Supplemental Mathematical Operators

Range: 2A00–2FF

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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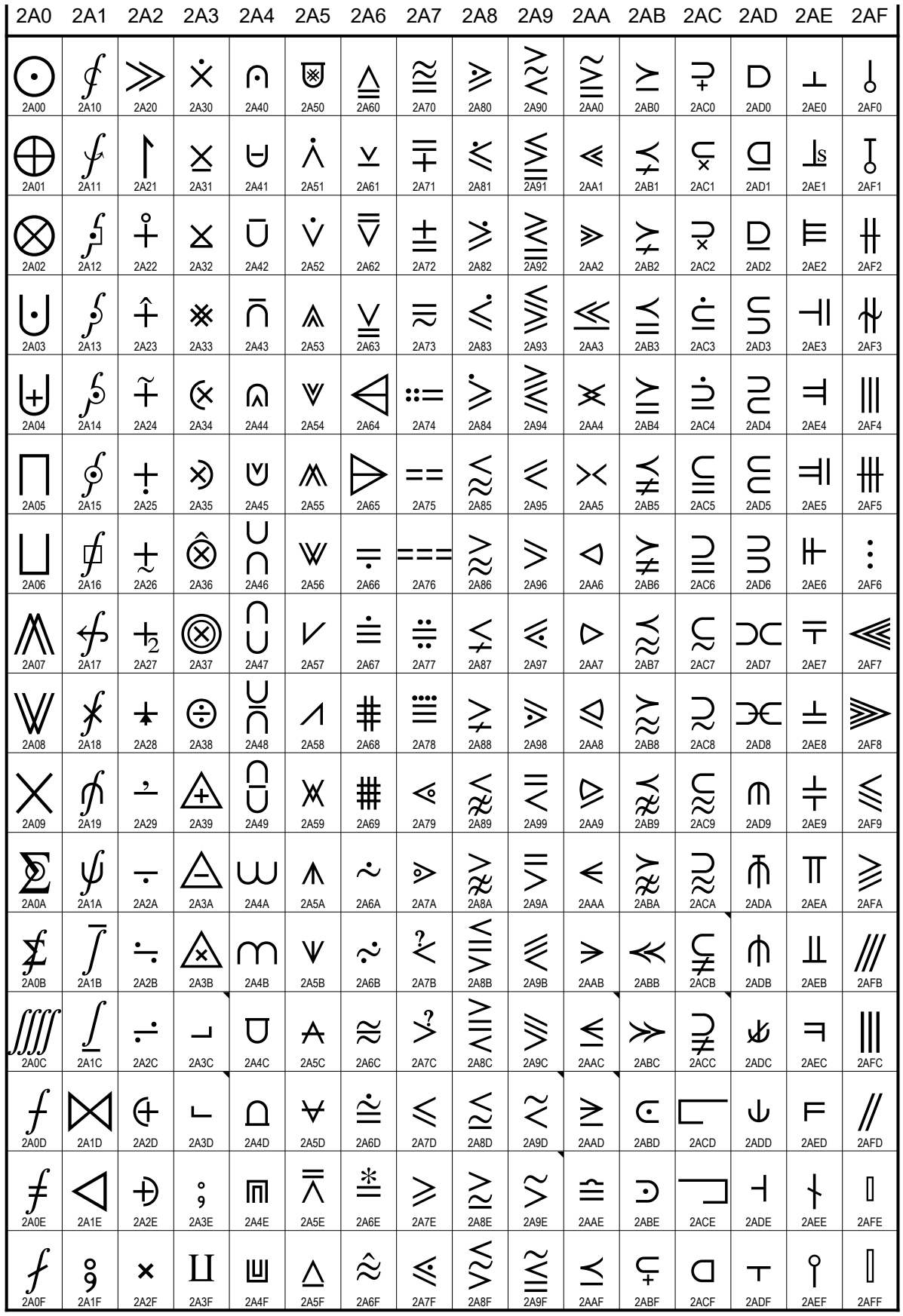

N-ary operators

2A00 ⨀ N-ARY CIRCLED DOT OPERATOR
→ 2299 ⊙ circled dot operator
→ 25C9 ◉ fisheye

2A01 ⨁ N-ARY CIRCLED PLUS OPERATOR
→ 2295 ⊕ circled plus

2A02 ⨂ N-ARY CIRCLED TIMES OPERATOR
→ 2297 ⊗ circled times
→ 2B59 ⨷ heavy circled saltire

