdash</code>	leftwards harpoon with barb up above long dash
U+0296B		⇐			⇩		<code>\dashleftharpoontdown</code>	leftwards harpoon with barb down below long dash
U+0296C		⇒			⇒		<code>\rightharpoonupdash</code>	rightwards harpoon with barb up above long dash
U+0296D		⇒			⇩		<code>\dashrightharpoontdown</code>	rightwards harpoon with barb down below long dash
U+0296E		↕			↕		<code>\updownharpoonsleftright</code>	upwards harpoon with barb left beside downwards harpoon with barb right
U+0296F		↕			↕		<code>\downupharpoonsleftright</code>	downwards harpoon with barb left beside upwards harpoon with barb right
U+02970		⇒			⇒		<code>\rightimply</code>	right double arrow with rounded head
U+02971		⇒			⇒		<code>\equalrightarrow</code>	equals sign above rightwards arrow
U+02972		⇒			⇒		<code>\similarrightarrow</code>	tilde operator above rightwards arrow
U+02973		⇐			⇐		<code>\leftarrowsimilar</code>	leftwards arrow above tilde operator
U+02974		⇒			⇒		<code>\rightarrowsimilar</code>	rightwards arrow above tilde operator
U+02975		⇒			⇒		<code>\rightarrowapprox</code>	rightwards arrow above almost equal to
U+02976		⇐			⇐		<code>\ltlarr</code>	less-than above leftwards arrow
U+02977		⇐			⇐		<code>\leftarrowless</code>	leftwards arrow through less-than

USV	L	S	E	P	A	N	Macro	Description
U+02978		➤			➤		<code>\gtrarr</code>	greater-than above rightwards arrow
U+02979		⊆➤			⊆➤		<code>\subrarr</code>	subset above rightwards arrow
U+0297A		⊆⇐			⊆⇐		<code>\leftarrowsubset</code>	leftwards arrow through subset
U+0297B		⊇⇐			⊇⇐		<code>\suplarr</code>	superset above leftwards arrow
U+0297C		↵			↵		<code>\leftfishtail</code>	left fish tail
U+0297D		↶			↶		<code>\rightfishtail</code>	right fish tail
U+0297E		↗			↗		<code>\upfishtail</code>	up fish tail
U+0297F		↘			↘		<code>\downfishtail</code>	down fish tail
U+02982		⋈			⋈		<code>\typecolon</code>	z notation type colon
U+029CE		⚊▷			⚊▷		<code>\rtriltri</code>	right triangle above left triangle
U+029CF		◁⚊			◁⚊		<code>\ltrivb</code>	left triangle beside vertical bar
U+029D0		⚊▷			⚊▷		<code>\vbrtri</code>	vertical bar beside right triangle
U+029D1		⌘			⌘		<code>\lfbowtie</code>	left black bowtie
U+029D2		⌘			⌘		<code>\rfbowtie</code>	right black bowtie
U+029D3		⌘			⌘		<code>\fbowtie</code>	black bowtie
U+029D4		⌘			⌘		<code>\lftimes</code>	left black times
U+029D5		⌘			⌘		<code>\rftimes</code>	right black times
U+029DF		↔			↔		<code>\dualmap</code>	double-ended multimap
U+029E1		⩴			⩴		<code>\lrtriangleeq</code>	increases as
U+029E3		≐			≐		<code>\eparsl</code>	equals sign and slanted parallel

USV	L	S	E	P	A	N	Macro	Description
U+029E4		$\tilde{\#}$			$\#$		<code>\smeparsl</code>	equals sign and slanted parallel with tilde above
U+029E5		$\#$			$\#$		<code>\eqvparsl</code>	identical to and slanted parallel
U+029E6		$\mathbb{H}$			$\mathbb{H}$		<code>\gleichstark</code>	gleich stark
U+029F4		$\dot{\rightarrow}$			$\dot{\rightarrow}$		<code>\ruledelayed</code>	rule-delayed
U+02A59		$\mathbb{X}$			$\mathbb{X}$		<code>\veeonwedge</code>	logical or overlapping logical and
U+02A66		$\dot{=}$			$\dot{=}$		<code>\eqdot</code>	equals sign with dot below
U+02A67		$\dot{=}$			$\dot{=}$		<code>\dotequiv</code>	identical with dot above
U+02A68		$\equiv$			$\equiv$		<code>\equivVert</code>	triple horizontal bar with double vertical stroke
U+02A69		$\equiv$			$\equiv$		<code>\equivVvert</code>	triple horizontal bar with triple vertical stroke
U+02A6A		$\sim$			$\sim$		<code>\dotsim</code>	tilde operator with dot above
U+02A6B		$\sim$			$\sim$		<code>\simrdots</code>	tilde operator with rising dots
U+02A6C		$\approx$			$\approx$		<code>\simminusim</code>	similar minus similar
U+02A6D		$\dot{\approx}$			$\dot{\approx}$		<code>\congdot</code>	congruent with dot above
U+02A6E		$\equiv$			$\equiv$		<code>\asteq</code>	equals with asterisk
U+02A6F		$\hat{\approx}$			$\hat{\approx}$		<code>\hatapprox</code>	almost equal to with circumflex accent
U+02A70		$\approx$			$\approx$		<code>\approxpeq</code>	approximately equal or equal to
U+02A73		$\approx$			$\approx$		<code>\eqqsim</code>	equals sign above tilde operator
U+02A74		$\equiv$			$\equiv$		<code>\Coloneq</code>	double colon equal
U+02A75		$\equiv$			$\equiv$		<code>\eqeq</code>	two consecutive equals signs

USV	L	S	E	P	A	N	Macro	Description
U+02A76		===			===		<code>\eqseq</code>	three consecutive equals signs
U+02A77		⋮			⋮		<code>\ddotseq</code>	equals sign with two dots above and two dots below
U+02A78		⋮			⋮		<code>\equivDD</code>	equivalent with four dots above
U+02A79		⋈			⋈		<code>\ltcir</code>	less-than with circle inside
U+02A7A		⋉			⋉		<code>\gtcir</code>	greater-than with circle inside
U+02A7B		⋈?			⋈?		<code>\ltquest</code>	less-than with question mark above
U+02A7C		⋉?			⋉?		<code>\gtquest</code>	greater-than with question mark above
U+02A7D	⋈	⋈	⋈	⋈	⋈	⋈	<code>\leqslant<sup>(a)</sup></code>	less-than or slanted equal to
U+02A7E	⋉	⋉	⋉	⋉	⋉	⋉	<code>\geqslant<sup>(a)</sup></code>	greater-than or slanted equal to
U+02A7F		⋈			⋈		<code>\lesdot</code>	less-than or slanted equal to with dot inside
U+02A80		⋉			⋉		<code>\gesdot</code>	greater-than or slanted equal to with dot inside
U+02A81		⋈			⋈		<code>\lesdoto</code>	less-than or slanted equal to with dot above
U+02A82		⋉			⋉		<code>\gesdoto</code>	greater-than or slanted equal to with dot above
U+02A83		⋈			⋈		<code>\lesdotor</code>	less-than or slanted equal to with dot above right
U+02A84		⋉			⋉		<code>\gesdoto1</code>	greater-than or slanted equal to with dot above left
U+02A85	⋈	⋈	⋈	⋈	⋈	⋈	<code>\lessapprox<sup>(a)</sup></code>	less-than or approximate
U+02A86	⋉	⋉	⋉	⋉	⋉	⋉	<code>\gtrapprox<sup>(a)</sup></code>	greater-than or approximate
U+02A87	⋈	⋈	⋈	⋈	⋈	⋈	<code>\lneq<sup>(a)</sup></code>	less-than and single-line not equal to



USV	L	S	E	P	A	N	Macro	Description
U+02A88	↯	↱	↰	↴	↷	↶	<code>\gneq<sup>(a)</sup></code>	greater-than and single-line not equal to
U+02A89	↮	↲	↱	↴	↷	↶	<code>\lnapprox<sup>(a)</sup></code>	less-than and not approximate
U+02A8A	↮	↲	↱	↴	↷	↶	<code>\gnapprox<sup>(a)</sup></code>	greater-than and not approximate
U+02A8B	↯	↱	↰	↴	↷	↶	<code>\lesseqgtr<sup>(a)</sup></code>	less-than above double-line equal above greater-than
U+02A8C	↯	↱	↰	↴	↷	↶	<code>\gtreqless<sup>(a)</sup></code>	greater-than above double-line equal above less-than
U+02A8D		↱			↷		<code>\lsime</code>	less-than above similar or equal
U+02A8E		↱			↷		<code>\gsime</code>	greater-than above similar or equal
U+02A8F		↱			↷		<code>\lsimg</code>	less-than above similar above greater-than
U+02A90		↱			↷		<code>\gsiml</code>	greater-than above similar above less-than
U+02A91		↱			↷		<code>\lgE</code>	less-than above greater-than above double-line equal
U+02A92		↱			↷		<code>\gLE</code>	greater-than above less-than above double-line equal
U+02A93		↱			↷		<code>\lesges</code>	less-than above slanted equal above greater-than above slanted equal
U+02A94		↱			↷		<code>\gesles</code>	greater-than above slanted equal above less-than above slanted equal
U+02A95	↵	↵	↵	↵	↵	↵	<code>\eqslantless<sup>(a)</sup></code>	slanted equal to or less-than
U+02A96	↶	↶	↶	↶	↶	↶	<code>\eqslantgtr<sup>(a)</sup></code>	slanted equal to or greater-than
U+02A97		↵			↵		<code>\elsdot</code>	slanted equal to or less-than with dot inside
U+02A98		↶			↶		<code>\egsdot</code>	slanted equal to or greater-than with dot inside

USV	L	S	E	P	A	N	Macro	Description
U+02A99		≡			≡		<code>\eqqless</code>	double-line equal to or less-than
U+02A9A		≧			≧		<code>\eqqgtr</code>	double-line equal to or greater-than
U+02A9B		≧̸	≧̸		≧̸	≧̸	<code>\eqqslantless</code>	double-line slanted equal to or less-than
U+02A9C		≧̸	≧̸		≧̸	≧̸	<code>\eqqslantgtr</code>	double-line slanted equal to or greater-than
U+02A9D		≈			≈		<code>\simless</code>	similar or less-than
U+02A9E		≈			≈		<code>\simgtr</code>	similar or greater-than
U+02A9F		≉			≉		<code>\simlE</code>	similar above less-than above equals sign
U+02AA0		≉			≉		<code>\simgE</code>	similar above greater-than above equals sign
U+02AA1		≪			≪		<code>\Lt</code>	double nested less-than
U+02AA2		≫			≫		<code>\Gt</code>	double nested greater-than
U+02AA3		≪̲			≪̲		<code>\partialmeetcontraction</code>	double less-than with underbar
U+02AA4		⋈			⋈		<code>\glj</code>	greater-than overlapping less-than
U+02AA5		×			×		<code>\gla</code>	greater-than beside less-than
U+02AA6		◁			◁		<code>\ltcc</code>	less-than closed by curve
U+02AA7		▷			▷		<code>\gtcc</code>	greater-than closed by curve
U+02AA8		◁̸			◁̸		<code>\lescc</code>	less-than closed by curve above slanted equal
U+02AA9		▷̸			▷̸		<code>\gescc</code>	greater-than closed by curve above slanted equal
U+02AAA		≲			≲		<code>\smt</code>	smaller than
U+02AAB		≳			≳		<code>\lat</code>	larger than

USV	L	S	E	P	A	N	Macro	Description
U+02AAC		≤			≤		\smte	smaller than or equal to
U+02AAD		≥			≥		\late	larger than or equal to
U+02AAE		≍			≍		\bumpeq	equals sign with bumpy above
U+02AAF	⋈	≤	⋈	⋈	≤	⋈	\preceq <sup>(p)</sup>	precedes above single-line equals sign
U+02AB0	⋈	≥	⋈	⋈	≥	⋈	\succeq <sup>(p)</sup>	succeeds above single-line equals sign
U+02AB1		≠	≠		≠	≠	\precneq	precedes above single-line not equal to
U+02AB2		≠	≠		≠	≠	\succneq	succeeds above single-line not equal to
U+02AB3		≍	≍		≍	≍	\preceqq	precedes above equals sign
U+02AB4		≍	≍		≍	≍	\succeqq	succeeds above equals sign
U+02AB5		≠	≠		≠	≠	\precneqq <sup>(a)</sup>	precedes above not equal to
U+02AB6		≠	≠		≠	≠	\succneqq <sup>(a)</sup>	succeeds above not equal to
U+02AB7		≈	≈		≈	≈	\precapprox <sup>(a)</sup>	precedes above almost equal to
U+02AB8		≈	≈		≈	≈	\succapprox <sup>(a)</sup>	succeeds above almost equal to
U+02AB9		≉	≉		≉	≉	\precnapprox <sup>(a)</sup>	precedes above not almost equal to
U+02ABA		≉	≉		≉	≉	\succnapprox <sup>(a)</sup>	succeeds above not almost equal to
U+02ABB		≲			≲		\Prec	double precedes
U+02ABC		≳			≳		\Succ	double succeeds
U+02ABD		⊂			⊂		\subsetdot	subset with dot
U+02ABE		⊃			⊃		\supsetdot	superset with dot

USV	L	S	E	P	A	N	Macro	Description
U+02ABF		⊆ <sup>+</sup>			⊆ <sup>+</sup>		<code>\subsetplus</code>	subset with plus sign below
U+02AC0		⊇ <sup>+</sup>			⊇ <sup>+</sup>		<code>\supsetplus</code>	superset with plus sign below
U+02AC1		⊆ <sup>×</sup>			⊆ <sup>×</sup>		<code>\submult</code>	subset with multiplication sign below
U+02AC2		⊇ <sup>×</sup>			⊇ <sup>×</sup>		<code>\supmult</code>	superset with multiplication sign below
U+02AC3		⊆ <sup>⋅</sup>			⊆ <sup>⋅</sup>		<code>\subedot</code>	subset of or equal to with dot above
U+02AC4		⊇ <sup>⋅</sup>			⊇ <sup>⋅</sup>		<code>\supedot</code>	superset of or equal to with dot above
U+02AC5		⊆ <sup>=</sup>	⊆ <sup>=</sup>		⊆ <sup>=</sup>	⊆ <sup>=</sup>	<code>\subseteqq<sup>(a)</sup></code>	subset of above equals sign
U+02AC6		⊇ <sup>=</sup>	⊇ <sup>=</sup>		⊇ <sup>=</sup>	⊇ <sup>=</sup>	<code>\supseteqq<sup>(a)</sup></code>	superset of above equals sign
U+02AC7		⊆ <sup>~</sup>			⊆ <sup>~</sup>		<code>\subsim</code>	subset of above tilde operator
U+02AC8		⊇ <sup>~</sup>			⊇ <sup>~</sup>		<code>\supsim</code>	superset of above tilde operator
U+02AC9		⊆ <sup>≈</sup>			⊆ <sup>≈</sup>		<code>\subsetapprox</code>	subset of above almost equal to
U+02ACA		⊇ <sup>≈</sup>			⊇ <sup>≈</sup>		<code>\supsetapprox</code>	superset of above almost equal to
U+02ACB		⊆ <sup>≠</sup>	⊆ <sup>≠</sup>		⊆ <sup>≠</sup>	⊆ <sup>≠</sup>	<code>\subsetneqq<sup>(a)</sup></code>	subset of above not equal to
U+02ACC		⊇ <sup>≠</sup>	⊇ <sup>≠</sup>		⊇ <sup>≠</sup>	⊇ <sup>≠</sup>	<code>\supsetneqq<sup>(a)</sup></code>	superset of above not equal to
U+02ACD		⌊			⌊		<code>\lsqhook</code>	square left open box operator
U+02ACE		⌋			⌋		<code>\rsqhook</code>	square right open box operator
U+02ACF		⊐			⊐		<code>\csub</code>	closed subset
U+02AD0		⊑			⊑		<code>\csup</code>	closed superset
U+02AD1		⊒			⊒		<code>\csube</code>	closed subset or equal to

USV	L	S	E	P	A	N	Macro	Description
U+02AD2		⊃			⊃		\csupe	closed superset or equal to
U+02AD3		⊆			⊆		\subsup	subset above superset
U+02AD4		⊇			⊇		\supsub	superset above subset
U+02AD5		⊂			⊂		\subsub	subset above subset
U+02AD6		⊃			⊃		\supsup	superset above superset
U+02AD7		⊂⊃			⊂⊃		\suphsub	superset beside subset
U+02AD8		⊂⊃			⊂⊃		\supdsub	superset beside and joined by dash with subset
U+02AD9		⌋			⌋		\forkv	element of opening downwards
U+02ADA		⌋			⌋		\topfork	pitchfork with tee top
U+02ADB		⌋			⌋		\mlcp	transversal intersection
U+02ADC		⌋			⌋		\forks	forking
U+02ADD		⌋			⌋		\forksnot	nonforking
U+02ADE		┘			┘		\shortlefttack	short left tack
U+02ADF		┘			┘		\shortdowntack	short down tack
U+02AE0		┘			┘		\shortuptack	short up tack
U+02AE2		≡			≡		\vDdash	vertical bar triple right turnstile
U+02AE3		≡			≡		\dashV	double vertical bar left turnstile
U+02AE4		≡			≡		\Dashv	vertical bar double left turnstile
U+02AE5		≡			≡		\DashV	double vertical bar double left turnstile
U+02AE6		≡			≡		\varVdash	long dash from left member of double vertical

