

Letterlike Symbols

Range: 2100–214F

This file contains an excerpt from the character code tables and list of character names for

The Unicode Standard, Version 17.0 BETA REVIEW DRAFT

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See <https://www.unicode.org/errata/> for an up-to-date list of errata.

See <https://www.unicode.org/charts/> for access to a complete list of the latest character code charts. See <https://www.unicode.org/charts/PDF/Unicode-17.0/> for charts showing only the characters added in Unicode 17.0. See <https://www.unicode.org/Public/17.0.0/charts/> for a complete archived file of character code charts for Unicode 17.0. See <https://www.unicode.org/charts/About.html#Conventions> for conventions used in these code charts, and other general information.

Disclaimer

These charts are provided as the online reference to the character contents of the Unicode Standard, Version 17.0 but do not provide all the information needed to fully support individual scripts using the Unicode Standard. For a complete understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode Standard, Version 17.0, online at <https://www.unicode.org/versions/Unicode17.0.0/>, as well as the Unicode Standard Annexes, the other Unicode Technical Reports and Standards, and the Unicode Character Database, which are available online.

See <https://www.unicode.org/ucd/> and <https://www.unicode.org/reports/>

A thorough understanding of the information contained in these additional sources is required for a successful implementation.

Fonts

The shapes of the reference glyphs used in these code charts are not prescriptive. Considerable variation is to be expected in actual fonts.

See <https://www.unicode.org/charts/fonts.html> for a list.

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	210	211	212	213	214
0	a/c 2100	$\mathcal{J}$ 2110	SM 2120	$\mathcal{E}$ 2130	Σ 2140
1	a/s 2101	$\mathfrak{J}$ 2111	TEL 2121	$\mathcal{F}$ 2131	$\mathfrak{G}$ 2141
2	$\mathbb{C}$ 2102	$\mathcal{L}$ 2112	TM 2122	$\mathfrak{H}$ 2132	$\daleth$ 2142
3	$^{\circ}\text{C}$ 2103	ℓ 2113	$\mathfrak{V}$ 2123	$\mathcal{M}$ 2133	$\lrcorner$ 2143
4	¢ 2104	$\mathfrak{W}$ 2114	$\mathbb{Z}$ 2124	$\mathfrak{o}$ 2134	$\wedge$ 2144
5	c/o 2105	$\mathbb{N}$ 2115	$\mathfrak{Z}$ 2125	$\mathfrak{N}$ 2135	$\mathbb{D}$ 2145
6	c/u 2106	No 2116	Ω 2126	$\beth$ 2136	$\mathfrak{d}$ 2146
7	$\mathcal{E}$ 2107	® 2117	$\mathfrak{U}$ 2127	λ 2137	e 2147
8	$\mathfrak{D}$ 2108	$\mathfrak{O}$ 2118	$\mathfrak{Z}$ 2128	$\daleth$ 2138	$\mathfrak{i}$ 2148
9	$^{\circ}\text{F}$ 2109	$\mathbb{P}$ 2119	$\mathfrak{i}$ 2129	$\mathfrak{i}$ 2139	$\mathfrak{j}$ 2149
A	$\mathfrak{g}$ 210A	$\mathbb{Q}$ 211A	$\mathbb{K}$ 212A	$\mathfrak{O}$ 213A	$\mathfrak{P}$ 214A
B	$\mathcal{H}$ 210B	$\mathcal{R}$ 211B	Å 212B	FAX 213B	$\mathfrak{X}$ 214B
C	$\mathfrak{S}$ 210C	$\mathfrak{R}$ 211C	$\mathcal{B}$ 212C	π 213C	$\mathfrak{P}$ 214C
D	$\mathbb{H}$ 210D	$\mathbb{R}$ 211D	$\mathfrak{C}$ 212D	$\mathfrak{Y}$ 213D	A/s 214D
E	h 210E	$\mathbb{R}$ 211E	e 212E	Γ 213E	$\mathfrak{H}$ 214E
F	$\hbar$ 210F	$\mathbb{R}$ 211F	e 212F	Π 213F	$\mathfrak{w}$ 214F

Letterlike symbols

Some of the letterlike symbols are intended to complete the set of mathematical alphanumeric symbols starting at 1D400.