2A03 ⨃ N-ARY UNION OPERATOR WITH DOT
→ 228D ⊍ multiset multiplication

2A04 ⨄ N-ARY UNION OPERATOR WITH PLUS
→ 228E ⊎ multiset union

2A05 ⨅ N-ARY SQUARE INTERSECTION OPERATOR
→ 2293 ⊓ square cap

2A06 ⨆ N-ARY SQUARE UNION OPERATOR
→ 2294 ⊔ square cup

2A07 ⩓ TWO LOGICAL AND OPERATOR
= merge
→ 2A55 ⩕ two intersecting logical and

2A08 ⩔ TWO LOGICAL OR OPERATOR
→ 2A56 ⩖ two intersecting logical or

2A09 ⨉ N-ARY TIMES OPERATOR
→ 00D7 × multiplication sign

Summations and integrals

2A0A ⨊ MODULO TWO SUM
→ 2211 ∑ n-ary summation

2A0B ⨋ SUMMATION WITH INTEGRAL

2A0C ⨌ QUADRUPLE INTEGRAL OPERATOR
→ 222D ∭ triple integral
≈ 222B ∫ 222B ∫ 222B ∫ 222B ∫

2A0D ⨍ FINITE PART INTEGRAL

2A0E ⨎ INTEGRAL WITH DOUBLE STROKE

2A0F ⨏ INTEGRAL AVERAGE WITH SLASH

2A10 ⨐ CIRCULATION FUNCTION

2A11 ⨑ ANTICLOCKWISE INTEGRATION

2A12 ⨒ LINE INTEGRATION WITH RECTANGULAR PATH AROUND POLE

2A13 ⨓ LINE INTEGRATION WITH SEMICIRCULAR PATH AROUND POLE

2A14 ⨔ LINE INTEGRATION NOT INCLUDING THE POLE

2A15 ⨕ INTEGRAL AROUND A POINT OPERATOR
→ 222E ∮ contour integral

2A16 ⨖ QUATERNION INTEGRAL OPERATOR

2A17 ⨗ INTEGRAL WITH LEFTWARDS ARROW WITH HOOK

2A18 ⨘ INTEGRAL WITH TIMES SIGN

2A19 ⨙ INTEGRAL WITH INTERSECTION

2A1A ⨚ INTEGRAL WITH UNION

2A1B ⨛ INTEGRAL WITH OVERBAR
= upper integral

2A1C ⨜ INTEGRAL WITH UNDERBAR
= lower integral

Miscellaneous large operators

2A1D ⨝ JOIN
= large bowtie
• relational database theory
→ 22C8 ⋈ bowtie
→ 27D7 ⟗ full outer join

2A1E ⨞ LARGE LEFT TRIANGLE OPERATOR
• relational database theory
→ 25C1 ◁ white left-pointing triangle

2A1F ⨟ Z NOTATION SCHEMA COMPOSITION
→ 2A3E ⨟ z notation relational composition

2A20 ⨠ Z NOTATION SCHEMA PIPING
→ 226B ≫ much greater-than

2A21 ⨡ Z NOTATION SCHEMA PROJECTION
→ 21BE ↾ upwards harpoon with barb rightwards