USV	L	S	E	P	A	N	Macro	Description
U+02AE7		⏞			⏞		\Barv	short down tack with overbar
U+02AE8		⏟			⏟		\vBar	short up tack with underbar
U+02AE9		⏚			⏚		\vBarv	short up tack above short down tack
U+02AEA		⏚			⏚		\barV	double down tack
U+02AEB		⏚			⏚		\Vbar	double up tack
U+02AEC		⏞			⏞		\Not	double stroke not sign
U+02AED		⏞			⏞		\bNot	reversed double stroke not sign
U+02AEE		⏞			⏞		\revnmid	does not divide with reversed negation slash
U+02AEF		⏞			⏞		\cirmid	vertical line with circle above
U+02AF0		⏞			⏞		\midcir	vertical line with circle below
U+02AF2		⏞			⏞		\nhpar	parallel with horizontal stroke
U+02AF3		⏞			⏞		\parsim	parallel with tilde operator
U+02AF7		⏞			⏞		\lllnest	stacked very much less-than
U+02AF8		⏞			⏞		\gggnest	stacked very much greater-than
U+02AF9		⏞	⏞		⏞	⏞	\leqqslant	double-line slanted less-than or equal to
U+02AFA		⏞	⏞		⏞	⏞	\geqqslant	double-line slanted greater-than or equal to
U+02B30		⏞			⏞		\circleonleftarrow	left arrow with small circle
U+02B31	⏞	⏞	⏞	⏞	⏞	⏞	\leftthreearrows	three leftwards arrows
U+02B32		⏞			⏞		\leftarrowonoplus	left arrow with circled plus
U+02B33	⏞	⏞	⏞	⏞	⏞	⏞	\longleftsquigarrow	long leftwards squiggle arrow

usv	L	S	E	P	A	N	Macro	Description
U+02B34		↔			↔		<code>\nvtwoheadleftarrow</code>	leftwards two-headed arrow with vertical stroke
U+02B35		↔			↔		<code>\nVtwoheadleftarrow</code>	leftwards two-headed arrow with double vertical stroke
U+02B36		↔			↔		<code>\twoheadmapsfrom</code>	leftwards two-headed arrow from bar
U+02B37		↔			↔		<code>\twoheadleftdbkarrow</code>	leftwards two-headed triple-dash arrow
U+02B38		↔			↔		<code>\leftdotarrow</code>	leftwards arrow with dotted stem
U+02B39		↔			↔		<code>\nvleftarrowtail</code>	leftwards arrow with tail with vertical stroke
U+02B3A		↔			↔		<code>\nVleftarrowtail</code>	leftwards arrow with tail with double vertical stroke
U+02B3B		↔			↔		<code>\twoheadleftarrowtail</code>	leftwards two-headed arrow with tail
U+02B3C		↔			↔		<code>\nvtwoheadleftarrowtail</code>	leftwards two-headed arrow with tail with vertical stroke
U+02B3D		↔			↔		<code>\nVtwoheadleftarrowtail</code>	leftwards two-headed arrow with tail with double vertical stroke
U+02B3E		↔			↔		<code>\leftarrowx</code>	leftwards arrow through x
U+02B3F		↔	↔		↔	↔	<code>\leftcurvedarrow</code>	wave arrow pointing directly left
U+02B40		↔			↔		<code>\equalleftarrow</code>	equals sign above leftwards arrow
U+02B41		↔			↔		<code>\bsimilarleftarrow</code>	reverse tilde operator above leftwards arrow
U+02B42		↔			↔		<code>\leftarrowbackapprox</code>	leftwards arrow above reverse almost equal to
U+02B43		➤			➤		<code>\rightarrowgtr</code>	rightwards arrow through greater-than
U+02B44		➤			➤		<code>\rightarrowsupset</code>	rightwards arrow through subset

USV	L	S	E	P	A	N	Macro	Description
U+02B45		⇐⇐			⇐⇐		<code>\Lleftarrow</code>	leftwards quadruple arrow
U+02B46		⇒⇒			⇒⇒		<code>\Rrightarrow</code>	rightwards quadruple arrow
U+02B47		⇐̃			⇒̃		<code>\bsimilarrightarrow</code>	reverse tilde operator above rightwards arrow
U+02B48		⇒̃			⇒̃		<code>\rightarrowbackapprox</code>	rightwards arrow above reverse almost equal to
U+02B49		←̃			←̃		<code>\similarleftarrow</code>	tilde operator above leftwards arrow
U+02B4A		←̃≈			←̃≈		<code>\leftarrowapprox</code>	leftwards arrow above almost equal to
U+02B4B		←̃⇐			←̃⇐		<code>\leftarrowbsimilar</code>	leftwards arrow above reverse tilde operator
U+02B4C		⇒̃			⇒̃		<code>\rightarrowbsimilar</code>	rightwards arrow above reverse tilde operator



## 15 Alphabetical symbols, \mathalpha

### 15.1 Normal weight

#### 15.1.1 Upright Greek, uppercase

usv	L	S	E	P	A	N	Macro	Description
u+00391	Α	Α	Α	Α	Α	Α	\mupAlpha	capital alpha, greek
u+00392	Β	Β	Β	Β	Β	Β	\mupBeta	capital beta, greek
u+00393	Γ	Γ	Γ	Γ	Γ	Γ	\mupGamma	capital gamma, greek
u+00394	Δ	Δ	Δ	Δ	Δ	Δ	\mupDelta	capital delta, greek
u+00395	Ε	Ε	Ε	Ε	Ε	Ε	\mupEpsilon	capital epsilon, greek
u+00396	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	\mupZeta	capital zeta, greek
u+00397	Η	Η	Η	Η	Η	Η	\mupEta	capital eta, greek
u+00398	Θ	Θ	Θ	Θ	Θ	Θ	\mupTheta	capital theta, greek
u+00399	Ι	Ι	Ι	Ι	Ι	Ι	\mupIota	capital iota, greek
u+0039A	Κ	Κ	Κ	Κ	Κ	Κ	\mupKappa	capital kappa, greek
u+0039B	Λ	Λ	Λ	Λ	Λ	Λ	\mupLambda	capital lambda, greek
u+0039C	Μ	Μ	Μ	Μ	Μ	Μ	\mupMu	capital mu, greek
u+0039D	Ν	Ν	Ν	Ν	Ν	Ν	\mupNu	capital nu, greek
u+0039E	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	\mupXi	capital xi, greek
u+0039F	Ο	Ο	Ο	Ο	Ο	Ο	\mupOmicron	capital omicron, greek
u+003A0	Π	Π	Π	Π	Π	Π	\mupPi	capital pi, greek
u+003A1	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	\mupRho	capital rho, greek
u+003A3	Σ	Σ	Σ	Σ	Σ	Σ	\mupSigma	capital sigma, greek

usv	L	S	E	P	A	N	Macro	Description
u+003A4	Τ	Τ	Τ	Τ	Τ	Τ	\mupTau	capital tau, greek
u+003A5	Υ	Υ	Υ	Υ	Υ	Υ	\mupUpsilon	capital upsilon, greek
u+003A6	Φ	Φ	Φ	Φ	Φ	Φ	\mupPhi	capital phi, greek
u+003A7	Χ	Χ	Χ	Χ	Χ	Χ	\mupChi	capital chi, greek
u+003A8	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	\mupPsi	capital psi, greek
u+003A9	Ω	Ω	Ω	Ω	Ω	Ω	\mupOmega	capital omega, greek

### 15.1.2 Upright Greek, lowercase

usv	L	S	E	P	A	N	Macro	Description
u+003B1	α	α	α	α	α	α	\mupalpha	small alpha, greek
u+003B2	β	β	β	β	β	β	\mupbeta	small beta, greek
u+003B3	γ	γ	γ	γ	γ	γ	\mupgamma	small gamma, greek
u+003B4	δ	δ	δ	δ	δ	δ	\mupdelta	small delta, greek
u+003B5	ε	ε	ε	ε	ε	ε	\mupvarepsilon	rounded small varepsilon, greek
u+003B6	ζ	ζ	ζ	ζ	ζ	ζ	\mupzeta	small zeta, greek
u+003B7	η	η	η	η	η	η	\mupeta	small eta, greek
u+003B8	θ	θ	θ	θ	θ	θ	\muptheta	straight theta, small theta, greek
u+003B9	ι	ι	ι	ι	ι	ι	\mupiota	small iota, greek
u+003BA	κ	κ	κ	κ	κ	κ	\mupkappa	small kappa, greek
u+003BB	λ	λ	λ	λ	λ	λ	\muplambda	small lambda, greek
u+003BC	μ	μ	μ	μ	μ	μ	\mupmu	small mu, greek

usv	L	S	E	P	A	N	Macro	Description
U+003BD	ν	ν	ν	ν	ν	ν	\mupnu	small nu, greek
U+003BE	ξ	ξ	ξ	ξ	ξ	ξ	\mupxi	small xi, greek
U+003BF	ο	ο	ο	ο	ο	ο	\mupomicron	small omicron, greek
U+003C0	π	π	π	π	π	π	\muppi	small pi, greek
U+003C1	ρ	ρ	ρ	ρ	ρ	ρ	\muprho	small rho, greek
U+003C2	ς	ς	ς	ς	ς		\mupvarsigma	terminal sigma, greek
U+003C3	σ	σ	σ	σ	σ	σ	\mupsigma	small sigma, greek
U+003C4	τ	τ	τ	τ	τ	τ	\muptau	small tau, greek
U+003C5	υ	υ	υ	υ	υ	υ	\mupupsilon	small upsilon, greek
U+003C6	φ	φ	φ	φ	φ	φ	\mupvarphi	curly or open small phi, greek
U+003C7	χ	χ	χ	χ	χ	χ	\mupchi	small chi, greek
U+003C8	ψ	ψ	ψ	ψ	ψ	ψ	\muppsi	small psi, greek
U+003C9	ω	ω	ω	ω	ω	ω	\mupomega	small omega, greek
U+003D1	ϑ	ϑ	ϑ	ϑ	ϑ	ϑ	\mupvarthetaeta	/varthetaeta - curly or open theta
U+003D5	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	\mupphi	/straightphi - small phi, greek
U+003D6	ϖ	ϖ	ϖ	ϖ	ϖ	ϖ	\mupvarpi	rounded small pi (pomega), greek
U+003DC		Ϛ			Ϛ		\upDigamma	capital digamma
U+003DD		ϛ	ϛ		ϛ		\updigamma	old greek small letter digamma
U+003F0	ϣ	ϣ	ϣ	ϣ	ϣ	ϣ	\mupvarkappa	rounded small kappa, greek
U+003F1	ϥ	ϥ	ϥ	ϥ	ϥ		\mupvarrho	rounded small rho, greek

USV	L	S	E	P	A	N	Macro	Description
U+003F4	Θ	Θ	Θ	Θ	Θ	Θ	\mupvarTheta	greek capital theta symbol
U+003F5	ϵ	ϵ	ϵ	ϵ	ϵ	ϵ	\mupepsilon	greek lunate varepsilon symbol

### 15.1.3 Italic, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D434	A	A	A	A	A	A	\mitA	mathematical italic capital a
U+1D435	B	B	B	B	B	B	\mitB	mathematical italic capital b
U+1D436	C	C	C	C	C	C	\mitC	mathematical italic capital c
U+1D437	D	D	D	D	D	D	\mitD	mathematical italic capital d
U+1D438	E	E	E	E	E	E	\mitE	mathematical italic capital e
U+1D439	F	F	F	F	F	F	\mitF	mathematical italic capital f
U+1D43A	G	G	G	G	G	G	\mitG	mathematical italic capital g
U+1D43B	H	H	H	H	H	H	\mitH	mathematical italic capital h
U+1D43C	I	I	I	I	I	I	\mitI	mathematical italic capital i
U+1D43D	J	J	J	J	J	J	\mitJ	mathematical italic capital j
U+1D43E	K	K	K	K	K	K	\mitK	mathematical italic capital k
U+1D43F	L	L	L	L	L	L	\mitL	mathematical italic capital l
U+1D440	M	M	M	M	M	M	\mitM	mathematical italic capital m
U+1D441	N	N	N	N	N	N	\mitN	mathematical italic capital n
U+1D442	O	O	O	O	O	O	\mitO	mathematical italic capital o
U+1D443	P	P	P	P	P	P	\mitP	mathematical italic capital p

USV	L	S	E	P	A	N	Macro	Description
U+1D444	Q	Q	Q	Q	Q	Q	\mitQ	mathematical italic capital q
U+1D445	R	R	R	R	R	R	\mitR	mathematical italic capital r
U+1D446	S	S	S	S	S	S	\mitS	mathematical italic capital s
U+1D447	T	T	T	T	T	T	\mitT	mathematical italic capital t
U+1D448	U	U	U	U	U	U	\mitU	mathematical italic capital u
U+1D449	V	V	V	V	V	V	\mitV	mathematical italic capital v
U+1D44A	W	W	W	W	W	W	\mitW	mathematical italic capital w
U+1D44B	X	X	X	X	X	X	\mitX	mathematical italic capital x
U+1D44C	Y	Y	Y	Y	Y	Y	\mitY	mathematical italic capital y
U+1D44D	Z	Z	Z	Z	Z	Z	\mitZ	mathematical italic capital z

#### 15.1.4 Italic, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D44E	a	a	a	a	a	a	\mita	mathematical italic small a
U+1D44F	b	b	b	b	b	b	\mitb	mathematical italic small b
U+1D450	c	c	c	c	c	c	\mitc	mathematical italic small c
U+1D451	d	d	d	d	d	d	\mitd	mathematical italic small d
U+1D452	e	e	e	e	e	e	\mite	mathematical italic small e
U+1D453	f	f	f	f	f	f	\mitf	mathematical italic small f
U+1D454	g	g	g	g	g	g	\mitg	mathematical italic small g
U+1D456	i	i	i	i	i	i	\miti	mathematical italic small i

usv	L	S	E	P	A	N	Macro	Description
U+1D457	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<code>\mitj</code>	mathematical italic small j
U+1D458	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<code>\mitk</code>	mathematical italic small k
U+1D459	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<code>\mitl</code>	mathematical italic small l
U+1D45A	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<code>\mitm</code>	mathematical italic small m
U+1D45B	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<code>\mitn</code>	mathematical italic small n
U+1D45C	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<code>\mito</code>	mathematical italic small o
U+1D45D	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<code>\mitp</code>	mathematical italic small p
U+1D45E	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<code>\mitq</code>	mathematical italic small q
U+1D45F	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<code>\mitr</code>	mathematical italic small r
U+1D460	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<code>\mits</code>	mathematical italic small s
U+1D461	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<code>\mitt</code>	mathematical italic small t
U+1D462	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<code>\mitu</code>	mathematical italic small u
U+1D463	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<code>\mitv</code>	mathematical italic small v
U+1D464	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<code>\mitw</code>	mathematical italic small w
U+1D465	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<code>\mitx</code>	mathematical italic small x
U+1D466	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<code>\mity</code>	mathematical italic small y
U+1D467	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<code>\mitz</code>	mathematical italic small z

### 15.1.5 Italic Greek, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D6E2	Α	Α	Α	Α	Α	Α	\mitAlpha	mathematical italic capital alpha
U+1D6E3	Β	Β	Β	Β	Β	Β	\mitBeta	mathematical italic capital beta
U+1D6E4	Γ	Γ	Γ	Γ	Γ	Γ	\mitGamma	mathematical italic capital gamma
U+1D6E5	Δ	Δ	Δ	Δ	Δ	Δ	\mitDelta	mathematical italic capital delta
U+1D6E6	Ε	Ε	Ε	Ε	Ε	Ε	\mitEpsilon	mathematical italic capital epsilon
U+1D6E7	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	\mitZeta	mathematical italic capital zeta
U+1D6E8	Η	Η	Η	Η	Η	Η	\mitEta	mathematical italic capital eta
U+1D6E9	Θ	Θ	Θ	Θ	Θ	Θ	\mitTheta	mathematical italic capital theta
U+1D6EA	Ι	Ι	Ι	Ι	Ι	Ι	\mitIota	mathematical italic capital iota
U+1D6EB	Κ	Κ	Κ	Κ	Κ	Κ	\mitKappa	mathematical italic capital kappa
U+1D6EC	Λ	Λ	Λ	Λ	Λ	Λ	\mitLambda	mathematical italic capital lambda
U+1D6ED	Μ	Μ	Μ	Μ	Μ	Μ	\mitMu	mathematical italic capital mu
U+1D6EE	Ν	Ν	Ν	Ν	Ν	Ν	\mitNu	mathematical italic capital nu
U+1D6EF	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	\mitXi	mathematical italic capital xi
U+1D6F0	Ο	Ο	Ο	Ο	Ο	Ο	\mitOmicron	mathematical italic capital omicron
U+1D6F1	Π	Π	Π	Π	Π	Π	\mitPi	mathematical italic capital pi
U+1D6F2	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	\mitRho	mathematical italic capital rho
U+1D6F3	Θ	Θ	Θ	Θ	Θ	Θ	\mitvarTheta	mathematical italic capital theta symbol
U+1D6F4	Σ	Σ	Σ	Σ	Σ	Σ	\mitSigma	mathematical italic capital sigma












USV	L	S	E	P	A	N	Macro	Description
U+1D6F5	Τ	Τ	Τ	Τ	Τ	Τ	\mitTau	mathematical italic capital tau
U+1D6F6	Υ	Υ	Υ	Υ	Υ	Υ	\mitUpsilon	mathematical italic capital upsilon
U+1D6F7	Φ	Φ	Φ	Φ	Φ	Φ	\mitPhi	mathematical italic capital phi
U+1D6F8	Χ	Χ	Χ	Χ	Χ	Χ	\mitChi	mathematical italic capital chi
U+1D6F9	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	\mitPsi	mathematical italic capital psi
U+1D6FA	Ω	Ω	Ω	Ω	Ω	Ω	\mitOmega	mathematical italic capital omega