2100	‰	ACCOUNT OF ≈ 0061 a 002F / 0063 c
2101	‰	ADDRESSED TO THE SUBJECT = aux soins (de) → 214D ‰ aktieselskab ≈ 0061 a 002F / 0073 s
2102	ℂ	DOUBLE-STRUCK CAPITAL C = the set of complex numbers ≈ 0043 C latin capital letter c
2103	°C	DEGREE CELSIUS = degrees centigrade ≈ 00B0 ° 0043 C
2104	€	CENTRE LINE SYMBOL = clone
2105	‰	CARE OF ≈ 0063 c 002F / 006F o
2106	‰	CADA UNA • Spanish for “each one” ≈ 0063 c 002F / 0075 u
2107	ℰ	EULER CONSTANT → 0045 E latin capital letter e ≈ 0190 ℰ latin capital letter open e
2108	ℰ	SCRUPLE
2109	°F	DEGREE FAHRENHEIT ≈ 00B0 ° 0046 F
210A	ℊ	SCRIPT SMALL G = real number symbol ≈ 0067 g latin small letter g
210B	ℋ	SCRIPT CAPITAL H = Hamiltonian operator ~ 210B FE00 ℋ chancery style ~ 210B FE01 ℋ roundhand style ≈ 0048 H latin capital letter h
210C	ℋ	BLACK-LETTER CAPITAL H = Hilbert space ≈ 0048 H latin capital letter h
210D	ℋ	DOUBLE-STRUCK CAPITAL H ≈ 0048 H latin capital letter h
210E	ℏ	PLANCK CONSTANT = height, specific enthalpy, ... • simply a mathematical italic h; this character’s name results from legacy usage ≈ 0068 h latin small letter h
210F	ℏ	PLANCK CONSTANT OVER TWO PI = reduced Planck constant, Dirac constant → 045B ℏ cyrillic small letter tshe ≈ 0127 h latin small letter h with stroke
2110	ℐ	SCRIPT CAPITAL I ~ 2110 FE00 ℐ chancery style ~ 2110 FE01 ℐ roundhand style ≈ 0049 I latin capital letter i
2111	ℑ	BLACK-LETTER CAPITAL I = imaginary part ≈ 0049 I latin capital letter i
2112	ℒ	SCRIPT CAPITAL L = Laplace transform ~ 2112 FE00 ℒ chancery style ~ 2112 FE01 ℒ roundhand style ≈ 004C L latin capital letter l

2113	ℓ	SCRIPT SMALL L = mathematical symbol 'ell' = liter (traditional symbol) • despite its character name, this symbol is derived from a special italicized version of the small letter l • the SI recommended symbol for liter is 006C l or 004C L → 1D4C1 ℓ mathematical script small l ≈ 006C l latin small letter l
2114	£	L B BAR SYMBOL = pounds → 0023 # number sign
2115	ℕ	DOUBLE-STRUCK CAPITAL N = natural number • a glyph variant with doubled vertical strokes exists ≈ 004E N latin capital letter n
2116	№	NUMERO SIGN → 0023 # number sign → 00BA ° masculine ordinal indicator ≈ 004E N 006F o
2117	©	SOUND RECORDING COPYRIGHT = published = phonorecord sign → 00A9 © copyright sign → 24C5 (P) circled latin capital letter p
2118	℘	SCRIPT CAPITAL P × WEIERSTRASS ELLIPTIC FUNCTION • actually this has the form of a lowercase calligraphic p, despite its name
2119	ℙ	DOUBLE-STRUCK CAPITAL P ≈ 0050 P latin capital letter p
211A	ℚ	DOUBLE-STRUCK CAPITAL Q = the set of rational numbers ≈ 0051 Q latin capital letter q
211B	℞	SCRIPT CAPITAL R = Riemann Integral ~ 211B FE00 ℞ chancery style ~ 211B FE01 ℞ roundhand style ≈ 0052 R latin capital letter r
211C	℞	BLACK-LETTER CAPITAL R = real part ≈ 0052 R latin capital letter r
211D	ℝ	DOUBLE-STRUCK CAPITAL R = the set of real numbers ≈ 0052 R latin capital letter r
211E	℞	PRESCRIPTION TAKE = recipe = cross ratio
211F	℞	RESPONSE
2120	SM	SERVICE MARK ≈ <sup> 0053 S 004D M
2121	TEL	TELEPHONE SIGN • typical forms for this symbol may use lowercase, small caps or superscripted letter shapes → 260E ☎ black telephone → 2706 📍 telephone location sign → 1F4DE 📞 telephone receiver ≈ 0054 T 0045 E 004C L
2122	™	TRADE MARK SIGN → 1F12E (W) circled wz ≈ <sup> 0054 T 004D M
2123	℣	VERSICLE