Plus and minus sign operators

2A22 ⨢ PLUS SIGN WITH SMALL CIRCLE ABOVE

2A23 ⨣ PLUS SIGN WITH CIRCUMFLEX ACCENT ABOVE

2A24 ⨤ PLUS SIGN WITH TILDE ABOVE
= positive difference or sum

2A25 ⨥ PLUS SIGN WITH DOT BELOW
→ 2214 ∔ dot plus

2A26 ⨦ PLUS SIGN WITH TILDE BELOW
= sum or positive difference

2A27 ⨧ PLUS SIGN WITH SUBSCRIPT TWO
= nim-addition

2A28 ⨨ PLUS SIGN WITH BLACK TRIANGLE

2A29 ⨩ MINUS SIGN WITH COMMA ABOVE

2A2A ⨪ MINUS SIGN WITH DOT BELOW
→ 2238 ∸ dot minus

2A2B ⨫ MINUS SIGN WITH FALLING DOTS

2A2C ⨬ MINUS SIGN WITH RISING DOTS

2A2D ⨭ PLUS SIGN IN LEFT HALF CIRCLE

2A2E ⨮ PLUS SIGN IN RIGHT HALF CIRCLE

Multiplication and division sign operators

2A2F ⨯ VECTOR OR CROSS PRODUCT
→ 00D7 × multiplication sign

2A30 ⨰ MULTIPLICATION SIGN WITH DOT ABOVE

2A31 ⨱ MULTIPLICATION SIGN WITH UNDERBAR

2A32 ⨲ SEMIDIRECT PRODUCT WITH BOTTOM CLOSED

2A33 ⨳ SMASH PRODUCT

2A34 ⨴ MULTIPLICATION SIGN IN LEFT HALF CIRCLE

2A35 ⨵ MULTIPLICATION SIGN IN RIGHT HALF CIRCLE

2A36 ⨶ CIRCLED MULTIPLICATION SIGN WITH CIRCUMFLEX ACCENT

2A37 ⨷ MULTIPLICATION SIGN IN DOUBLE CIRCLE

2A38 ⨸ CIRCLED DIVISION SIGN

Miscellaneous mathematical operators

2A39 ⨹ PLUS SIGN IN TRIANGLE

2A3A ⨺ MINUS SIGN IN TRIANGLE

2A3B ⨻ MULTIPLICATION SIGN IN TRIANGLE

2A3C ⨼ INTERIOR PRODUCT
→ 230B ⌋ right floor
~ 2A3C FE00 ⨼ tall variant with narrow foot

2A3D ⨽ RIGHTHAND INTERIOR PRODUCT
→ 230A ⌊ left floor
→ 2319 ⌙ turned not sign
~ 2A3D FE00 ⨽ tall variant with narrow foot

2A3E ⨾ Z NOTATION RELATIONAL COMPOSITION
→ 2A1F ⨟ z notation schema composition

2A3F ⨿ AMALGAMATION OR COPRODUCT
→ 2210 ∐ n-ary coproduct

Intersections and unions

2A40 ⩀ INTERSECTION WITH DOT
→ 2227 ∧ logical and
→ 27D1 ⟑ and with dot

2A41 ⩁ UNION WITH MINUS SIGN
= z notation bag subtraction
→ 228E ⊎ multiset union

2A42 ⩂ UNION WITH OVERBAR
2A43 ⩃ INTERSECTION WITH OVERBAR
2A44 ⩄ INTERSECTION WITH LOGICAL AND
2A45 ⩅ UNION WITH LOGICAL OR
2A46 ⩆ UNION ABOVE INTERSECTION
2A47 ⩇ INTERSECTION ABOVE UNION
2A48 ⩈ UNION ABOVE BAR ABOVE INTERSECTION
2A49 ⩉ INTERSECTION ABOVE BAR ABOVE UNION
2A4A ⩊ UNION BESIDE AND JOINED WITH UNION
2A4B ⩋ INTERSECTION BESIDE AND JOINED WITH INTERSECTION
2A4C ⩌ CLOSED UNION WITH SERIFS
→ 222A ∪ union
2A4D ⩍ CLOSED INTERSECTION WITH SERIFS
→ 2229 ∩ intersection
2A4E ⩎ DOUBLE SQUARE INTERSECTION
2A4F ⩏ DOUBLE SQUARE UNION
2A50 ⩐ CLOSED UNION WITH SERIFS AND SMASH PRODUCT