### 15.1.6 Italic Greek, lowercase

































































































USV	L	S	E	P	A	N	Macro	Description
U+1D6FC	α	α	α	α	α	α	\mitalpha	mathematical italic small alpha
U+1D6FD	β	β	β	β	β	β	\mitbeta	mathematical italic small beta
U+1D6FE	γ	γ	γ	γ	γ	γ	\mitgamma	mathematical italic small gamma
U+1D6FF	δ	δ	δ	δ	δ	δ	\mitdelta	mathematical italic small delta
U+1D700	ε	ε	ε	ε	ε	ε	\mitvarepsilon	mathematical italic small varepsilon
U+1D701	ζ	ζ	ζ	ζ	ζ	ζ	\mitzeta	mathematical italic small zeta
U+1D702	η	η	η	η	η	η	\miteta	mathematical italic small eta
U+1D703	θ	θ	θ	θ	θ	θ	\mittheta	mathematical italic small theta
U+1D704	ι	ι	ι	ι	ι	ι	\mitiota	mathematical italic small iota
U+1D705	κ	κ	κ	κ	κ	κ	\mitkappa	mathematical italic small kappa
U+1D706	λ	λ	λ	λ	λ	λ	\mitlambda	mathematical italic small lambda



usv	L	S	E	P	A	N	Macro	Description
U+1D707	μ	μ	μ	μ	μ	μ	\mitmu	mathematical italic small mu
U+1D708	ν	ν	ν	ν	ν	ν	\mitnu	mathematical italic small nu
U+1D709	ξ	ξ	ξ	ξ	ξ	ξ	\mitxi	mathematical italic small xi
U+1D70A	ο	ο	ο	ο	ο	ο	\mitomicron	mathematical italic small omicron
U+1D70B	π	π	π	π	π	π	\mitpi	mathematical italic small pi
U+1D70C	ρ	ρ	ρ	ρ	ρ	ρ	\mitrho	mathematical italic small rho
U+1D70D	ς	ς	ς	ς	ς		\mitvarsigma	mathematical italic small final sigma
U+1D70E	σ	σ	σ	σ	σ	σ	\mitsigma	mathematical italic small sigma
U+1D70F	τ	τ	τ	τ	τ	τ	\mittau	mathematical italic small tau
U+1D710	υ	υ	υ	υ	υ	υ	\mitupsilon	mathematical italic small up-silon
U+1D711	φ	φ	φ	φ	φ	φ	\mitvarphi	mathematical italic small phi
U+1D712	χ	χ	χ	χ	χ	χ	\mitchi	mathematical italic small chi
U+1D713	ψ	ψ	ψ	ψ	ψ	ψ	\mitpsi	mathematical italic small psi
U+1D714	ω	ω	ω	ω	ω	ω	\mitomega	mathematical italic small omega
U+1D715	∂	∂	∂	∂	∂	∂	\mitpartial	mathematical italic partial differential
U+1D716	ε	ε	ε	ε	ε	ε	\mitepsilon	mathematical italic varepsilon symbol
U+1D717	θ	θ	θ	θ	θ	θ	\mitvartheta	mathematical italic theta symbol
U+1D718	κ	κ	κ	κ	κ	κ	\mitvarkappa	mathematical italic kappa symbol
U+1D719	φ	φ	φ	φ	φ	φ	\mitphi	mathematical italic phi symbol

USV	L	S	E	P	A	N	Macro	Description
U+1D71A							<code>\mitvarrho</code>	mathematical italic rho symbol
U+1D71B							<code>\mitvarpi</code>	mathematical italic pi symbol






















### 15.1.7 Script, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D49C							<code>\mscrA</code>	mathematical script capital a
U+1D49E							<code>\mscrC</code>	mathematical script capital c
U+1D49F							<code>\mscrD</code>	mathematical script capital d
U+1D4A2							<code>\mscrG</code>	mathematical script capital g
U+1D4A5							<code>\mscrJ</code>	mathematical script capital j
U+1D4A6							<code>\mscrK</code>	mathematical script capital k
U+1D4A9							<code>\mscrN</code>	mathematical script capital n
U+1D4AA							<code>\mscrO</code>	mathematical script capital o
U+1D4AB							<code>\mscrP</code>	mathematical script capital p
U+1D4AC							<code>\mscrQ</code>	mathematical script capital q
U+1D4AE							<code>\mscrS</code>	mathematical script capital s
U+1D4AF							<code>\mscrT</code>	mathematical script capital t
U+1D4B0							<code>\mscrU</code>	mathematical script capital u
U+1D4B1							<code>\mscrV</code>	mathematical script capital v
U+1D4B2							<code>\mscrW</code>	mathematical script capital w
U+1D4B3							<code>\mscrX</code>	mathematical script capital x



































































USV	L	S	E	P	A	N	Macro	Description
U+1D4B4	<i>ŷ</i>	<i>ŷ</i>	<i>ŷ</i>	<i>ŷ</i>	<i>ŷ</i>	<i>ŷ</i>	\mscrY	mathematical script capital y
U+1D4B5	<i>Ẓ</i>	<i>Ẓ</i>	<i>Ẓ</i>	<i>Ẓ</i>	<i>Ẓ</i>	<i>Ẓ</i>	\mscrZ	mathematical script capital z

### 15.1.8 Script, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D4B6	<i>ā</i>	<i>ā</i>	<i>ā</i>	<i>ā</i>	<i>ā</i>	<i>ā</i>	\mscra	mathematical script small a
U+1D4B7	<i>ḃ</i>	<i>ḃ</i>	<i>ḃ</i>	<i>ḃ</i>	<i>ḃ</i>	<i>ḃ</i>	\mscrb	mathematical script small b
U+1D4B8	<i>ċ</i>	<i>ċ</i>	<i>ċ</i>	<i>ċ</i>	<i>ċ</i>	<i>ċ</i>	\mscrc	mathematical script small c
U+1D4B9	<i>ḏ</i>	<i>ḏ</i>	<i>ḏ</i>	<i>ḏ</i>	<i>ḏ</i>	<i>ḏ</i>	\mscrd	mathematical script small d
U+1D4BB	<i>ḟ</i>	<i>ḟ</i>	<i>ḟ</i>	<i>ḟ</i>	<i>ḟ</i>	<i>ḟ</i>	\mscrf	mathematical script small f
U+1D4BD	<i>ḥ</i>	<i>ḥ</i>	<i>ḥ</i>	<i>ḥ</i>	<i>ḥ</i>	<i>ḥ</i>	\mscrh	mathematical script small h
U+1D4BE	<i>ī</i>	<i>ī</i>	<i>ī</i>	<i>ī</i>	<i>ī</i>	<i>ī</i>	\mscri	mathematical script small i
U+1D4BF	<i>ĵ</i>	<i>ĵ</i>	<i>ĵ</i>	<i>ĵ</i>	<i>ĵ</i>	<i>ĵ</i>	\mscrj	mathematical script small j
U+1D4C0	<i>ķ</i>	<i>ķ</i>	<i>ķ</i>	<i>ķ</i>	<i>ķ</i>	<i>ķ</i>	\mscrk	mathematical script small k
U+1D4C1	<i>ł</i>	<i>ł</i>	<i>ł</i>	<i>ł</i>	<i>ł</i>	<i>ł</i>	\mscr1	mathematical script small l
U+1D4C2	<i>ṁ</i>	<i>ṁ</i>	<i>ṁ</i>	<i>ṁ</i>	<i>ṁ</i>	<i>ṁ</i>	\mscrm	mathematical script small m
U+1D4C3	<i>ṅ</i>	<i>ṅ</i>	<i>ṅ</i>	<i>ṅ</i>	<i>ṅ</i>	<i>ṅ</i>	\mscrn	mathematical script small n
U+1D4C5	<i>Ṗ</i>	<i>Ṗ</i>	<i>Ṗ</i>	<i>Ṗ</i>	<i>Ṗ</i>	<i>Ṗ</i>	\mscrp	mathematical script small p
U+1D4C6	<i>q̇</i>	<i>q̇</i>	<i>q̇</i>	<i>q̇</i>	<i>q̇</i>	<i>q̇</i>	\mscrq	mathematical script small q
U+1D4C7	<i>ṛ</i>	<i>ṛ</i>	<i>ṛ</i>	<i>ṛ</i>	<i>ṛ</i>	<i>ṛ</i>	\mscrr	mathematical script small r
U+1D4C8	<i>ṣ</i>	<i>ṣ</i>	<i>ṣ</i>	<i>ṣ</i>	<i>ṣ</i>	<i>ṣ</i>	\mscrs	mathematical script small s

USV	L	S	E	P	A	N	Macro	Description
U+1D4C9							<code>\mscrt</code>	mathematical script small t
U+1D4CA							<code>\mscru</code>	mathematical script small u
U+1D4CB							<code>\mscrv</code>	mathematical script small v
U+1D4CC							<code>\mscrw</code>	mathematical script small w
U+1D4CD							<code>\mscrx</code>	mathematical script small x
U+1D4CE							<code>\mscry</code>	mathematical script small y
U+1D4CF							<code>\mscrz</code>	mathematical script small z

### 15.1.9 Fraktur, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D504							<code>\mfrakA</code>	mathematical fraktur capital a
U+1D505							<code>\mfrakB</code>	mathematical fraktur capital b
U+1D507							<code>\mfrakD</code>	mathematical fraktur capital d
U+1D508							<code>\mfrakE</code>	mathematical fraktur capital e
U+1D509							<code>\mfrakF</code>	mathematical fraktur capital f
U+1D50A							<code>\mfrakG</code>	mathematical fraktur capital g
U+1D50D							<code>\mfrakJ</code>	mathematical fraktur capital j
U+1D50E							<code>\mfrakK</code>	mathematical fraktur capital k
U+1D50F							<code>\mfrakL</code>	mathematical fraktur capital l
U+1D510							<code>\mfrakM</code>	mathematical fraktur capital m
U+1D511							<code>\mfrakN</code>	mathematical fraktur capital n

usv	L	S	E	P	A	N	Macro	Description
U+1D512	𝔬	𝔰	𝔼	𝔓	𝔸	𝔑	\mfracO	mathematical fraktur capital o
U+1D513	𝔮	𝔲	𝔳	𝔴	𝔶	𝔷	\mfracP	mathematical fraktur capital p
U+1D514	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracQ	mathematical fraktur capital q
U+1D516	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracS	mathematical fraktur capital s
U+1D517	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracT	mathematical fraktur capital t
U+1D518	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracU	mathematical fraktur capital u
U+1D519	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracV	mathematical fraktur capital v
U+1D51A	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracW	mathematical fraktur capital w
U+1D51B	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracX	mathematical fraktur capital x
U+1D51C	𝔼	𝔼	𝔼	𝔼	𝔼	𝔼	\mfracY	mathematical fraktur capital y

### 15.1.10 Fraktur, Latin, lowercase

usv	L	S	E	P	A	N	Macro	Description
U+1D51E	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfraka	mathematical fraktur small a
U+1D51F	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakb	mathematical fraktur small b
U+1D520	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakc	mathematical fraktur small c
U+1D521	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakd	mathematical fraktur small d
U+1D522	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrake	mathematical fraktur small e
U+1D523	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakf	mathematical fraktur small f
U+1D524	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakg	mathematical fraktur small g
U+1D525	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	\mfrakh	mathematical fraktur small h

usv	L	S	E	P	A	N	Macro	Description
U+1D526	ı	ı	ı	ı	ı	ı	\mfraki	mathematical fraktur small i
U+1D527	ȷ	ȷ	ȷ	ȷ	ȷ	ȷ	\mfrakj	mathematical fraktur small j
U+1D528	ƙ	ƙ	ƙ	ƙ	ƙ	ƙ	\mfrakk	mathematical fraktur small k
U+1D529	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	\mfrakl	mathematical fraktur small l
U+1D52A	𝓂	𝓂	𝓂	𝓂	𝓂	𝓂	\mfrakm	mathematical fraktur small m
U+1D52B	𝓃	𝓃	𝓃	𝓃	𝓃	𝓃	\mfrakn	mathematical fraktur small n
U+1D52C	𝔬	𝔬	𝔬	𝔬	𝔬	𝔬	\mfrako	mathematical fraktur small o
U+1D52D	𝔮	𝔮	𝔮	𝔮	𝔮	𝔮	\mfrakp	mathematical fraktur small p
U+1D52E	𝔲	𝔲	𝔲	𝔲	𝔲	𝔲	\mfrakq	mathematical fraktur small q
U+1D52F	𝔳	𝔳	𝔳	𝔳	𝔳	𝔳	\mfrakr	mathematical fraktur small r
U+1D530	𝔵	𝔵	𝔵	𝔵	𝔵	𝔵	\mfraks	mathematical fraktur small s
U+1D531	𝔲	𝔲	𝔲	𝔲	𝔲	𝔲	\mfrakt	mathematical fraktur small t
U+1D532	𝔲	𝔲	𝔲	𝔲	𝔲	𝔲	\mfraku	mathematical fraktur small u
U+1D533	𝔳	𝔳	𝔳	𝔳	𝔳	𝔳	\mfrakv	mathematical fraktur small v
U+1D534	𝔴	𝔴	𝔴	𝔴	𝔴	𝔴	\mfrakw	mathematical fraktur small w
U+1D535	𝔵	𝔵	𝔵	𝔵	𝔵	𝔵	\mfrakx	mathematical fraktur small x
U+1D536	𝔶	𝔶	𝔶	𝔶	𝔶	𝔶	\mfraky	mathematical fraktur small y
U+1D537	𝔷	𝔷	𝔷	𝔷	𝔷	𝔷	\mfrakz	mathematical fraktur small z

### 15.1.11 Blackboard, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D538	À	Á	Â	Ã	Ä	Å	\BbbA	mathematical double-struck capital a
U+1D539	Ā	Ā	Ā	Ā	Ā	Ā	\BbbB	mathematical double-struck capital b
U+1D53B	Ċ	Ċ	Ċ	Ċ	Ċ	Ċ	\BbbD	mathematical double-struck capital d
U+1D53C	Ė	Ė	Ė	Ė	Ė	Ė	\BbbE	mathematical double-struck capital e
U+1D53D	ƒ	ƒ	ƒ	ƒ	ƒ	ƒ	\BbbF	mathematical double-struck capital f
U+1D53E	Ġ	Ġ	Ġ	Ġ	Ġ	Ġ	\BbbG	mathematical double-struck capital g
U+1D540	ı	ı	ı	ı	ı	ı	\BbbI	mathematical double-struck capital i
U+1D541	Ƶ	Ƶ	Ƶ	Ƶ	Ƶ	Ƶ	\BbbJ	mathematical double-struck capital j
U+1D542	Ʒ	Ʒ	Ʒ	Ʒ	Ʒ	Ʒ	\BbbK	mathematical double-struck capital k
U+1D543	Ł	Ł	Ł	Ł	Ł	Ł	\BbbL	mathematical double-struck capital l
U+1D544	ℳ	ℳ	ℳ	ℳ	ℳ	ℳ	\BbbM	mathematical double-struck capital m
U+1D546	ℴ	ℴ	ℴ	ℴ	ℴ	ℴ	\BbbO	mathematical double-struck capital o
U+1D54A	Œ	Œ	Œ	Œ	Œ	Œ	\BbbS	mathematical double-struck capital s
U+1D54B	Ƨ	Ƨ	Ƨ	Ƨ	Ƨ	Ƨ	\BbbT	mathematical double-struck capital t
U+1D54C	Ʋ	Ʋ	Ʋ	Ʋ	Ʋ	Ʋ	\BbbU	mathematical double-struck capital u
U+1D54D	Ƶ	Ƶ	Ƶ	Ƶ	Ƶ	Ƶ	\BbbV	mathematical double-struck capital v
U+1D54E	Ʒ	Ʒ	Ʒ	Ʒ	Ʒ	Ʒ	\BbbW	mathematical double-struck capital w

usv	L	S	E	P	A	N	Macro	Description
U+1D54F							<code>\BbbX</code>	mathematical double-struck capital x
U+1D550							<code>\BbbY</code>	mathematical double-struck capital y

### 15.1.12 Blackboard, Latin, lowercase

usv	L	S	E	P	A	N	Macro	Description
U+1D552							<code>\Bbba</code>	mathematical double-struck small a
U+1D553							<code>\Bbbb</code>	mathematical double-struck small b
U+1D554							<code>\Bbbc</code>	mathematical double-struck small c
U+1D555							<code>\Bbbd</code>	mathematical double-struck small d
U+1D556							<code>\Bbbe</code>	mathematical double-struck small e
U+1D557							<code>\Bbbf</code>	mathematical double-struck small f
U+1D558							<code>\Bbbg</code>	mathematical double-struck small g
U+1D559							<code>\Bbbh</code>	mathematical double-struck small h
U+1D55A							<code>\Bbbi</code>	mathematical double-struck small i
U+1D55B							<code>\Bbbj</code>	mathematical double-struck small j
U+1D55C							<code>\Bbbk<sup>(a)</sup></code>	mathematical double-struck small k
U+1D55D							<code>\Bbb1</code>	mathematical double-struck small l
U+1D55E							<code>\Bbbm</code>	mathematical double-struck small m



usv	L	S	E	P	A	N	Macro	Description
U+1D55F							<code>\Bbbn</code>	mathematical double-struck small n
U+1D560							<code>\Bbbo</code>	mathematical double-struck small o
U+1D561							<code>\Bbbp</code>	mathematical double-struck small p
U+1D562							<code>\Bbbq</code>	mathematical double-struck small q
U+1D563							<code>\Bbbr</code>	mathematical double-struck small r
U+1D564							<code>\Bbbs</code>	mathematical double-struck small s
U+1D565							<code>\Bbbt</code>	mathematical double-struck small t
U+1D566							<code>\Bbbu</code>	mathematical double-struck small u
U+1D567							<code>\Bbbv</code>	mathematical double-struck small v
U+1D568							<code>\Bbbw</code>	mathematical double-struck small w
U+1D569							<code>\Bbbx</code>	mathematical double-struck small x
U+1D56A							<code>\Bbby</code>	mathematical double-struck small y
U+1D56B							<code>\Bbbz</code>	mathematical double-struck small z

### 15.1.13 Sans serif, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D5A0							<code>\msansA</code>	mathematical sans-serif capital a
U+1D5A1							<code>\msansB</code>	mathematical sans-serif capital b

usv	L	S	E	P	A	N	Macro	Description
U+1D5A2	C	C	C	C	C	C	\msansC	mathematical sans-serif capital c
U+1D5A3	D	D	D	D	D	D	\msansD	mathematical sans-serif capital d
U+1D5A4	E	E	E	E	E	E	\msansE	mathematical sans-serif capital e
U+1D5A5	F	F	F	F	F	F	\msansF	mathematical sans-serif capital f
U+1D5A6	G	G	G	G	G	G	\msansG	mathematical sans-serif capital g
U+1D5A7	H	H	H	H	H	H	\msansH	mathematical sans-serif capital h
U+1D5A8	I	I	I	I	I	I	\msansI	mathematical sans-serif capital i
U+1D5A9	J	J	J	J	J	J	\msansJ	mathematical sans-serif capital j
U+1D5AA	K	K	K	K	K	K	\msansK	mathematical sans-serif capital k
U+1D5AB	L	L	L	L	L	L	\msansL	mathematical sans-serif capital l
U+1D5AC	M	M	M	M	M	M	\msansM	mathematical sans-serif capital m
U+1D5AD	N	N	N	N	N	N	\msansN	mathematical sans-serif capital n
U+1D5AE	O	O	O	O	O	O	\msansO	mathematical sans-serif capital o
U+1D5AF	P	P	P	P	P	P	\msansP	mathematical sans-serif capital p
U+1D5B0	Q	Q	Q	Q	Q	Q	\msansQ	mathematical sans-serif capital q
U+1D5B1	R	R	R	R	R	R	\msansR	mathematical sans-serif capital r
U+1D5B2	S	S	S	S	S	S	\msansS	mathematical sans-serif capital s
U+1D5B3	T	T	T	T	T	T	\msansT	mathematical sans-serif capital t