- 2124 **ℤ** **DOUBLE-STRUCK CAPITAL Z**
= the set of integers
≈ 005A **Z** latin capital letter z
- 2125 **℥** **OUNCE SIGN**
→ 0292 **℥** latin small letter ezh
→ 1F773 **℥** alchemical symbol for half ounce
→ 2CF04 **℥**
- 2126 **Ω** **OHM SIGN**
• SI unit of resistance, named after G. S. Ohm, German physicist
• preferred representation is 03A9 **Ω**
→ 260A **Ω** ascending node
≡ 03A9 **Ω** greek capital letter omega
- 2127 **℧** **INVERTED OHM SIGN**
= mho
• archaic unit of conductance (= the SI unit siemens)
• typographically a turned greek capital letter omega
→ 01B1 **℧** latin capital letter upsilon
→ 03A9 **Ω** greek capital letter omega
→ 260B **℧** descending node
- 2128 **ℑ** **BLACK-LETTER CAPITAL Z**
≈ 005A **Z** latin capital letter z
- 2129 **ι** **TURNED GREEK SMALL LETTER IOTA**
• unique element fulfilling a description (logic)
→ 03B9 **ι** greek small letter iota
- 212A **K** **KELVIN SIGN**
≡ 004B **K** latin capital letter k
- 212B **Å** **ANGSTROM SIGN**
• non SI length unit (=0.1 nm) named after A. J. Ångström, Swedish physicist
• preferred representation is 00C5 **Å**
≡ 00C5 **Å** latin capital letter a with ring above
- 212C **ℬ** **SCRIPT CAPITAL B**
= Bernoulli function
~ 212C FE00 **ℬ** chancery style
~ 212C FE01 **ℬ** roundhand style
≈ 0042 **B** latin capital letter b
- 212D **ℭ** **BLACK-LETTER CAPITAL C**
≈ 0043 **C** latin capital letter c
- 212E **e** **ESTIMATED SYMBOL**
• used in European packaging
→ 0065 **e** latin small letter e
- 212F **ℯ** **SCRIPT SMALL E**
= error
= natural exponent
≈ 0065 **e** latin small letter e
- 2130 **ℰ** **SCRIPT CAPITAL E**
= emf (electromotive force)
~ 2130 FE00 **ℰ** chancery style
~ 2130 FE01 **ℰ** roundhand style
≈ 0045 **E** latin capital letter e
- 2131 **ℱ** **SCRIPT CAPITAL F**
= Fourier transform
~ 2131 FE00 **ℱ** chancery style
~ 2131 FE01 **ℱ** roundhand style
≈ 0046 **F** latin capital letter f
- 2132 **Ⅎ** **TURNED CAPITAL F**
= Claudian digamma inversum
• lowercase is 214E **ɹ**
→ 0046 **F** latin capital letter f
→ 03DC **Ⅎ** greek letter digamma

- 2133 **ℳ** **SCRIPT CAPITAL M**
= M-matrix (physics)
= German Mark currency symbol, before WWII
• when used for the Mark symbol, the range of glyph variation is restricted
→ 20BB **ℳ** nordic mark sign
~ 2133 FE00 **ℳ** chancery style
~ 2133 FE01 **ℳ** roundhand style
≈ 004D **M** latin capital letter m
- 2134 **ℴ** **SCRIPT SMALL O**
= order, of inferior order to
≈ 006F **o** latin small letter o

Hebrew letterlike math symbols

These are left-to-right characters. They are used in notations of transfinite cardinals.

- 2135 **ℵ** **ALEF SYMBOL**
≈ 05D0 **ℵ** hebrew letter alef
- 2136 **ב** **BET SYMBOL**
≈ 05D1 **ב** hebrew letter bet
- 2137 **ג** **GIMEL SYMBOL**
≈ 05D2 **ג** hebrew letter gimel
- 2138 **ד** **DALET SYMBOL**
≈ 05D3 **ד** hebrew letter dalet