Logical ands and ors

2A51 ⩑ LOGICAL AND WITH DOT ABOVE
2A52 ⩒ LOGICAL OR WITH DOT ABOVE
2A53 ⩓ DOUBLE LOGICAL AND
2A54 ⩔ DOUBLE LOGICAL OR
2A55 ⩕ TWO INTERSECTING LOGICAL AND
→ 2A07 ⩇ two logical and operator
2A56 ⩖ TWO INTERSECTING LOGICAL OR
→ 2A08 ⩈ two logical or operator
2A57 ⩗ SLOPING LARGE OR
2A58 ⩘ SLOPING LARGE AND
2A59 ⩙ LOGICAL OR OVERLAPPING LOGICAL AND
2A5A ⩚ LOGICAL AND WITH MIDDLE STEM
2A5B ⩛ LOGICAL OR WITH MIDDLE STEM
2A5C ⩜ LOGICAL AND WITH HORIZONTAL DASH
2A5D ⩝ LOGICAL OR WITH HORIZONTAL DASH
2A5E ⩞ LOGICAL AND WITH DOUBLE OVERBAR
→ 2306 ⌆ perspective
2A5F ⩟ LOGICAL AND WITH UNDERBAR
2A60 ⩠ LOGICAL AND WITH DOUBLE UNDERBAR
→ 2259 ≙ estimates
2A61 ⩡ SMALL VEE WITH UNDERBAR
→ 225A ≚ equiangular to
2A62 ⩢ LOGICAL OR WITH DOUBLE OVERBAR
2A63 ⩣ LOGICAL OR WITH DOUBLE UNDERBAR
→ 225A ≚ equiangular to

Miscellaneous mathematical operators

2A64 ⩤ Z NOTATION DOMAIN ANTIRESTRICTION
2A65 ⩥ Z NOTATION RANGE ANTIRESTRICTION
→ 2332 ⌲ conical taper

Relational operators

2A66 ⩦ EQUALS SIGN WITH DOT BELOW
→ 2250 ≐ approaches the limit
2A67 ⩧ IDENTICAL WITH DOT ABOVE
2A68 ⩨ TRIPLE HORIZONTAL BAR WITH DOUBLE VERTICAL STROKE
= identical and parallel to
→ 22D5 ⋕ equal and parallel to
→ 29E5 ⧣ identical to and slanted parallel
2A69 ⩩ TRIPLE HORIZONTAL BAR WITH TRIPLE VERTICAL STROKE
2A6A ⩪ TILDE OPERATOR WITH DOT ABOVE
2A6B ⩫ TILDE OPERATOR WITH RISING DOTS
→ 223B ∻ homothetic
2A6C ⩬ SIMILAR MINUS SIMILAR
2A6D ⩭ CONGRUENT WITH DOT ABOVE
→ 2245 ≅ approximately equal to
2A6E ⩮ EQUALS WITH ASTERISK
→ 225B ≛ star equals
2A6F ⩯ ALMOST EQUAL TO WITH CIRCUMFLEX ACCENT
2A70 ⩰ APPROXIMATELY EQUAL OR EQUAL TO
→ 2245 ≅ approximately equal to
2A71 ⩱ EQUALS SIGN ABOVE PLUS SIGN
• black stands slightly better (chess notation)
2A72 ⩲ PLUS SIGN ABOVE EQUALS SIGN
• white stands slightly better (chess notation)
2A73 ⩳ EQUALS SIGN ABOVE TILDE OPERATOR
2A74 ⩴ DOUBLE COLON EQUAL
≈ 003A : 003A : 003D =
2A75 ⩵ TWO CONSECUTIVE EQUALS SIGNS
≈ 003D = 003D =
2A76 ⩶ THREE CONSECUTIVE EQUALS SIGNS
≈ 003D = 003D = 003D =
2A77 ⩷ EQUALS SIGN WITH TWO DOTS ABOVE AND TWO DOTS BELOW
2A78 ⩸ EQUIVALENT WITH FOUR DOTS ABOVE
2A79 ⩹ LESS-THAN WITH CIRCLE INSIDE
2A7A ⩺ GREATER-THAN WITH CIRCLE INSIDE
2A7B ⩻ LESS-THAN WITH QUESTION MARK ABOVE
2A7C ⩼ GREATER-THAN WITH QUESTION MARK ABOVE
2A7D ⩽ LESS-THAN OR SLANTED EQUAL TO
→ 2264 ≤ less-than or equal to
2A7E ⩾ GREATER-THAN OR SLANTED EQUAL TO
→ 2265 ≥ greater-than or equal to
2A7F ⩿ LESS-THAN OR SLANTED EQUAL TO WITH DOT INSIDE
2A80 ⪀ GREATER-THAN OR SLANTED EQUAL TO WITH DOT INSIDE
2A81 ⪁ LESS-THAN OR SLANTED EQUAL TO WITH DOT ABOVE
2A82 ⪂ GREATER-THAN OR SLANTED EQUAL TO WITH DOT ABOVE
2A83 ⪃ LESS-THAN OR SLANTED EQUAL TO WITH DOT ABOVE RIGHT
2A84 ⪄ GREATER-THAN OR SLANTED EQUAL TO WITH DOT ABOVE LEFT
2A85 ⪅ LESS-THAN OR APPROXIMATE
2A86 ⪆ GREATER-THAN OR APPROXIMATE
2A87 ⪇ LESS-THAN AND SINGLE-LINE NOT EQUAL TO
→ 2268 ≨ less-than but not equal to
2A88 ⪈ GREATER-THAN AND SINGLE-LINE NOT EQUAL TO
→ 2269 ≩ greater-than but not equal to
2A89 ⪉ LESS-THAN AND NOT APPROXIMATE
2A8A ⪊ GREATER-THAN AND NOT APPROXIMATE
2A8B ⪋ LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-THAN
→ 22DA ⋚ less-than equal to or greater-than
2A8C ⪌ GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-THAN
→ 22DB ⋛ greater-than equal to or less-than
2A8D ⪍ LESS-THAN ABOVE SIMILAR OR EQUAL
2A8E ⪎ GREATER-THAN ABOVE SIMILAR OR EQUAL
2A8F ⪏ LESS-THAN ABOVE SIMILAR ABOVE GREATER-THAN