USV	L	S	E	P	A	N	Macro	Description
U+1D5B4	U	U	U	U	U	U	<code>\msansU</code>	mathematical sans-serif capital u
U+1D5B5	V	V	V	V	V	V	<code>\msansV</code>	mathematical sans-serif capital v
U+1D5B6	W	W	W	W	W	W	<code>\msansW</code>	mathematical sans-serif capital w
U+1D5B7	X	X	X	X	X	X	<code>\msansX</code>	mathematical sans-serif capital x
U+1D5B8	Y	Y	Y	Y	Y	Y	<code>\msansY</code>	mathematical sans-serif capital y
U+1D5B9	Z	Z	Z	Z	Z	Z	<code>\msansZ</code>	mathematical sans-serif capital z

#### 15.1.14 Sans serif, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D5BA	a	a	a	a	a	a	<code>\msansa</code>	mathematical sans-serif small a
U+1D5BB	b	b	b	b	b	b	<code>\msansb</code>	mathematical sans-serif small b
U+1D5BC	c	c	c	c	c	c	<code>\msansc</code>	mathematical sans-serif small c
U+1D5BD	d	d	d	d	d	d	<code>\msansd</code>	mathematical sans-serif small d
U+1D5BE	e	e	e	e	e	e	<code>\msanse</code>	mathematical sans-serif small e
U+1D5BF	f	f	f	f	f	f	<code>\msansf</code>	mathematical sans-serif small f
U+1D5C0	g	g	g	g	g	g	<code>\msansg</code>	mathematical sans-serif small g
U+1D5C1	h	h	h	h	h	h	<code>\msansh</code>	mathematical sans-serif small h
U+1D5C2	i	i	i	i	i	i	<code>\msansi</code>	mathematical sans-serif small i
U+1D5C3	j	j	j	j	j	j	<code>\msansj</code>	mathematical sans-serif small j
U+1D5C4	k	k	k	k	k	k	<code>\msansk</code>	mathematical sans-serif small k

usv	L	S	E	P	A	N	Macro	Description
U+1D5C5	l	l	l	l	l	l	\msansl	mathematical sans-serif small l
U+1D5C6	m	m	m	m	m	m	\msansm	mathematical sans-serif small m
U+1D5C7	n	n	n	n	n	n	\msansn	mathematical sans-serif small n
U+1D5C8	o	o	o	o	o	o	\msanso	mathematical sans-serif small o
U+1D5C9	p	p	p	p	p	p	\msansp	mathematical sans-serif small p
U+1D5CA	q	q	q	q	q	q	\msansq	mathematical sans-serif small q
U+1D5CB	r	r	r	r	r	r	\msansr	mathematical sans-serif small r
U+1D5CC	s	s	s	s	s	s	\msanss	mathematical sans-serif small s
U+1D5CD	t	t	t	t	t	t	\msanst	mathematical sans-serif small t
U+1D5CE	u	u	u	u	u	u	\msansu	mathematical sans-serif small u
U+1D5CF	v	v	v	v	v	v	\msansv	mathematical sans-serif small v
U+1D5D0	w	w	w	w	w	w	\msansw	mathematical sans-serif small w
U+1D5D1	x	x	x	x	x	x	\msansx	mathematical sans-serif small x
U+1D5D2	y	y	y	y	y	y	\msansy	mathematical sans-serif small y
U+1D5D3	z	z	z	z	z	z	\msansz	mathematical sans-serif small z

### 15.1.15 Italic sans serif, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D608	A	A	A	A	A	A	\mitsansA	mathematical sans-serif italic capital a
U+1D609	B	B	B	B	B	B	\mitsansB	mathematical sans-serif italic capital b

USV	L	S	E	P	A	N	Macro	Description
U+1D60A	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<code>\mitsansC</code>	mathematical sans-serif italic capital c
U+1D60B	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<code>\mitsansD</code>	mathematical sans-serif italic capital d
U+1D60C	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<code>\mitsansE</code>	mathematical sans-serif italic capital e
U+1D60D	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<code>\mitsansF</code>	mathematical sans-serif italic capital f
U+1D60E	<i>G</i>	<i>G</i>	<i>G</i>	<i>G</i>	<i>G</i>	<i>G</i>	<code>\mitsansG</code>	mathematical sans-serif italic capital g
U+1D60F	<i>H</i>	<i>H</i>	<i>H</i>	<i>H</i>	<i>H</i>	<i>H</i>	<code>\mitsansH</code>	mathematical sans-serif italic capital h
U+1D610	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<code>\mitsansI</code>	mathematical sans-serif italic capital i
U+1D611	<i>J</i>	<i>J</i>	<i>J</i>	<i>J</i>	<i>J</i>	<i>J</i>	<code>\mitsansJ</code>	mathematical sans-serif italic capital j
U+1D612	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<code>\mitsansK</code>	mathematical sans-serif italic capital k
U+1D613	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<code>\mitsansL</code>	mathematical sans-serif italic capital l
U+1D614	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<code>\mitsansM</code>	mathematical sans-serif italic capital m
U+1D615	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<code>\mitsansN</code>	mathematical sans-serif italic capital n
U+1D616	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<code>\mitsansO</code>	mathematical sans-serif italic capital o
U+1D617	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<code>\mitsansP</code>	mathematical sans-serif italic capital p
U+1D618	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<code>\mitsansQ</code>	mathematical sans-serif italic capital q
U+1D619	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<code>\mitsansR</code>	mathematical sans-serif italic capital r
U+1D61A	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<code>\mitsansS</code>	mathematical sans-serif italic capital s

USV	L	S	E	P	A	N	Macro	Description
U+1D61B	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<code>\mitsansT</code>	mathematical sans-serif italic capital t
U+1D61C	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<code>\mitsansU</code>	mathematical sans-serif italic capital u
U+1D61D	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<code>\mitsansV</code>	mathematical sans-serif italic capital v
U+1D61E	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<code>\mitsansW</code>	mathematical sans-serif italic capital w
U+1D61F	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<code>\mitsansX</code>	mathematical sans-serif italic capital x
U+1D620	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<code>\mitsansY</code>	mathematical sans-serif italic capital y
U+1D621	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<code>\mitsansZ</code>	mathematical sans-serif italic capital z

### 15.1.16 Italic sans serif, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D622	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<code>\mitsansa</code>	mathematical sans-serif italic small a
U+1D623	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<code>\mitsansb</code>	mathematical sans-serif italic small b
U+1D624	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<code>\mitsansc</code>	mathematical sans-serif italic small c
U+1D625	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<code>\mitsansd</code>	mathematical sans-serif italic small d
U+1D626	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<code>\mitsanse</code>	mathematical sans-serif italic small e
U+1D627	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<code>\mitsansf</code>	mathematical sans-serif italic small f
U+1D628	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<code>\mitsansg</code>	mathematical sans-serif italic small g
U+1D629	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<code>\mitsansh</code>	mathematical sans-serif italic small h

USV	L	S	E	P	A	N	Macro	Description
U+1D62A	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<code>\mitsansi</code>	mathematical sans-serif italic small i
U+1D62B	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<code>\mitsansj</code>	mathematical sans-serif italic small j
U+1D62C	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<code>\mitsansk</code>	mathematical sans-serif italic small k
U+1D62D	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<code>\mitsansl</code>	mathematical sans-serif italic small l
U+1D62E	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<code>\mitsansm</code>	mathematical sans-serif italic small m
U+1D62F	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<code>\mitsansn</code>	mathematical sans-serif italic small n
U+1D630	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<code>\mitsanso</code>	mathematical sans-serif italic small o
U+1D631	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<code>\mitsansp</code>	mathematical sans-serif italic small p
U+1D632	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<code>\mitsansq</code>	mathematical sans-serif italic small q
U+1D633	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<code>\mitsansr</code>	mathematical sans-serif italic small r
U+1D634	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<code>\mitsanss</code>	mathematical sans-serif italic small s
U+1D635	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<code>\mitsanst</code>	mathematical sans-serif italic small t
U+1D636	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i>	<code>\mitsansu</code>	mathematical sans-serif italic small u
U+1D637	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<i>v</i>	<code>\mitsansv</code>	mathematical sans-serif italic small v
U+1D638	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<i>w</i>	<code>\mitsansw</code>	mathematical sans-serif italic small w
U+1D639	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<code>\mitsansx</code>	mathematical sans-serif italic small x
U+1D63A	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	<code>\mitsansy</code>	mathematical sans-serif italic small y

usv	L	S	E	P	A	N	Macro	Description
U+1D63B	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<i>z</i>	<code>\mitsansz</code>	mathematical sans-serif italic small z

### 15.1.17 Typewriter, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D670	A	A	A	A	A	A	<code>\mttA</code>	mathematical monospace capital a
U+1D671	B	B	B	B	B	B	<code>\mttB</code>	mathematical monospace capital b
U+1D672	C	C	C	C	C	C	<code>\mttC</code>	mathematical monospace capital c
U+1D673	D	D	D	D	D	D	<code>\mttD</code>	mathematical monospace capital d
U+1D674	E	E	E	E	E	E	<code>\mttE</code>	mathematical monospace capital e
U+1D675	F	F	F	F	F	F	<code>\mttF</code>	mathematical monospace capital f
U+1D676	G	G	G	G	G	G	<code>\mttG</code>	mathematical monospace capital g
U+1D677	H	H	H	H	H	H	<code>\mttH</code>	mathematical monospace capital h
U+1D678	I	I	I	I	I	I	<code>\mttI</code>	mathematical monospace capital i
U+1D679	J	J	J	J	J	J	<code>\mttJ</code>	mathematical monospace capital j
U+1D67A	K	K	K	K	K	K	<code>\mttK</code>	mathematical monospace capital k
U+1D67B	L	L	L	L	L	L	<code>\mttL</code>	mathematical monospace capital l
U+1D67C	M	M	M	M	M	M	<code>\mttM</code>	mathematical monospace capital m



usv	L	S	E	P	A	N	Macro	Description
U+1D67D	N	N	N	N	N	N	<code>\mttN</code>	mathematical monospace capital n
U+1D67E	O	O	O	O	O	O	<code>\mttO</code>	mathematical monospace capital o
U+1D67F	P	P	P	P	P	P	<code>\mttP</code>	mathematical monospace capital p
U+1D680	Q	Q	Q	Q	Q	Q	<code>\mttQ</code>	mathematical monospace capital q
U+1D681	R	R	R	R	R	R	<code>\mttR</code>	mathematical monospace capital r
U+1D682	S	S	S	S	S	S	<code>\mttS</code>	mathematical monospace capital s
U+1D683	T	T	T	T	T	T	<code>\mttT</code>	mathematical monospace capital t
U+1D684	U	U	U	U	U	U	<code>\mttU</code>	mathematical monospace capital u
U+1D685	V	V	V	V	V	V	<code>\mttV</code>	mathematical monospace capital v
U+1D686	W	W	W	W	W	W	<code>\mttW</code>	mathematical monospace capital w
U+1D687	X	X	X	X	X	X	<code>\mttX</code>	mathematical monospace capital x
U+1D688	Y	Y	Y	Y	Y	Y	<code>\mttY</code>	mathematical monospace capital y
U+1D689	Z	Z	Z	Z	Z	Z	<code>\mttZ</code>	mathematical monospace capital z

### 15.1.18 Typewriter, Latin, lowercase

usv	L	S	E	P	A	N	Macro	Description
U+1D68A	a	a	a	a	a	a	<code>\mtta</code>	mathematical monospace small a

usv	L	S	E	P	A	N	Macro	Description
U+1D68B	b	b	b	b	b	b	\mttb	mathematical monospace small b
U+1D68C	c	c	c	c	c	c	\mttc	mathematical monospace small c
U+1D68D	d	d	d	d	d	d	\mttd	mathematical monospace small d
U+1D68E	e	e	e	e	e	e	\mtte	mathematical monospace small e
U+1D68F	f	f	f	f	f	f	\mttf	mathematical monospace small f
U+1D690	g	g	g	g	g	g	\mttg	mathematical monospace small g
U+1D691	h	h	h	h	h	h	\mtth	mathematical monospace small h
U+1D692	i	i	i	i	i	i	\mtti	mathematical monospace small i
U+1D693	j	j	j	j	j	j	\mttj	mathematical monospace small j
U+1D694	k	k	k	k	k	k	\mttk	mathematical monospace small k
U+1D695	l	l	l	l	l	l	\mttl	mathematical monospace small l
U+1D696	m	m	m	m	m	m	\mttm	mathematical monospace small m
U+1D697	n	n	n	n	n	n	\mttn	mathematical monospace small n
U+1D698	o	o	o	o	o	o	\mtto	mathematical monospace small o
U+1D699	p	p	p	p	p	p	\mttp	mathematical monospace small p
U+1D69A	q	q	q	q	q	q	\mttq	mathematical monospace small q
U+1D69B	r	r	r	r	r	r	\mttr	mathematical monospace small r

USV	L	S	E	P	A	N	Macro	Description
U+1D69C	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<code>\mtts</code>	mathematical monospace small s
U+1D69D	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<code>\mttt</code>	mathematical monospace small t
U+1D69E	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<code>\mttu</code>	mathematical monospace small u
U+1D69F	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<code>\mttv</code>	mathematical monospace small v
U+1D6A0	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<code>\mttw</code>	mathematical monospace small w
U+1D6A1	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<code>\mttx</code>	mathematical monospace small x
U+1D6A2	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<code>\mtty</code>	mathematical monospace small y
U+1D6A3	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<code>\mttz</code>	mathematical monospace small z

## 15.2 Bold

### 15.2.1 Bold, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D400	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<code>\mbfA</code>	mathematical bold capital a
U+1D401	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<code>\mbfB</code>	mathematical bold capital b
U+1D402	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<code>\mbfC</code>	mathematical bold capital c
U+1D403	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<code>\mbfD</code>	mathematical bold capital d
U+1D404	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<code>\mbfE</code>	mathematical bold capital e
U+1D405	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<b>F</b>	<code>\mbfF</code>	mathematical bold capital f
U+1D406	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	<code>\mbfG</code>	mathematical bold capital g
U+1D407	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<code>\mbfH</code>	mathematical bold capital h

USV	L	S	E	P	A	N	Macro	Description
U+1D408	I	I	I	I	I	I	\mbfI	mathematical bold capital i
U+1D409	J	J	J	J	J	J	\mbfJ	mathematical bold capital j
U+1D40A	K	K	K	K	K	K	\mbfK	mathematical bold capital k
U+1D40B	L	L	L	L	L	L	\mbfL	mathematical bold capital l
U+1D40C	M	M	M	M	M	M	\mbfM	mathematical bold capital m
U+1D40D	N	N	N	N	N	N	\mbfN	mathematical bold capital n
U+1D40E	O	O	O	O	O	O	\mbfO	mathematical bold capital o
U+1D40F	P	P	P	P	P	P	\mbfP	mathematical bold capital p
U+1D410	Q	Q	Q	Q	Q	Q	\mbfQ	mathematical bold capital q
U+1D411	R	R	R	R	R	R	\mbfR	mathematical bold capital r
U+1D412	S	S	S	S	S	S	\mbfS	mathematical bold capital s
U+1D413	T	T	T	T	T	T	\mbfT	mathematical bold capital t
U+1D414	U	U	U	U	U	U	\mbfU	mathematical bold capital u
U+1D415	V	V	V	V	V	V	\mbfV	mathematical bold capital v
U+1D416	W	W	W	W	W	W	\mbfW	mathematical bold capital w
U+1D417	X	X	X	X	X	X	\mbfX	mathematical bold capital x
U+1D418	Y	Y	Y	Y	Y	Y	\mbfY	mathematical bold capital y
U+1D419	Z	Z	Z	Z	Z	Z	\mbfZ	mathematical bold capital z

### 15.2.2 Bold, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D41A	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<code>\mbfa</code>	mathematical bold small a
U+1D41B	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<code>\mbfb</code>	mathematical bold small b
U+1D41C	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<code>\mbfc</code>	mathematical bold small c
U+1D41D	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<code>\mbfd</code>	mathematical bold small d
U+1D41E	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<code>\mbfe</code>	mathematical bold small e
U+1D41F	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<code>\mbff</code>	mathematical bold small f
U+1D420	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<code>\mbfg</code>	mathematical bold small g
U+1D421	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<code>\mbfh</code>	mathematical bold small h
U+1D422	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<code>\mbfi</code>	mathematical bold small i
U+1D423	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<code>\mbfj</code>	mathematical bold small j
U+1D424	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<code>\mbfk</code>	mathematical bold small k
U+1D425	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<code>\mbfl</code>	mathematical bold small l
U+1D426	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<code>\mbfm</code>	mathematical bold small m
U+1D427	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<code>\mbfn</code>	mathematical bold small n
U+1D428	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<code>\mbfo</code>	mathematical bold small o
U+1D429	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<code>\mbfp</code>	mathematical bold small p
U+1D42A	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<code>\mbfq</code>	mathematical bold small q
U+1D42B	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<code>\mbfr</code>	mathematical bold small r
U+1D42C	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<code>\mbfs</code>	mathematical bold small s
U+1D42D	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<code>\mbft</code>	mathematical bold small t
U+1D42E	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<code>\mbfu</code>	mathematical bold small u

USV	L	S	E	P	A	N	Macro	Description
U+1D42F	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<code>\mbfv</code>	mathematical bold small v
U+1D430	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<code>\mbfw</code>	mathematical bold small w
U+1D431	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<code>\mbfx</code>	mathematical bold small x
U+1D432	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<code>\mbfy</code>	mathematical bold small y
U+1D433	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<code>\mbfz</code>	mathematical bold small z