Additional letterlike symbols

- 2139 **ℹ** **INFORMATION SOURCE**
• intended for use with 20DD **©**
→ 1F6C8 **ℹ** circled information source
≈ 0069 **i** latin small letter i
- 213A **ℷ** **ROTATED CAPITAL Q**
• a binding signature mark
- 213B **Ⅎ** **FACSIMILE SIGN**
• typical forms for this symbol may use lowercase, small caps or superscripted letter shapes
→ 2121 **Ⅎ** telephone sign
→ 1F4E0 **Ⅎ** fax machine
≈ 0046 **F** 0041 **A** 0058 **X**
- 213C **ℰ** **DOUBLE-STRUCK SMALL PI**
≈ 03C0 **π** greek small letter pi
- 213D **ℳ** **DOUBLE-STRUCK SMALL GAMMA**
≈ 03B3 **γ** greek small letter gamma
- 213E **ℳ** **DOUBLE-STRUCK CAPITAL GAMMA**
≈ 0393 **Γ** greek capital letter gamma
- 213F **ℳ** **DOUBLE-STRUCK CAPITAL PI**
≈ 03A0 **Π** greek capital letter pi

Double-struck large operator

- 2140 **ℵ** **DOUBLE-STRUCK N-ARY SUMMATION**
≈ 2211 **Σ** n-ary summation

Additional letterlike symbols

- 2141 **ℴ** **TURNED SANS-SERIF CAPITAL G**
= game
→ A4E8 **ℴ** lisu letter hha
- 2142 **ℴ** **TURNED SANS-SERIF CAPITAL L**
→ A4F6 **ℴ** lisu letter uh
- 2143 **ℴ** **REVERSED SANS-SERIF CAPITAL L**
- 2144 **ℴ** **TURNED SANS-SERIF CAPITAL Y**
→ 11FB0 **ℴ** lisu letter yha

Double-struck italic math symbols

These stylized mathematical symbols are used in some documents to distinguish special mathematical usages from ordinary variables.

- 2145 $\mathbb{D}$ DOUBLE-STRUCK ITALIC CAPITAL D
 • sometimes used for the differential
 $\approx$ 0044 **D** latin capital letter d
- 2146 $\mathbb{d}$ DOUBLE-STRUCK ITALIC SMALL D
 • sometimes used for the differential
 $\approx$ 0064 **d** latin small letter d
- 2147 $\mathbb{e}$ DOUBLE-STRUCK ITALIC SMALL E
 • sometimes used for the natural exponent
 $\approx$ 0065 **e** latin small letter e
- 2148 $\mathbb{i}$ DOUBLE-STRUCK ITALIC SMALL I
 • sometimes used for the imaginary unit
 $\approx$ 0069 **i** latin small letter i
- 2149 $\mathbb{j}$ DOUBLE-STRUCK ITALIC SMALL J
 • sometimes used for the imaginary unit
 $\approx$ 006A **j** latin small letter j

Additional letterlike symbols

- 214A $\mathfrak{P}$ PROPERTY LINE
- 214B $\mathfrak{R}$ TURNED AMPERSAND
 • used in linear logic
 $\rightarrow$ 0026 **&** ampersand
- 214C $\mathfrak{P}$ PER SIGN
 • abbreviates the word ‘per’
- 214D $\mathfrak{A}\%$ AKTIESELSKAB
 $\rightarrow$ 2101 **%** addressed to the subject

Lowercase Claudian letter

Claudian letters in inscriptions are uppercase, but may be transcribed by scholars in lowercase.

- 214E $\mathfrak{f}$ TURNED SMALL F
 • uppercase is 2132 **f**
 $\rightarrow$ 03DD **F** greek small letter digamma

Biblical editorial symbol

- 214F $\mathfrak{S}$ SYMBOL FOR SAMARITAN SOURCE

Standardized Variation Sequences	
210B	 SCRIPT CAPITAL H 210B  chancery style 210B FE00  roundhand style 210B FE01  SCRIPT CAPITAL I
2110	2110  chancery style 2110 FE00  roundhand style 2110 FE01  SCRIPT CAPITAL L
2112	2112  chancery style 2112 FE00  roundhand style 2112 FE01  SCRIPT CAPITAL R
211B	211B  chancery style 211B FE00  roundhand style 211B FE01  SCRIPT CAPITAL B
212C	212C  chancery style 212C FE00  roundhand style 212C FE01  SCRIPT CAPITAL E
2130	2130  chancery style 2130 FE00  roundhand style 2130 FE01
2131	 SCRIPT CAPITAL F 2131  chancery style 2131 FE00  roundhand style 2131 FE01  SCRIPT CAPITAL M
2133	2133  chancery style 2133 FE00  roundhand style 2133 FE01