### 15.2.3 Bold Greek, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D6A8	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<code>\mbfAlpha</code>	mathematical bold capital alpha
U+1D6A9	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<code>\mbfBeta</code>	mathematical bold capital beta
U+1D6AA	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<code>\mbfGamma</code>	mathematical bold capital gamma
U+1D6AB	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<code>\mbfDelta</code>	mathematical bold capital delta
U+1D6AC	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<code>\mbfEpsilon</code>	mathematical bold capital epsilon
U+1D6AD	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<code>\mbfZeta</code>	mathematical bold capital zeta
U+1D6AE	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<code>\mbfEta</code>	mathematical bold capital eta
U+1D6AF	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<code>\mbfTheta</code>	mathematical bold capital theta
U+1D6B0	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<code>\mbfIota</code>	mathematical bold capital iota
U+1D6B1	<b>Κ</b>	<b>Κ</b>	<b>Κ</b>	<b>Κ</b>	<b>Κ</b>	<b>Κ</b>	<code>\mbfKappa</code>	mathematical bold capital kappa
U+1D6B2	<b>Λ</b>	<b>Λ</b>	<b>Λ</b>	<b>Λ</b>	<b>Λ</b>	<b>Λ</b>	<code>\mbfLambda</code>	mathematical bold capital lambda
U+1D6B3	<b>Μ</b>	<b>Μ</b>	<b>Μ</b>	<b>Μ</b>	<b>Μ</b>	<b>Μ</b>	<code>\mbfMu</code>	mathematical bold capital mu

USV	L	S	E	P	A	N	Macro	Description
U+1D6B4	Ν	Ν	Ν	Ν	Ν	Ν	\mbfNu	mathematical bold capital nu
U+1D6B5	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	\mbfXi	mathematical bold capital xi
U+1D6B6	Ο	Ο	Ο	Ο	Ο	Ο	\mbfOmicron	mathematical bold capital omicron
U+1D6B7	Π	Π	Π	Π	Π	Π	\mbfPi	mathematical bold capital pi
U+1D6B8	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	\mbfRho	mathematical bold capital rho
U+1D6B9	Θ	Θ	Θ	Θ	Θ	Θ	\mbfvarTheta	mathematical bold capital theta symbol
U+1D6BA	Σ	Σ	Σ	Σ	Σ	Σ	\mbfSigma	mathematical bold capital sigma
U+1D6BB	Τ	Τ	Τ	Τ	Τ	Τ	\mbfTau	mathematical bold capital tau
U+1D6BC	Υ	Υ	Υ	Υ	Υ	Υ	\mbfUpsilon	mathematical bold capital upsilon
U+1D6BD	Φ	Φ	Φ	Φ	Φ	Φ	\mbfPhi	mathematical bold capital phi
U+1D6BE	Χ	Χ	Χ	Χ	Χ	Χ	\mbfChi	mathematical bold capital chi
U+1D6BF	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	\mbfPsi	mathematical bold capital psi
U+1D6C0	Ω	Ω	Ω	Ω	Ω	Ω	\mbfOmega	mathematical bold capital omega

#### 15.2.4 Bold Greek, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D6C2	α	α	α	α	α	α	\mbfalpha	mathematical bold small alpha
U+1D6C3	β	β	β	β	β	β	\mbfbeta	mathematical bold small beta
U+1D6C4	γ	γ	γ	γ	γ	γ	\mbfgamma	mathematical bold small gamma
U+1D6C5	δ	δ	δ	δ	δ	δ	\mbfdelta	mathematical bold small delta

USV	L	S	E	P	A	N	Macro	Description
U+1D6C6	ε	ε	ε	ε	ε	ε	\mbfvarepsilon	mathematical bold small varepsilon
U+1D6C7	ζ	ζ	ζ	ζ	ζ	ζ	\mbfzeta	mathematical bold small zeta
U+1D6C8	η	η	η	η	η	η	\mbfeta	mathematical bold small eta
U+1D6C9	θ	θ	θ	θ	θ	θ	\mbftheta	mathematical bold small theta
U+1D6CA	ι	ι	ι	ι	ι	ι	\mbfiota	mathematical bold small iota
U+1D6CB	κ	κ	κ	κ	κ	κ	\mbfkappa	mathematical bold small kappa
U+1D6CC	λ	λ	λ	λ	λ	λ	\mbflambda	mathematical bold small lambda
U+1D6CD	μ	μ	μ	μ	μ	μ	\mbfmu	mathematical bold small mu
U+1D6CE	ν	ν	ν	ν	ν	ν	\mbfnu	mathematical bold small nu
U+1D6CF	ξ	ξ	ξ	ξ	ξ	ξ	\mbfxi	mathematical bold small xi
U+1D6D0	ο	ο	ο	ο	ο	ο	\mbfomicron	mathematical bold small omicron
U+1D6D1	π	π	π	π	π	π	\mbfpi	mathematical bold small pi
U+1D6D2	ρ	ρ	ρ	ρ	ρ	ρ	\mbfrho	mathematical bold small rho
U+1D6D3	ς	ς	ς	ς	ς		\mbfvarsigma	mathematical bold small final sigma
U+1D6D4	σ	σ	σ	σ	σ	σ	\mbfsigma	mathematical bold small sigma
U+1D6D5	τ	τ	τ	τ	τ	τ	\mbftau	mathematical bold small tau
U+1D6D6	υ	υ	υ	υ	υ	υ	\mbfupsilon	mathematical bold small up-silon
U+1D6D7	φ	φ	φ	φ	φ	φ	\mbfvarphi	mathematical bold small phi
U+1D6D8	χ	χ	χ	χ	χ	χ	\mbfchi	mathematical bold small chi
U+1D6D9	ψ	ψ	ψ	ψ	ψ	ψ	\mbfpsi	mathematical bold small psi



USV	L	S	E	P	A	N	Macro	Description
U+1D6DA	Ω	Ω	Ω	Ω	Ω	Ω	\mbfomega	mathematical bold small omega
U+1D6DB	∂	∂	∂	∂	∂	∂	\mbfpartial	mathematical bold partial differential
U+1D6DC	ε	ε	ε	ε	ε	ε	\mbfepsilon	mathematical bold varepsilon symbol
U+1D6DD	ϑ	ϑ	ϑ	ϑ	ϑ	ϑ	\mbfvartheta	mathematical bold theta symbol
U+1D6DE	κ	κ	κ	κ	κ	κ	\mbfvarkappa	mathematical bold kappa symbol
U+1D6DF	φ	φ	φ	φ	φ	φ	\mbfphi	mathematical bold phi symbol
U+1D6E0	ρ	ρ	ρ	ρ	ρ		\mbfvarrho	mathematical bold rho symbol
U+1D6E1	ω	ω	ω	ω	ω	ω	\mbfvarpi	mathematical bold pi symbol

### 15.2.5 Bold italic, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D468	A	A	A	A	A	A	\mbfitA	mathematical bold italic capital a
U+1D469	B	B	B	B	B	B	\mbfitB	mathematical bold italic capital b
U+1D46A	C	C	C	C	C	C	\mbfitC	mathematical bold italic capital c
U+1D46B	D	D	D	D	D	D	\mbfitD	mathematical bold italic capital d
U+1D46C	E	E	E	E	E	E	\mbfitE	mathematical bold italic capital e
U+1D46D	F	F	F	F	F	F	\mbfitF	mathematical bold italic capital f
U+1D46E	G	G	G	G	G	G	\mbfitG	mathematical bold italic capital g

USV	L	S	E	P	A	N	Macro	Description
U+1D46F	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<code>\mbfitH</code>	mathematical bold italic capital h
U+1D470	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>	<code>\mbfitI</code>	mathematical bold italic capital i
U+1D471	<b>J</b>	<b>J</b>	<b>J</b>	<b>J</b>	<b>J</b>	<b>J</b>	<code>\mbfitJ</code>	mathematical bold italic capital j
U+1D472	<b>K</b>	<b>K</b>	<b>K</b>	<b>K</b>	<b>K</b>	<b>K</b>	<code>\mbfitK</code>	mathematical bold italic capital k
U+1D473	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<code>\mbfitL</code>	mathematical bold italic capital l
U+1D474	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<code>\mbfitM</code>	mathematical bold italic capital m
U+1D475	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<code>\mbfitN</code>	mathematical bold italic capital n
U+1D476	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<code>\mbfitO</code>	mathematical bold italic capital o
U+1D477	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<code>\mbfitP</code>	mathematical bold italic capital p
U+1D478	<b>Q</b>	<b>Q</b>	<b>Q</b>	<b>Q</b>	<b>Q</b>	<b>Q</b>	<code>\mbfitQ</code>	mathematical bold italic capital q
U+1D479	<b>R</b>	<b>R</b>	<b>R</b>	<b>R</b>	<b>R</b>	<b>R</b>	<code>\mbfitR</code>	mathematical bold italic capital r
U+1D47A	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	<code>\mbfitS</code>	mathematical bold italic capital s
U+1D47B	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<code>\mbfitT</code>	mathematical bold italic capital t
U+1D47C	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<code>\mbfitU</code>	mathematical bold italic capital u
U+1D47D	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<code>\mbfitV</code>	mathematical bold italic capital v
U+1D47E	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<code>\mbfitW</code>	mathematical bold italic capital w
U+1D47F	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<code>\mbfitX</code>	mathematical bold italic capital x

USV	L	S	E	P	A	N	Macro	Description
U+1D480	Y	Y	Y	Y	Y	Y	\mbfitY	mathematical bold italic capital y
U+1D481	Z	Z	Z	Z	Z	Z	\mbfitZ	mathematical bold italic capital z

### 15.2.6 Bold italic, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D482	a	a	a	a	a	a	\mbfita	mathematical bold italic small a
U+1D483	b	b	b	b	b	b	\mbfitb	mathematical bold italic small b
U+1D484	c	c	c	c	c	c	\mbfitc	mathematical bold italic small c
U+1D485	d	d	d	d	d	d	\mbfitd	mathematical bold italic small d
U+1D486	e	e	e	e	e	e	\mbfite	mathematical bold italic small e
U+1D487	f	f	f	f	f	f	\mbfitf	mathematical bold italic small f
U+1D488	g	g	g	g	g	g	\mbfitg	mathematical bold italic small g
U+1D489	h	h	h	h	h	h	\mbfith	mathematical bold italic small h
U+1D48A	i	i	i	i	i	i	\mbfiti	mathematical bold italic small i
U+1D48B	j	j	j	j	j	j	\mbfitj	mathematical bold italic small j
U+1D48C	k	k	k	k	k	k	\mbfitk	mathematical bold italic small k
U+1D48D	l	l	l	l	l	l	\mbfitl	mathematical bold italic small l
U+1D48E	m	m	m	m	m	m	\mbfitm	mathematical bold italic small m
U+1D48F	n	n	n	n	n	n	\mbfitn	mathematical bold italic small n
U+1D490	o	o	o	o	o	o	\mbfito	mathematical bold italic small o

usv	L	S	E	P	A	N	Macro	Description
U+1D491	<b><i>p</i></b>	<b><i>p</i></b>	<b><i>p</i></b>	<b><i>p</i></b>	<b><i>p</i></b>	<b><i>p</i></b>	<code>\mbfitp</code>	mathematical bold italic small p
U+1D492	<b><i>q</i></b>	<b><i>q</i></b>	<b><i>q</i></b>	<b><i>q</i></b>	<b><i>q</i></b>	<b><i>q</i></b>	<code>\mbfitq</code>	mathematical bold italic small q
U+1D493	<b><i>r</i></b>	<b><i>r</i></b>	<b><i>r</i></b>	<b><i>r</i></b>	<b><i>r</i></b>	<b><i>r</i></b>	<code>\mbfitr</code>	mathematical bold italic small r
U+1D494	<b><i>s</i></b>	<b><i>s</i></b>	<b><i>s</i></b>	<b><i>s</i></b>	<b><i>s</i></b>	<b><i>s</i></b>	<code>\mbfits</code>	mathematical bold italic small s
U+1D495	<b><i>t</i></b>	<b><i>t</i></b>	<b><i>t</i></b>	<b><i>t</i></b>	<b><i>t</i></b>	<b><i>t</i></b>	<code>\mbfitt</code>	mathematical bold italic small t
U+1D496	<b><i>u</i></b>	<b><i>u</i></b>	<b><i>u</i></b>	<b><i>u</i></b>	<b><i>u</i></b>	<b><i>u</i></b>	<code>\mbfitu</code>	mathematical bold italic small u
U+1D497	<b><i>v</i></b>	<b><i>v</i></b>	<b><i>v</i></b>	<b><i>v</i></b>	<b><i>v</i></b>	<b><i>v</i></b>	<code>\mbfitv</code>	mathematical bold italic small v
U+1D498	<b><i>w</i></b>	<b><i>w</i></b>	<b><i>w</i></b>	<b><i>w</i></b>	<b><i>w</i></b>	<b><i>w</i></b>	<code>\mbfitw</code>	mathematical bold italic small w
U+1D499	<b><i>x</i></b>	<b><i>x</i></b>	<b><i>x</i></b>	<b><i>x</i></b>	<b><i>x</i></b>	<b><i>x</i></b>	<code>\mbfitx</code>	mathematical bold italic small x
U+1D49A	<b><i>y</i></b>	<b><i>y</i></b>	<b><i>y</i></b>	<b><i>y</i></b>	<b><i>y</i></b>	<b><i>y</i></b>	<code>\mbfity</code>	mathematical bold italic small y
U+1D49B	<b><i>z</i></b>	<b><i>z</i></b>	<b><i>z</i></b>	<b><i>z</i></b>	<b><i>z</i></b>	<b><i>z</i></b>	<code>\mbfitz</code>	mathematical bold italic small z

### 15.2.7 Bold italic Greek, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D71C	<b><i>Α</i></b>	<b><i>Α</i></b>	<b><i>Α</i></b>	<b><i>Α</i></b>	<b><i>Α</i></b>	<b><i>Α</i></b>	<code>\mbfitAlpha</code>	mathematical bold italic capital alpha
U+1D71D	<b><i>Β</i></b>	<b><i>Β</i></b>	<b><i>Β</i></b>	<b><i>Β</i></b>	<b><i>Β</i></b>	<b><i>Β</i></b>	<code>\mbfitBeta</code>	mathematical bold italic capital beta
U+1D71E	<b><i>Γ</i></b>	<b><i>Γ</i></b>	<b><i>Γ</i></b>	<b><i>Γ</i></b>	<b><i>Γ</i></b>	<b><i>Γ</i></b>	<code>\mbfitGamma</code>	mathematical bold italic capital gamma
U+1D71F	<b><i>Δ</i></b>	<b><i>Δ</i></b>	<b><i>Δ</i></b>	<b><i>Δ</i></b>	<b><i>Δ</i></b>	<b><i>Δ</i></b>	<code>\mbfitDelta</code>	mathematical bold italic capital delta
U+1D720	<b><i>Ε</i></b>	<b><i>Ε</i></b>	<b><i>Ε</i></b>	<b><i>Ε</i></b>	<b><i>Ε</i></b>	<b><i>Ε</i></b>	<code>\mbfitEpsilon</code>	mathematical bold italic capital epsilon
























USV	L	S	E	P	A	N	Macro	Description
U+1D721	Ζ	Ζ	Ζ	Ζ	Ζ	Ζ	\mbfitZeta	mathematical bold italic capital zeta
U+1D722	Η	Η	Η	Η	Η	Η	\mbfitEta	mathematical bold italic capital eta
U+1D723	Θ	Θ	Θ	Θ	Θ	Θ	\mbfitTheta	mathematical bold italic capital theta
U+1D724	Ι	Ι	Ι	Ι	Ι	Ι	\mbfitIota	mathematical bold italic capital iota
U+1D725	Κ	Κ	Κ	Κ	Κ	Κ	\mbfitKappa	mathematical bold italic capital kappa
U+1D726	Λ	Λ	Λ	Λ	Λ	Λ	\mbfitLambda	mathematical bold italic capital lambda
U+1D727	Μ	Μ	Μ	Μ	Μ	Μ	\mbfitMu	mathematical bold italic capital mu
U+1D728	Ν	Ν	Ν	Ν	Ν	Ν	\mbfitNu	mathematical bold italic capital nu
U+1D729	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	\mbfitXi	mathematical bold italic capital xi
U+1D72A	Ο	Ο	Ο	Ο	Ο	Ο	\mbfitOmicron	mathematical bold italic capital omicron
U+1D72B	Π	Π	Π	Π	Π	Π	\mbfitPi	mathematical bold italic capital pi
U+1D72C	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	\mbfitRho	mathematical bold italic capital rho
U+1D72D	Θ	Θ	Θ	Θ	Θ	Θ	\mbfitvarTheta	mathematical bold italic capital theta symbol
U+1D72E	Σ	Σ	Σ	Σ	Σ	Σ	\mbfitSigma	mathematical bold italic capital sigma
U+1D72F	Τ	Τ	Τ	Τ	Τ	Τ	\mbfitTau	mathematical bold italic capital tau
U+1D730	Υ	Υ	Υ	Υ	Υ	Υ	\mbfitUpsilon	mathematical bold italic capital upsilon

usv	L	S	E	P	A	N	Macro	Description
U+1D731	Φ	Φ	Φ	Φ	Φ	Φ	\mbfitPhi	mathematical bold italic capital phi
U+1D732	Χ	Χ	Χ	Χ	Χ	Χ	\mbfitChi	mathematical bold italic capital chi
U+1D733	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	\mbfitPsi	mathematical bold italic capital psi
U+1D734	Ω	Ω	Ω	Ω	Ω	Ω	\mbfitOmega	mathematical bold italic capital omega





























































### 15.2.8 Bold italic Greek, lowercase

usv	L	S	E	P	A	N	Macro	Description
U+1D736	α	α	α	α	α	α	\mbfitalpha	mathematical bold italic small alpha
U+1D737	β	β	β	β	β	β	\mbfitbeta	mathematical bold italic small beta
U+1D738	γ	γ	γ	γ	γ	γ	\mbfitgamma	mathematical bold italic small gamma
U+1D739	δ	δ	δ	δ	δ	δ	\mbfitdelta	mathematical bold italic small delta
U+1D73A	ε	ε	ε	ε	ε	ε	\mbfitvarepsilon	mathematical bold italic small varepsilon
U+1D73B	ζ	ζ	ζ	ζ	ζ	ζ	\mbfitzeta	mathematical bold italic small zeta
U+1D73C	η	η	η	η	η	η	\mbfiteta	mathematical bold italic small eta
U+1D73D	θ	θ	θ	θ	θ	θ	\mbfittheta	mathematical bold italic small theta
U+1D73E	ι	ι	ι	ι	ι	ι	\mbfitiota	mathematical bold italic small iota
U+1D73F	κ	κ	κ	κ	κ	κ	\mbfitkappa	mathematical bold italic small kappa
U+1D740	λ	λ	λ	λ	λ	λ	\mbfitlambda	mathematical bold italic small lambda

USV	L	S	E	P	A	N	Macro	Description
U+1D741	μ	μ	μ	μ	μ	μ	<code>\mbfitmu</code>	mathematical bold italic small mu
U+1D742	ν	ν	ν	ν	ν	ν	<code>\mbfitnu</code>	mathematical bold italic small nu
U+1D743	ξ	ξ	ξ	ξ	ξ	ξ	<code>\mbfitxi</code>	mathematical bold italic small xi
U+1D744	ο	ο	ο	ο	ο	ο	<code>\mbfitomicron</code>	mathematical bold italic small omicron
U+1D745	π	π	π	π	π	π	<code>\mbfitpi</code>	mathematical bold italic small pi
U+1D746	ρ	ρ	ρ	ρ	ρ	ρ	<code>\mbfitrho</code>	mathematical bold italic small rho
U+1D747	ς	ς	ς	ς	ς		<code>\mbfitvarsigma</code>	mathematical bold italic small final sigma
U+1D748	σ	σ	σ	σ	σ	σ	<code>\mbfitsigma</code>	mathematical bold italic small sigma
U+1D749	τ	τ	τ	τ	τ	τ	<code>\mbfittau</code>	mathematical bold italic small tau
U+1D74A	υ	υ	υ	υ	υ	υ	<code>\mbfitupsilon</code>	mathematical bold italic small upsilon
U+1D74B	φ	φ	φ	φ	φ	φ	<code>\mbfitvarphi</code>	mathematical bold italic small phi
U+1D74C	χ	χ	χ	χ	χ	χ	<code>\mbfitchi</code>	mathematical bold italic small chi
U+1D74D	ψ	ψ	ψ	ψ	ψ	ψ	<code>\mbfitpsi</code>	mathematical bold italic small psi
U+1D74E	ω	ω	ω	ω	ω	ω	<code>\mbfitomega</code>	mathematical bold italic small omega
U+1D74F	∂	∂	∂	∂	∂	∂	<code>\mbfitpartial</code>	mathematical bold italic partial differential
U+1D750	ε	ε	ε	ε	ε	ε	<code>\mbfitepsilon</code>	mathematical bold italic varepsilon symbol
U+1D751	θ	θ	θ	θ	θ	θ	<code>\mbfitvartheta</code>	mathematical bold italic theta symbol

USV	L	S	E	P	A	N	Macro	Description
U+1D752							<code>\mbfitvarkappa</code>	mathematical bold italic kappa symbol
U+1D753							<code>\mbfitphi</code>	mathematical bold italic phi symbol
U+1D754							<code>\mbfitvarrho</code>	mathematical bold italic rho symbol
U+1D755							<code>\mbfitvarpi</code>	mathematical bold italic pi symbol

### 15.2.9 Bold script, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D4D0							<code>\mbfscrA</code>	mathematical bold script capital a
U+1D4D1							<code>\mbfscrB</code>	mathematical bold script capital b
U+1D4D2							<code>\mbfscrC</code>	mathematical bold script capital c
U+1D4D3							<code>\mbfscrD</code>	mathematical bold script capital d
U+1D4D4							<code>\mbfscrE</code>	mathematical bold script capital e
U+1D4D5							<code>\mbfscrF</code>	mathematical bold script capital f
U+1D4D6							<code>\mbfscrG</code>	mathematical bold script capital g
U+1D4D7							<code>\mbfscrH</code>	mathematical bold script capital h
U+1D4D8							<code>\mbfscrI</code>	mathematical bold script capital i
U+1D4D9							<code>\mbfscrJ</code>	mathematical bold script capital j



USV	L	S	E	P	A	N	Macro	Description
U+1D4DA	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<i>K</i>	<code>\mbfscrK</code>	mathematical bold script capital k
U+1D4DB	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>	<code>\mbfscrL</code>	mathematical bold script capital l
U+1D4DC	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<code>\mbfscrM</code>	mathematical bold script capital m
U+1D4DD	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	<code>\mbfscrN</code>	mathematical bold script capital n
U+1D4DE	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<code>\mbfscrO</code>	mathematical bold script capital o
U+1D4DF	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<code>\mbfscrP</code>	mathematical bold script capital p
U+1D4E0	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<i>Q</i>	<code>\mbfscrQ</code>	mathematical bold script capital q
U+1D4E1	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<code>\mbfscrR</code>	mathematical bold script capital r
U+1D4E2	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<code>\mbfscrS</code>	mathematical bold script capital s
U+1D4E3	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<i>T</i>	<code>\mbfscrT</code>	mathematical bold script capital t
U+1D4E4	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<i>U</i>	<code>\mbfscrU</code>	mathematical bold script capital u
U+1D4E5	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<i>V</i>	<code>\mbfscrV</code>	mathematical bold script capital v
U+1D4E6	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<code>\mbfscrW</code>	mathematical bold script capital w
U+1D4E7	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<code>\mbfscrX</code>	mathematical bold script capital x
U+1D4E8	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<code>\mbfscrY</code>	mathematical bold script capital y
U+1D4E9	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<i>Z</i>	<code>\mbfscrZ</code>	mathematical bold script capital z

### 15.2.10 Bold script, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D4EA		<i>a</i>		<i>a</i>	<i>a</i>		\mbfscra	mathematical bold script small a
U+1D4EB		<i>b</i>		<i>b</i>	<i>b</i>		\mbfscrb	mathematical bold script small b
U+1D4EC		<i>c</i>		<i>c</i>	<i>c</i>		\mbfscrc	mathematical bold script small c
U+1D4ED		<i>d</i>		<i>d</i>	<i>d</i>		\mbfscrd	mathematical bold script small d
U+1D4EE		<i>e</i>		<i>e</i>	<i>e</i>		\mbfscre	mathematical bold script small e
U+1D4EF		<i>f</i>		<i>f</i>	<i>f</i>		\mbfscrf	mathematical bold script small f
U+1D4F0		<i>g</i>		<i>g</i>	<i>g</i>		\mbfscrg	mathematical bold script small g
U+1D4F1		<i>h</i>		<i>h</i>	<i>h</i>		\mbfscrh	mathematical bold script small h
U+1D4F2		<i>i</i>		<i>i</i>	<i>i</i>		\mbfscri	mathematical bold script small i
U+1D4F3		<i>j</i>		<i>j</i>	<i>j</i>		\mbfscrj	mathematical bold script small j
U+1D4F4		<i>k</i>		<i>k</i>	<i>k</i>		\mbfscrk	mathematical bold script small k
U+1D4F5		<i>l</i>		<i>l</i>	<i>l</i>		\mbfscr l	mathematical bold script small l
U+1D4F6		<i>m</i>		<i>m</i>	<i>m</i>		\mbfscrm	mathematical bold script small m
U+1D4F7		<i>n</i>		<i>n</i>	<i>n</i>		\mbfscrn	mathematical bold script small n
U+1D4F8		<i>o</i>		<i>o</i>	<i>o</i>		\mbfscro	mathematical bold script small o
U+1D4F9		<i>p</i>		<i>p</i>	<i>p</i>		\mbfscrp	mathematical bold script small p
U+1D4FA		<i>q</i>		<i>q</i>	<i>q</i>		\mbfscrq	mathematical bold script small q

USV	L	S	E	P	A	N	Macro	Description
U+1D4FB		<i>r</i>		<i>r</i>	<i>r</i>		<code>\mbfscrr</code>	mathematical bold script small r
U+1D4FC		<i>s</i>		<i>s</i>	<i>s</i>		<code>\mbfscrs</code>	mathematical bold script small s
U+1D4FD		<i>t</i>		<i>t</i>	<i>t</i>		<code>\mbfsctr</code>	mathematical bold script small t
U+1D4FE		<i>u</i>		<i>u</i>	<i>u</i>		<code>\mbfscru</code>	mathematical bold script small u
U+1D4FF		<i>v</i>		<i>v</i>	<i>v</i>		<code>\mbfscr v</code>	mathematical bold script small v
U+1D500		<i>w</i>		<i>w</i>	<i>w</i>		<code>\mbfscrw</code>	mathematical bold script small w
U+1D501		<i>x</i>		<i>x</i>	<i>x</i>		<code>\mbfscrx</code>	mathematical bold script small x
U+1D502		<i>y</i>		<i>y</i>	<i>y</i>		<code>\mbfscry</code>	mathematical bold script small y
U+1D503		<i>z</i>		<i>z</i>	<i>z</i>		<code>\mbfscrz</code>	mathematical bold script small z

### 15.2.11 Bold fraktur, Latin, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D56C	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<code>\mbffrakA</code>	mathematical bold fraktur capital a
U+1D56D	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<code>\mbffrakB</code>	mathematical bold fraktur capital b
U+1D56E	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<code>\mbffrakC</code>	mathematical bold fraktur capital c
U+1D56F	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<code>\mbffrakD</code>	mathematical bold fraktur capital d
U+1D570	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<code>\mbffrakE</code>	mathematical bold fraktur capital e
U+1D571	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<code>\mbffrakF</code>	mathematical bold fraktur capital f

usv	L	S	E	P	A	N	Macro	Description
U+1D572							<code>\mbffrakG</code>	mathematical bold fraktur capital g
U+1D573							<code>\mbffrakH</code>	mathematical bold fraktur capital h
U+1D574							<code>\mbffrakI</code>	mathematical bold fraktur capital i
U+1D575							<code>\mbffrakJ</code>	mathematical bold fraktur capital j
U+1D576							<code>\mbffrakK</code>	mathematical bold fraktur capital k
U+1D577							<code>\mbffrakL</code>	mathematical bold fraktur capital l
U+1D578							<code>\mbffrakM</code>	mathematical bold fraktur capital m
U+1D579							<code>\mbffrakN</code>	mathematical bold fraktur capital n
U+1D57A							<code>\mbffrakO</code>	mathematical bold fraktur capital o
U+1D57B							<code>\mbffrakP</code>	mathematical bold fraktur capital p
U+1D57C							<code>\mbffrakQ</code>	mathematical bold fraktur capital q
U+1D57D							<code>\mbffrakR</code>	mathematical bold fraktur capital r
U+1D57E							<code>\mbffrakS</code>	mathematical bold fraktur capital s
U+1D57F							<code>\mbffrakT</code>	mathematical bold fraktur capital t
U+1D580							<code>\mbffrakU</code>	mathematical bold fraktur capital u
U+1D581							<code>\mbffrakV</code>	mathematical bold fraktur capital v
U+1D582							<code>\mbffrakW</code>	mathematical bold fraktur capital w

USV	L	S	E	P	A	N	Macro	Description
U+1D583	𝔷	𝔷	𝔷	𝔷	𝔷	𝔷	<code>\mbffrakX</code>	mathematical bold fraktur capital x
U+1D584	𝔸	𝔸	𝔸	𝔸	𝔸	𝔸	<code>\mbffrakY</code>	mathematical bold fraktur capital y
U+1D585	𝔹	𝔹	𝔹	𝔹	𝔹	𝔹	<code>\mbffrakZ</code>	mathematical bold fraktur capital z

### 15.2.12 Bold fraktur, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D586	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	<code>\mbffraka</code>	mathematical bold fraktur small a
U+1D587	𝔟	𝔟	𝔟	𝔟	𝔟	𝔟	<code>\mbffrakb</code>	mathematical bold fraktur small b
U+1D588	𝔠	𝔠	𝔠	𝔠	𝔠	𝔠	<code>\mbffrakc</code>	mathematical bold fraktur small c
U+1D589	𝔡	𝔡	𝔡	𝔡	𝔡	𝔡	<code>\mbffrakd</code>	mathematical bold fraktur small d
U+1D58A	𝔢	𝔢	𝔢	𝔢	𝔢	𝔢	<code>\mbffrake</code>	mathematical bold fraktur small e
U+1D58B	𝔣	𝔣	𝔣	𝔣	𝔣	𝔣	<code>\mbffrakf</code>	mathematical bold fraktur small f
U+1D58C	𝔤	𝔤	𝔤	𝔤	𝔤	𝔤	<code>\mbffrakg</code>	mathematical bold fraktur small g
U+1D58D	𝔥	𝔥	𝔥	𝔥	𝔥	𝔥	<code>\mbffrakh</code>	mathematical bold fraktur small h
U+1D58E	𝔞	𝔞	𝔞	𝔞	𝔞	𝔞	<code>\mbffraki</code>	mathematical bold fraktur small i
U+1D58F	𝔣	𝔣	𝔣	𝔣	𝔣	𝔣	<code>\mbffrakj</code>	mathematical bold fraktur small j
U+1D590	𝔱	𝔱	𝔱	𝔱	𝔱	𝔱	<code>\mbffrakk</code>	mathematical bold fraktur small k
U+1D591	𝔩	𝔩	𝔩	𝔩	𝔩	𝔩	<code>\mbffrakl</code>	mathematical bold fraktur small l

usv	L	S	E	P	A	N	Macro	Description
U+1D592	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<code>\mbffrakm</code>	mathematical bold fraktur small m
U+1D593	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<code>\mbffrakn</code>	mathematical bold fraktur small n
U+1D594	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<code>\mbffrako</code>	mathematical bold fraktur small o
U+1D595	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<code>\mbffrakp</code>	mathematical bold fraktur small p
U+1D596	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<code>\mbffrakq</code>	mathematical bold fraktur small q
U+1D597	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<code>\mbffrakr</code>	mathematical bold fraktur small r
U+1D598	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<code>\mbffraks</code>	mathematical bold fraktur small s
U+1D599	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<code>\mbffrakt</code>	mathematical bold fraktur small t
U+1D59A	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<code>\mbffraku</code>	mathematical bold fraktur small u
U+1D59B	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<code>\mbffrakv</code>	mathematical bold fraktur small v
U+1D59C	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<code>\mbffrakw</code>	mathematical bold fraktur small w
U+1D59D	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<code>\mbffrakx</code>	mathematical bold fraktur small x
U+1D59E	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<code>\mbffraky</code>	mathematical bold fraktur small y
U+1D59F	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<code>\mbffrakz</code>	mathematical bold fraktur small z

### 15.2.13 Bold sans serif, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D5D4	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<code>\mbfsansA</code>	mathematical sans-serif bold capital a
U+1D5D5	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<code>\mbfsansB</code>	mathematical sans-serif bold capital b

usv	L	S	E	P	A	N	Macro	Description
U+1D5D6	C	C	C	C	C	C	\mbfsansC	mathematical sans-serif bold capital c
U+1D5D7	D	D	D	D	D	D	\mbfsansD	mathematical sans-serif bold capital d
U+1D5D8	E	E	E	E	E	E	\mbfsansE	mathematical sans-serif bold capital e
U+1D5D9	F	F	F	F	F	F	\mbfsansF	mathematical sans-serif bold capital f
U+1D5DA	G	G	G	G	G	G	\mbfsansG	mathematical sans-serif bold capital g
U+1D5DB	H	H	H	H	H	H	\mbfsansH	mathematical sans-serif bold capital h
U+1D5DC	I	I	I	I	I	I	\mbfsansI	mathematical sans-serif bold capital i
U+1D5DD	J	J	J	J	J	J	\mbfsansJ	mathematical sans-serif bold capital j
U+1D5DE	K	K	K	K	K	K	\mbfsansK	mathematical sans-serif bold capital k
U+1D5DF	L	L	L	L	L	L	\mbfsansL	mathematical sans-serif bold capital l
U+1D5E0	M	M	M	M	M	M	\mbfsansM	mathematical sans-serif bold capital m
U+1D5E1	N	N	N	N	N	N	\mbfsansN	mathematical sans-serif bold capital n
U+1D5E2	O	O	O	O	O	O	\mbfsansO	mathematical sans-serif bold capital o
U+1D5E3	P	P	P	P	P	P	\mbfsansP	mathematical sans-serif bold capital p
U+1D5E4	Q	Q	Q	Q	Q	Q	\mbfsansQ	mathematical sans-serif bold capital q
U+1D5E5	R	R	R	R	R	R	\mbfsansR	mathematical sans-serif bold capital r
U+1D5E6	S	S	S	S	S	S	\mbfsansS	mathematical sans-serif bold capital s

USV	L	S	E	P	A	N	Macro	Description
U+1D5E7	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<code>\mbfsansT</code>	mathematical sans-serif bold capital t
U+1D5E8	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<code>\mbfsansU</code>	mathematical sans-serif bold capital u
U+1D5E9	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<code>\mbfsansV</code>	mathematical sans-serif bold capital v
U+1D5EA	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<code>\mbfsansW</code>	mathematical sans-serif bold capital w
U+1D5EB	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<code>\mbfsansX</code>	mathematical sans-serif bold capital x
U+1D5EC	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<code>\mbfsansY</code>	mathematical sans-serif bold capital y
U+1D5ED	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<b>Z</b>	<code>\mbfsansZ</code>	mathematical sans-serif bold capital z

#### 15.2.14 Bold sans serif, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D5EE	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<b>a</b>	<code>\mbfsansa</code>	mathematical sans-serif bold small a
U+1D5EF	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<b>b</b>	<code>\mbfsansb</code>	mathematical sans-serif bold small b
U+1D5F0	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<b>c</b>	<code>\mbfsansc</code>	mathematical sans-serif bold small c
U+1D5F1	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<b>d</b>	<code>\mbfsansd</code>	mathematical sans-serif bold small d
U+1D5F2	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<b>e</b>	<code>\mbfsanse</code>	mathematical sans-serif bold small e
U+1D5F3	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<b>f</b>	<code>\mbfsansf</code>	mathematical sans-serif bold small f
U+1D5F4	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<b>g</b>	<code>\mbfsansg</code>	mathematical sans-serif bold small g
U+1D5F5	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<b>h</b>	<code>\mbfsansh</code>	mathematical sans-serif bold small h



usv	L	S	E	P	A	N	Macro	Description
U+1D5F6	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<b>i</b>	<code>\mbfsansi</code>	mathematical sans-serif bold small i
U+1D5F7	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<b>j</b>	<code>\mbfsansj</code>	mathematical sans-serif bold small j
U+1D5F8	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<b>k</b>	<code>\mbfsansk</code>	mathematical sans-serif bold small k
U+1D5F9	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<b>l</b>	<code>\mbfsansl</code>	mathematical sans-serif bold small l
U+1D5FA	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>	<code>\mbfsansm</code>	mathematical sans-serif bold small m
U+1D5FB	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<code>\mbfsansn</code>	mathematical sans-serif bold small n
U+1D5FC	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<b>o</b>	<code>\mbfsanso</code>	mathematical sans-serif bold small o
U+1D5FD	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<b>p</b>	<code>\mbfsansp</code>	mathematical sans-serif bold small p
U+1D5FE	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<b>q</b>	<code>\mbfsansq</code>	mathematical sans-serif bold small q
U+1D5FF	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<b>r</b>	<code>\mbfsansr</code>	mathematical sans-serif bold small r
U+1D600	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<b>s</b>	<code>\mbfsanss</code>	mathematical sans-serif bold small s
U+1D601	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<b>t</b>	<code>\mbfsanst</code>	mathematical sans-serif bold small t
U+1D602	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<code>\mbfsansu</code>	mathematical sans-serif bold small u
U+1D603	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<code>\mbfsansv</code>	mathematical sans-serif bold small v
U+1D604	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<code>\mbfsansw</code>	mathematical sans-serif bold small w
U+1D605	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<code>\mbfsansx</code>	mathematical sans-serif bold small x
U+1D606	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<code>\mbfsansy</code>	mathematical sans-serif bold small y

usv	L	S	E	P	A	N	Macro	Description
U+1D607	<i><b>z</b></i>	<i><b>z</b></i>	<i><b>z</b></i>	<i><b>z</b></i>	<i><b>z</b></i>	<i><b>z</b></i>	<code>\mbfsansz</code>	mathematical sans-serif bold small z

### 15.2.15 Bold italic sans serif, Latin, uppercase

usv	L	S	E	P	A	N	Macro	Description
U+1D63C	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<code>\mbfitsansA</code>	mathematical sans-serif bold italic capital a
U+1D63D	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<code>\mbfitsansB</code>	mathematical sans-serif bold italic capital b
U+1D63E	<i><b>C</b></i>	<i><b>C</b></i>	<i><b>C</b></i>	<i><b>C</b></i>	<i><b>C</b></i>	<i><b>C</b></i>	<code>\mbfitsansC</code>	mathematical sans-serif bold italic capital c
U+1D63F	<i><b>D</b></i>	<i><b>D</b></i>	<i><b>D</b></i>	<i><b>D</b></i>	<i><b>D</b></i>	<i><b>D</b></i>	<code>\mbfitsansD</code>	mathematical sans-serif bold italic capital d
U+1D640	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<code>\mbfitsansE</code>	mathematical sans-serif bold italic capital e
U+1D641	<i><b>F</b></i>	<i><b>F</b></i>	<i><b>F</b></i>	<i><b>F</b></i>	<i><b>F</b></i>	<i><b>F</b></i>	<code>\mbfitsansF</code>	mathematical sans-serif bold italic capital f
U+1D642	<i><b>G</b></i>	<i><b>G</b></i>	<i><b>G</b></i>	<i><b>G</b></i>	<i><b>G</b></i>	<i><b>G</b></i>	<code>\mbfitsansG</code>	mathematical sans-serif bold italic capital g
U+1D643	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<code>\mbfitsansH</code>	mathematical sans-serif bold italic capital h
U+1D644	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<code>\mbfitsansI</code>	mathematical sans-serif bold italic capital i
U+1D645	<i><b>J</b></i>	<i><b>J</b></i>	<i><b>J</b></i>	<i><b>J</b></i>	<i><b>J</b></i>	<i><b>J</b></i>	<code>\mbfitsansJ</code>	mathematical sans-serif bold italic capital j
U+1D646	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<code>\mbfitsansK</code>	mathematical sans-serif bold italic capital k
U+1D647	<i><b>L</b></i>	<i><b>L</b></i>	<i><b>L</b></i>	<i><b>L</b></i>	<i><b>L</b></i>	<i><b>L</b></i>	<code>\mbfitsansL</code>	mathematical sans-serif bold italic capital l
U+1D648	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<code>\mbfitsansM</code>	mathematical sans-serif bold italic capital m
U+1D649	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<code>\mbfitsansN</code>	mathematical sans-serif bold italic capital n

USV	L	S	E	P	A	N	Macro	Description
U+1D64A	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<code>\mbfitsansO</code>	mathematical sans-serif bold italic capital o
U+1D64B	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<code>\mbfitsansP</code>	mathematical sans-serif bold italic capital p
U+1D64C	<i><b>Q</b></i>	<i><b>Q</b></i>	<i><b>Q</b></i>	<i><b>Q</b></i>	<i><b>Q</b></i>	<i><b>Q</b></i>	<code>\mbfitsansQ</code>	mathematical sans-serif bold italic capital q
U+1D64D	<i><b>R</b></i>	<i><b>R</b></i>	<i><b>R</b></i>	<i><b>R</b></i>	<i><b>R</b></i>	<i><b>R</b></i>	<code>\mbfitsansR</code>	mathematical sans-serif bold italic capital r
U+1D64E	<i><b>S</b></i>	<i><b>S</b></i>	<i><b>S</b></i>	<i><b>S</b></i>	<i><b>S</b></i>	<i><b>S</b></i>	<code>\mbfitsansS</code>	mathematical sans-serif bold italic capital s
U+1D64F	<i><b>T</b></i>	<i><b>T</b></i>	<i><b>T</b></i>	<i><b>T</b></i>	<i><b>T</b></i>	<i><b>T</b></i>	<code>\mbfitsansT</code>	mathematical sans-serif bold italic capital t
U+1D650	<i><b>U</b></i>	<i><b>U</b></i>	<i><b>U</b></i>	<i><b>U</b></i>	<i><b>U</b></i>	<i><b>U</b></i>	<code>\mbfitsansU</code>	mathematical sans-serif bold italic capital u
U+1D651	<i><b>V</b></i>	<i><b>V</b></i>	<i><b>V</b></i>	<i><b>V</b></i>	<i><b>V</b></i>	<i><b>V</b></i>	<code>\mbfitsansV</code>	mathematical sans-serif bold italic capital v
U+1D652	<i><b>W</b></i>	<i><b>W</b></i>	<i><b>W</b></i>	<i><b>W</b></i>	<i><b>W</b></i>	<i><b>W</b></i>	<code>\mbfitsansW</code>	mathematical sans-serif bold italic capital w
U+1D653	<i><b>X</b></i>	<i><b>X</b></i>	<i><b>X</b></i>	<i><b>X</b></i>	<i><b>X</b></i>	<i><b>X</b></i>	<code>\mbfitsansX</code>	mathematical sans-serif bold italic capital x
U+1D654	<i><b>Y</b></i>	<i><b>Y</b></i>	<i><b>Y</b></i>	<i><b>Y</b></i>	<i><b>Y</b></i>	<i><b>Y</b></i>	<code>\mbfitsansY</code>	mathematical sans-serif bold italic capital y
U+1D655	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<code>\mbfitsansZ</code>	mathematical sans-serif bold italic capital z

### 15.2.16 Bold italic sans serif, Latin, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D656	<i><b>a</b></i>	<i><b>a</b></i>	<i><b>a</b></i>	<i><b>a</b></i>	<i><b>a</b></i>	<i><b>a</b></i>	<code>\mbfitsansa</code>	mathematical sans-serif bold italic small a
U+1D657	<i><b>b</b></i>	<i><b>b</b></i>	<i><b>b</b></i>	<i><b>b</b></i>	<i><b>b</b></i>	<i><b>b</b></i>	<code>\mbfitsansb</code>	mathematical sans-serif bold italic small b
U+1D658	<i><b>c</b></i>	<i><b>c</b></i>	<i><b>c</b></i>	<i><b>c</b></i>	<i><b>c</b></i>	<i><b>c</b></i>	<code>\mbfitsansc</code>	mathematical sans-serif bold italic small c

usv	L	S	E	P	A	N	Macro	Description
U+1D659	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<code>\mbfitsansd</code>	mathematical sans-serif bold italic small d
U+1D65A	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>	<code>\mbfitsanse</code>	mathematical sans-serif bold italic small e
U+1D65B	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<code>\mbfitsansf</code>	mathematical sans-serif bold italic small f
U+1D65C	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<i>g</i>	<code>\mbfitsansg</code>	mathematical sans-serif bold italic small g
U+1D65D	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<i>h</i>	<code>\mbfitsansh</code>	mathematical sans-serif bold italic small h
U+1D65E	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<code>\mbfitsansi</code>	mathematical sans-serif bold italic small i
U+1D65F	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<i>j</i>	<code>\mbfitsansj</code>	mathematical sans-serif bold italic small j
U+1D660	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<code>\mbfitsansk</code>	mathematical sans-serif bold italic small k
U+1D661	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<code>\mbfitsansl</code>	mathematical sans-serif bold italic small l
U+1D662	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>m</i>	<code>\mbfitsansm</code>	mathematical sans-serif bold italic small m
U+1D663	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<code>\mbfitsansn</code>	mathematical sans-serif bold italic small n
U+1D664	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>	<code>\mbfitsanso</code>	mathematical sans-serif bold italic small o
U+1D665	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<code>\mbfitsansp</code>	mathematical sans-serif bold italic small p
U+1D666	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<i>q</i>	<code>\mbfitsansq</code>	mathematical sans-serif bold italic small q
U+1D667	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<code>\mbfitsansr</code>	mathematical sans-serif bold italic small r
U+1D668	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<code>\mbfitsanss</code>	mathematical sans-serif bold italic small s
U+1D669	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<i>t</i>	<code>\mbfitsanst</code>	mathematical sans-serif bold italic small t

USV	L	S	E	P	A	N	Macro	Description
U+1D66A	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<b>u</b>	<code>\mbfitsansu</code>	mathematical sans-serif bold italic small u
U+1D66B	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<b>v</b>	<code>\mbfitsansv</code>	mathematical sans-serif bold italic small v
U+1D66C	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>w</b>	<code>\mbfitsansw</code>	mathematical sans-serif bold italic small w
U+1D66D	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<code>\mbfitsansx</code>	mathematical sans-serif bold italic small x
U+1D66E	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<code>\mbfitsansy</code>	mathematical sans-serif bold italic small y
U+1D66F	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<b>z</b>	<code>\mbfitsansz</code>	mathematical sans-serif bold italic small z

### 15.2.17 Bold sans serif Greek, uppercase

USV	L	S	E	P	A	N	Macro	Description
U+1D756	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<b>Α</b>	<code>\mbfsansAlpha</code>	mathematical sans-serif bold capital alpha
U+1D757	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<b>Β</b>	<code>\mbfsansBeta</code>	mathematical sans-serif bold capital beta
U+1D758	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<b>Γ</b>	<code>\mbfsansGamma</code>	mathematical sans-serif bold capital gamma
U+1D759	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<b>Δ</b>	<code>\mbfsansDelta</code>	mathematical sans-serif bold capital delta
U+1D75A	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<b>Ε</b>	<code>\mbfsansEpsilon</code>	mathematical sans-serif bold capital epsilon
U+1D75B	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<b>Ζ</b>	<code>\mbfsansZeta</code>	mathematical sans-serif bold capital zeta
U+1D75C	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<b>Η</b>	<code>\mbfsansEta</code>	mathematical sans-serif bold capital eta
U+1D75D	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<b>Θ</b>	<code>\mbfsansTheta</code>	mathematical sans-serif bold capital theta
U+1D75E	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<b>Ι</b>	<code>\mbfsansIota</code>	mathematical sans-serif bold capital iota

USV	L	S	E	P	A	N	Macro	Description
U+1D75F	Κ	κ	Κ	κ	Κ	κ	\mbfsansKappa	mathematical sans-serif bold capital kappa
U+1D760	Λ	λ	Λ	λ	Λ	λ	\mbfsansLambda	mathematical sans-serif bold capital lambda
U+1D761	Μ	μ	Μ	μ	Μ	μ	\mbfsansMu	mathematical sans-serif bold capital mu
U+1D762	Ν	ν	Ν	ν	Ν	ν	\mbfsansNu	mathematical sans-serif bold capital nu
U+1D763	Ξ	ξ	Ξ	ξ	Ξ	ξ	\mbfsansXi	mathematical sans-serif bold capital xi
U+1D764	Ο	ο	Ο	ο	Ο	ο	\mbfsansOmicron	mathematical sans-serif bold capital omicron
U+1D765	Π	π	Π	π	Π	π	\mbfsansPi	mathematical sans-serif bold capital pi
U+1D766	Ρ	ρ	Ρ	ρ	Ρ	ρ	\mbfsansRho	mathematical sans-serif bold capital rho
U+1D767	Θ	θ	Θ	θ	Θ	θ	\mbfsansvarTheta	mathematical sans-serif bold capital theta symbol
U+1D768	Σ	σ	Σ	σ	Σ	σ	\mbfsansSigma	mathematical sans-serif bold capital sigma
U+1D769	Τ	τ	Τ	τ	Τ	τ	\mbfsansTau	mathematical sans-serif bold capital tau
U+1D76A	Υ	υ	Υ	υ	Υ	υ	\mbfsansUpsilon	mathematical sans-serif bold capital upsilon
U+1D76B	Φ	φ	Φ	φ	Φ	φ	\mbfsansPhi	mathematical sans-serif bold capital phi
U+1D76C	Χ	χ	Χ	χ	Χ	χ	\mbfsansChi	mathematical sans-serif bold capital chi
U+1D76D	Ψ	ψ	Ψ	ψ	Ψ	ψ	\mbfsansPsi	mathematical sans-serif bold capital psi
U+1D76E	Ω	ω	Ω	ω	Ω	ω	\mbfsansOmega	mathematical sans-serif bold capital omega

### 15.2.18 Bold sans serif Greek, lowercase

usv	L	S	E	P	A	N	Macro	Description
U+1D770	α	α	α	α	α	α	\mbfsansalpha	mathematical sans-serif bold small alpha
U+1D771	β	β	β	β	β	β	\mbfsansbeta	mathematical sans-serif bold small beta
U+1D772	γ	γ	γ	γ	γ	γ	\mbfsansgamma	mathematical sans-serif bold small gamma
U+1D773	δ	δ	δ	δ	δ	δ	\mbfsansdelta	mathematical sans-serif bold small delta
U+1D774	ε	ε	ε	ε	ε	ε	\mbfsansvarepsilon	mathematical sans-serif bold small varepsilon
U+1D775	ζ	ζ	ζ	ζ	ζ	ζ	\mbfsanszeta	mathematical sans-serif bold small zeta
U+1D776	η	η	η	η	η	η	\mbfsanseta	mathematical sans-serif bold small eta
U+1D777	θ	θ	θ	θ	θ	θ	\mbfsanstheta	mathematical sans-serif bold small theta
U+1D778	ι	ι	ι	ι	ι	ι	\mbfsansiota	mathematical sans-serif bold small iota
U+1D779	κ	κ	κ	κ	κ	κ	\mbfsanskappa	mathematical sans-serif bold small kappa
U+1D77A	λ	λ	λ	λ	λ	λ	\mbfsanslambda	mathematical sans-serif bold small lambda
U+1D77B	μ	μ	μ	μ	μ	μ	\mbfsansmu	mathematical sans-serif bold small mu
U+1D77C	ν	ν	ν	ν	ν	ν	\mbfsansnu	mathematical sans-serif bold small nu
U+1D77D	ξ	ξ	ξ	ξ	ξ	ξ	\mbfsansxi	mathematical sans-serif bold small xi
U+1D77E	ο	ο	ο	ο	ο	ο	\mbfsansomicron	mathematical sans-serif bold small omicron
U+1D77F	π	π	π	π	π	π	\mbfsanspi	mathematical sans-serif bold small pi
U+1D780	ρ	ρ	ρ	ρ	ρ	ρ	\mbfsansrho	mathematical sans-serif bold small rho

usv	L	S	E	P	A	N	Macro	Description
U+1D781	ς	ς	ς	ς	ς	ς	\mbfsansvarsigma	mathematical sans-serif bold small final sigma
U+1D782	σ	σ	σ	σ	σ	σ	\mbfsanssigma	mathematical sans-serif bold small sigma
U+1D783	τ	τ	τ	τ	τ	τ	\mbfsanstau	mathematical sans-serif bold small tau
U+1D784	υ	υ	υ	υ	υ	υ	\mbfsansupsilon	mathematical sans-serif bold small upsilon
U+1D785	φ	φ	φ	φ	φ	φ	\mbfsansvarphi	mathematical sans-serif bold small phi
U+1D786	χ	χ	χ	χ	χ	χ	\mbfsanschi	mathematical sans-serif bold small chi
U+1D787	ψ	ψ	ψ	ψ	ψ	ψ	\mbfsanspsi	mathematical sans-serif bold small psi
U+1D788	ω	ω	ω	ω	ω	ω	\mbfsansomega	mathematical sans-serif bold small omega
U+1D789	∂	∂	∂	∂	∂	∂	\mbfsanspartial	mathematical sans-serif bold partial differential
U+1D78A	ε	ε	ε	ε	ε		\mbfsansepsilon	mathematical sans-serif bold varepsilon symbol
U+1D78B	θ	θ	θ	θ	θ		\mbfsansvartheta	mathematical sans-serif bold theta symbol
U+1D78C	κ	κ	κ	κ	κ		\mbfsansvarkappa	mathematical sans-serif bold kappa symbol
U+1D78D	φ	φ	φ	φ	φ		\mbfsansphi	mathematical sans-serif bold phi symbol
U+1D78E	ρ	ρ	ρ	ρ	ρ		\mbfsansvarrho	mathematical sans-serif bold rho symbol
U+1D78F	π	π	π	π	π		\mbfsansvarpi	mathematical sans-serif bold pi symbol

### 15.2.19 Bold italic sans serif Greek, uppercase



USV	L	S	E	P	A	N	Macro	Description
U+1D790	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<i><b>A</b></i>	<code>\mbfitsansAlpha</code>	mathematical sans-serif bold italic capital alpha
U+1D791	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<i><b>B</b></i>	<code>\mbfitsansBeta</code>	mathematical sans-serif bold italic capital beta
U+1D792	<i><b>Γ</b></i>	<i><b>Γ</b></i>	<i><b>Γ</b></i>	<i><b>Γ</b></i>	<i><b>Γ</b></i>	<i><b>Γ</b></i>	<code>\mbfitsansGamma</code>	mathematical sans-serif bold italic capital gamma
U+1D793	<i><b>Δ</b></i>	<i><b>Δ</b></i>	<i><b>Δ</b></i>	<i><b>Δ</b></i>	<i><b>Δ</b></i>	<i><b>Δ</b></i>	<code>\mbfitsansDelta</code>	mathematical sans-serif bold italic capital delta
U+1D794	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<i><b>E</b></i>	<code>\mbfitsansEpsilon</code>	mathematical sans-serif bold italic capital epsilon
U+1D795	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<i><b>Z</b></i>	<code>\mbfitsansZeta</code>	mathematical sans-serif bold italic capital zeta
U+1D796	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<i><b>H</b></i>	<code>\mbfitsansEta</code>	mathematical sans-serif bold italic capital eta
U+1D797	<i><b>Θ</b></i>	<i><b>Θ</b></i>	<i><b>Θ</b></i>	<i><b>Θ</b></i>	<i><b>Θ</b></i>	<i><b>Θ</b></i>	<code>\mbfitsansTheta</code>	mathematical sans-serif bold italic capital theta
U+1D798	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<i><b>I</b></i>	<code>\mbfitsansIota</code>	mathematical sans-serif bold italic capital iota
U+1D799	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<i><b>K</b></i>	<code>\mbfitsansKappa</code>	mathematical sans-serif bold italic capital kappa
U+1D79A	<i><b>Λ</b></i>	<i><b>Λ</b></i>	<i><b>Λ</b></i>	<i><b>Λ</b></i>	<i><b>Λ</b></i>	<i><b>Λ</b></i>	<code>\mbfitsansLambda</code>	mathematical sans-serif bold italic capital lambda
U+1D79B	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<i><b>M</b></i>	<code>\mbfitsansMu</code>	mathematical sans-serif bold italic capital mu
U+1D79C	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<i><b>N</b></i>	<code>\mbfitsansNu</code>	mathematical sans-serif bold italic capital nu
U+1D79D	<i><b>Ξ</b></i>	<i><b>Ξ</b></i>	<i><b>Ξ</b></i>	<i><b>Ξ</b></i>	<i><b>Ξ</b></i>	<i><b>Ξ</b></i>	<code>\mbfitsansXi</code>	mathematical sans-serif bold italic capital xi
U+1D79E	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<i><b>O</b></i>	<code>\mbfitsansOmicron</code>	mathematical sans-serif bold italic capital omicron
U+1D79F	<i><b>Π</b></i>	<i><b>Π</b></i>	<i><b>Π</b></i>	<i><b>Π</b></i>	<i><b>Π</b></i>	<i><b>Π</b></i>	<code>\mbfitsansPi</code>	mathematical sans-serif bold italic capital pi
U+1D7A0	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<i><b>P</b></i>	<code>\mbfitsansRho</code>	mathematical sans-serif bold italic capital rho

USV	L	S	E	P	A	N	Macro	Description
U+1D7A1	<b>Θ</b>	<b>θ</b>	<b>Θ</b>	<b>θ</b>	<b>Θ</b>	<b>Θ</b>	<code>\mbfitsansvarTheta</code>	mathematical sans-serif bold italic capital theta symbol
U+1D7A2	<b>Σ</b>	<b>Σ</b>	<b>Σ</b>	<b>Σ</b>	<b>Σ</b>	<b>Σ</b>	<code>\mbfitsansSigma</code>	mathematical sans-serif bold italic capital sigma
U+1D7A3	<b>Τ</b>	<b>Τ</b>	<b>Τ</b>	<b>Τ</b>	<b>Τ</b>	<b>Τ</b>	<code>\mbfitsansTau</code>	mathematical sans-serif bold italic capital tau
U+1D7A4	<b>Υ</b>	<b>Υ</b>	<b>Υ</b>	<b>Υ</b>	<b>Υ</b>	<b>Υ</b>	<code>\mbfitsansUpsilon</code>	mathematical sans-serif bold italic capital upsilon
U+1D7A5	<b>Φ</b>	<b>Φ</b>	<b>Φ</b>	<b>Φ</b>	<b>Φ</b>	<b>Φ</b>	<code>\mbfitsansPhi</code>	mathematical sans-serif bold italic capital phi
U+1D7A6	<b>Χ</b>	<b>Χ</b>	<b>Χ</b>	<b>Χ</b>	<b>Χ</b>	<b>Χ</b>	<code>\mbfitsansChi</code>	mathematical sans-serif bold italic capital chi
U+1D7A7	<b>Ψ</b>	<b>Ψ</b>	<b>Ψ</b>	<b>Ψ</b>	<b>Ψ</b>	<b>Ψ</b>	<code>\mbfitsansPsi</code>	mathematical sans-serif bold italic capital psi
U+1D7A8	<b>Ω</b>	<b>Ω</b>	<b>Ω</b>	<b>Ω</b>	<b>Ω</b>	<b>Ω</b>	<code>\mbfitsansOmega</code>	mathematical sans-serif bold italic capital omega

### 15.2.20 Bold italic sans serif Greek, lowercase

USV	L	S	E	P	A	N	Macro	Description
U+1D7AA	<b>α</b>	<b>α</b>	<b>α</b>	<b>α</b>	<b>α</b>	<b>α</b>	<code>\mbfitsansalpha</code>	mathematical sans-serif bold italic small alpha
U+1D7AB	<b>β</b>	<b>β</b>	<b>β</b>	<b>β</b>	<b>β</b>	<b>β</b>	<code>\mbfitsansbeta</code>	mathematical sans-serif bold italic small beta
U+1D7AC	<b>γ</b>	<b>γ</b>	<b>γ</b>	<b>γ</b>	<b>γ</b>	<b>γ</b>	<code>\mbfitsansgamma</code>	mathematical sans-serif bold italic small gamma
U+1D7AD	<b>δ</b>	<b>δ</b>	<b>δ</b>	<b>δ</b>	<b>δ</b>	<b>δ</b>	<code>\mbfitsansdelta</code>	mathematical sans-serif bold italic small delta
U+1D7AE	<b>ε</b>	<b>ε</b>	<b>ε</b>	<b>ε</b>	<b>ε</b>	<b>ε</b>	<code>\mbfitsansvarepsilon</code>	mathematical sans-serif bold italic small varepsilon
U+1D7AF	<b>ζ</b>	<b>ζ</b>	<b>ζ</b>	<b>ζ</b>	<b>ζ</b>	<b>ζ</b>	<code>\mbfitsanszeta</code>	mathematical sans-serif bold italic small zeta
U+1D7B0	<b>η</b>	<b>η</b>	<b>η</b>	<b>η</b>	<b>η</b>	<b>η</b>	<code>\mbfitsanseta</code>	mathematical sans-serif bold italic small eta

USV	L	S	E	P	A	N	Macro	Description
U+1D7B1	$\theta$	$\theta$	$\theta$	$\theta$	$\theta$	$\theta$	<code>\mbfitsanstheta</code>	mathematical sans-serif bold italic small theta
U+1D7B2	$\iota$	$\iota$	$\iota$	$\iota$	$\iota$	$\iota$	<code>\mbfitsansiota</code>	mathematical sans-serif bold italic small iota
U+1D7B3	$\kappa$	$\kappa$	$\kappa$	$\kappa$	$\kappa$	$\kappa$	<code>\mbfitsanskappa</code>	mathematical sans-serif bold italic small kappa
U+1D7B4	$\lambda$	$\lambda$	$\lambda$	$\lambda$	$\lambda$	$\lambda$	<code>\mbfitsanslambda</code>	mathematical sans-serif bold italic small lambda
U+1D7B5	$\mu$	$\mu$	$\mu$	$\mu$	$\mu$	$\mu$	<code>\mbfitsansmu</code>	mathematical sans-serif bold italic small mu
U+1D7B6	$\nu$	$\nu$	$\nu$	$\nu$	$\nu$	$\nu$	<code>\mbfitsansnu</code>	mathematical sans-serif bold italic small nu
U+1D7B7	$\xi$	$\xi$	$\xi$	$\xi$	$\xi$	$\xi$	<code>\mbfitsansxi</code>	mathematical sans-serif bold italic small xi
U+1D7B8	$\omicron$	$\omicron$	$\omicron$	$\omicron$	$\omicron$	$\omicron$	<code>\mbfitsansomicron</code>	mathematical sans-serif bold italic small omicron
U+1D7B9	$\pi$	$\pi$	$\pi$	$\pi$	$\pi$	$\pi$	<code>\mbfitsanspi</code>	mathematical sans-serif bold italic small pi
U+1D7BA	$\rho$	$\rho$	$\rho$	$\rho$	$\rho$	$\rho$	<code>\mbfitsansrho</code>	mathematical sans-serif bold italic small rho
U+1D7BB	$\varsigma$	$\varsigma$	$\varsigma$	$\varsigma$	$\varsigma$	$\varsigma$	<code>\mbfitsansvarsigma</code>	mathematical sans-serif bold italic small final sigma
U+1D7BC	$\sigma$	$\sigma$	$\sigma$	$\sigma$	$\sigma$	$\sigma$	<code>\mbfitsanssigma</code>	mathematical sans-serif bold italic small sigma
U+1D7BD	$\tau$	$\tau$	$\tau$	$\tau$	$\tau$	$\tau$	<code>\mbfitsanstau</code>	mathematical sans-serif bold italic small tau
U+1D7BE	$\upsilon$	$\upsilon$	$\upsilon$	$\upsilon$	$\upsilon$	$\upsilon$	<code>\mbfitsansupsilon</code>	mathematical sans-serif bold italic small upsilon
U+1D7BF	$\varphi$	$\varphi$	$\varphi$	$\varphi$	$\varphi$	$\varphi$	<code>\mbfitsansvarphi</code>	mathematical sans-serif bold italic small phi
U+1D7C0	$\chi$	$\chi$	$\chi$	$\chi$	$\chi$	$\chi$	<code>\mbfitsanschi</code>	mathematical sans-serif bold italic small chi
U+1D7C1	$\psi$	$\psi$	$\psi$	$\psi$	$\psi$	$\psi$	<code>\mbfitsanspsi</code>	mathematical sans-serif bold italic small psi

usv	L	S	E	P	A	N	Macro	Description
U+1D7C2	$\omega$	$\omega$	$\omega$	$\omega$	$\omega$	$\omega$	<code>\mbfitsansomega</code>	mathematical sans-serif bold italic small omega
U+1D7C3	$\partial$	$\partial$	$\partial$	$\partial$	$\partial$	$\partial$	<code>\mbfitsanspartial</code>	mathematical sans-serif bold italic partial differential
U+1D7C4	$\epsilon$	$\epsilon$	$\epsilon$	$\epsilon$	$\epsilon$		<code>\mbfitsansepsilon</code>	mathematical sans-serif bold italic varepsilon symbol
U+1D7C5	$\vartheta$	$\vartheta$	$\vartheta$	$\vartheta$	$\vartheta$		<code>\mbfitsansvartheta</code>	mathematical sans-serif bold italic theta symbol
U+1D7C6	$\varkappa$	$\varkappa$	$\varkappa$	$\varkappa$	$\varkappa$		<code>\mbfitsansvarkappa</code>	mathematical sans-serif bold italic kappa symbol
U+1D7C7	$\phi$	$\phi$	$\phi$	$\phi$	$\phi$		<code>\mbfitsansphi</code>	mathematical sans-serif bold italic phi symbol
U+1D7C8	$\varrho$	$\varrho$	$\varrho$	$\varrho$	$\varrho$		<code>\mbfitsansvarrho</code>	mathematical sans-serif bold italic rho symbol
U+1D7C9	$\varpi$	$\varpi$	$\varpi$	$\varpi$	$\varpi$		<code>\mbfitsansvarpi</code>	mathematical sans-serif bold italic pi symbol

### 15.3 Miscellaneous

usv	L	S	E	P	A	N	Macro	Description
U+000F0	$\eth$	$\eth$	$\eth$	$\eth$	$\eth$	$\eth$	<code>\matheth</code>	eth
U+02010	-	-	-	-		-	<code>\mathhyphen</code>	hyphen
U+02102	$\textcircled{C}$	$\textcircled{C}$	$\textcircled{C}$	$\textcircled{C}$	$\textcircled{C}$	$\textcircled{C}$	<code>\BbbC</code>	/bbb c, open face c
U+0210A		$\textit{g}$	$\textit{g}$	$\textit{g}$	$\textit{g}$		<code>\mscr g</code>	/scr g, script letter g
U+0210B	$\mathcal{H}$	$\mathcal{H}$	$\mathcal{H}$	$\mathcal{H}$	$\mathcal{H}$	$\mathcal{H}$	<code>\mscrH</code>	hamiltonian (script capital h)
U+0210C	$\mathfrak{H}$	$\mathfrak{H}$	$\mathfrak{H}$	$\mathfrak{H}$	$\mathfrak{H}$	$\mathfrak{H}$	<code>\mfracH</code>	/frak h, upper case h
U+0210D	$\textcircled{H}$	$\textcircled{H}$	$\textcircled{H}$	$\textcircled{H}$	$\textcircled{H}$	$\textcircled{H}$	<code>\BbbH</code>	/bbb h, open face h
U+0210F	$\hslash$	$\hslash$	$\hslash$	$\hslash$	$\hslash$	$\hslash$	<code>\hslash<sup>(a)</sup></code>	/hslash - variant planck's over 2pi

usv	L	S	E	P	A	N	Macro	Description
U+02110	<i>ℐ</i>	<i>ℑ</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrI</code>	/scr i, script letter i
U+02111	<i>ℑ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\Im<sup>(p)</sup></code>	imaginary part
U+02112	<i>ℒ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrL</code>	lagrangian (script capital l)
U+02113	<i>ℓ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\ell<sup>(p)</sup></code>	cursive small l
U+02115	<i>ℕ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\BbbN</code>	/bbb n, open face n
U+02118	<i>℘</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\wp<sup>(p)</sup></code>	weierstrass p
U+02119	<i>ℙ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\BbbP</code>	/bbb p, open face p
U+0211A	<i>ℚ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\BbbQ</code>	/bbb q, open face q
U+0211B	<i>ℛ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrR</code>	/scr r, script letter r
U+0211C	<i>ℜ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\Re<sup>(p)</sup></code>	real part
U+0211D	<i>ℝ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\BbbR</code>	/bbb r, open face r
U+02124	<i>ℤ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\BbbZ</code>	/bbb z, open face z
U+02128	<i>ℤ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mfracZ</code>	/frak z, upper case z
U+02129		<i>ι</i>			<i>ι</i>		<code>\turnediota</code>	turned iota
U+0212B	<i>Å</i>	<i>Å</i>	<i>Å</i>	<i>Å</i>	<i>Å</i>	<i>Å</i>	<code>\Angstrom</code>	angstrom capital a, ring
U+0212C	<i>ℬ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrB</code>	bernoulli function (script capital b)
U+0212D	<i>℥</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mfracC</code>	black-letter capital c
U+0212F		<i>ℓ</i>	<i>℔</i>	<i>℔</i>	<i>ℕ</i>		<code>\mscre</code>	/scr e, script letter e
U+02130	<i>ℰ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrE</code>	/scr e, script letter e
U+02131	<i>ℱ</i>	<i>℔</i>	<i>ℒ</i>	<i>℔</i>	<i>ℕ</i>	<i>№</i>	<code>\mscrF</code>	/scr f, script letter f

usv	L	S	E	P	A	N	Macro	Description
U+02133	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<code>\mscrM</code>	physics m-matrix (script capital m)
U+02134		<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>		<code>\mscro</code>	order of (script small o)
U+02135	<i>ℵ</i>	<i>ℵ</i>	<i>ℵ</i>	<i>ℵ</i>	<i>ℵ</i>	<i>ℵ</i>	<code>\aleph<sup>(p)</sup></code>	aleph, hebrew
U+02136	<i>ב</i>	<i>ב</i>	<i>ב</i>	<i>ב</i>	<i>ב</i>	<i>ב</i>	<code>\beth<sup>(a)</sup></code>	beth, hebrew
U+02137	<i>ג</i>	<i>ג</i>	<i>ג</i>	<i>ג</i>	<i>ג</i>	<i>ג</i>	<code>\gimel<sup>(a)</sup></code>	gimel, hebrew
U+02138	<i>ד</i>	<i>ד</i>	<i>ד</i>	<i>ד</i>	<i>ד</i>	<i>ד</i>	<code>\daleth<sup>(a)</sup></code>	daleth, hebrew
U+0213D	<i>Ɑ</i>	<i>Ɑ</i>	<i>Ɑ</i>	<i>Ɑ</i>	<i>Ɑ</i>	<i>Ɑ</i>	<code>\Bbbgamma</code>	double-struck small gamma
U+0213E	<i>Γ</i>	<i>Γ</i>	<i>Γ</i>	<i>Γ</i>	<i>Γ</i>	<i>Γ</i>	<code>\BbbGamma</code>	double-struck capital gamma
U+0213F	<i>Π</i>	<i>Π</i>	<i>Π</i>	<i>Π</i>	<i>Π</i>	<i>Π</i>	<code>\BbbPi</code>	double-struck capital pi
U+02202	<i>∂</i>	<i>∂</i>	<i>∂</i>	<i>∂</i>	<i>∂</i>	<i>∂</i>	<code>\partial<sup>(p)</sup></code>	partial differential
U+02207	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<code>\nabla<sup>(p)</sup></code>	nabla, del, hamilton operator
U+1D6A4	<i>ı</i>	<i>ı</i>	<i>ı</i>	<i>ı</i>	<i>ı</i>	<i>ı</i>	<code>\imath<sup>(p)</sup></code>	mathematical italic small dotless i
U+1D6A5	<i>ȷ</i>	<i>ȷ</i>	<i>ȷ</i>	<i>ȷ</i>		<i>ȷ</i>	<code>\jmath<sup>(p)</sup></code>	mathematical italic small dotless j
U+1D6C1	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<code>\mbfnabla</code>	mathematical bold nabla
U+1D6FB	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<i>∇</i>	<code>\mitnabla</code>	mathematical italic nabla
U+1D735	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<code>\mbfitnabla</code>	mathematical bold italic nabla
U+1D76F	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<b>∇</b>	<code>\mbfsansnabla</code>	mathematical sans-serif bold nabla
U+1D7A9	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<b><i>∇</i></b>	<code>\mbfitsansnabla</code>	mathematical sans-serif bold italic nabla
U+1D7CA		<b>Ɔ</b>			<b>Ɔ</b>		<code>\mbfDigamma</code>	mathematical bold capital digamma

usv	L	S	E	P	A	N	Macro	Description
U+1D7CB		𝒻			𝒻		\mbfdigamma	mathematical bold small digamma