2A90 ⪐ GREATER-THAN ABOVE SIMILAR ABOVE LESS-THAN
2A91 ⪑ LESS-THAN ABOVE GREATER-THAN ABOVE DOUBLE-LINE EQUAL
2A92 ⪒ GREATER-THAN ABOVE LESS-THAN ABOVE DOUBLE-LINE EQUAL
2A93 ⪓ LESS-THAN ABOVE SLANTED EQUAL ABOVE GREATER-THAN ABOVE SLANTED EQUAL
2A94 ⪔ GREATER-THAN ABOVE SLANTED EQUAL ABOVE LESS-THAN ABOVE SLANTED EQUAL
2A95 ⪕ SLANTED EQUAL TO OR LESS-THAN
→ 22DC ⋜ equal to or less-than
2A96 ⪖ SLANTED EQUAL TO OR GREATER-THAN
→ 22DD ⋝ equal to or greater-than
2A97 ⪗ SLANTED EQUAL TO OR LESS-THAN WITH DOT INSIDE
2A98 ⪘ SLANTED EQUAL TO OR GREATER-THAN WITH DOT INSIDE
2A99 ⪙ DOUBLE-LINE EQUAL TO OR LESS-THAN
→ 22DC ⋜ equal to or less-than
2A9A ⪚ DOUBLE-LINE EQUAL TO OR GREATER-THAN
→ 22DD ⋝ equal to or greater-than
2A9B ⪛ DOUBLE-LINE SLANTED EQUAL TO OR LESS-THAN
2A9C ⪜ DOUBLE-LINE SLANTED EQUAL TO OR GREATER-THAN
2A9D ⪝ SIMILAR OR LESS-THAN
~ 2A9D FE00 ⪝ with similar following the slant of the upper leg
2A9E ⪞ SIMILAR OR GREATER-THAN
~ 2A9E FE00 ⪞ with similar following the slant of the upper leg
2A9F ⪟ SIMILAR ABOVE LESS-THAN ABOVE EQUALS SIGN
2AA0 ⪠ SIMILAR ABOVE GREATER-THAN ABOVE EQUALS SIGN
2AA1 ⪡ DOUBLE NESTED LESS-THAN
= absolute continuity
→ 226A ≪ much less-than
2AA2 ⪢ DOUBLE NESTED GREATER-THAN
→ 226B ≫ much greater-than
2AA3 ⪣ DOUBLE NESTED LESS-THAN WITH UNDERBAR
2AA4 ⪤ GREATER-THAN OVERLAPPING LESS-THAN
2AA5 ⪥ GREATER-THAN BESIDE LESS-THAN
2AA6 ⪦ LESS-THAN CLOSED BY CURVE
2AA7 ⪧ GREATER-THAN CLOSED BY CURVE
2AA8 ⪨ LESS-THAN CLOSED BY CURVE ABOVE SLANTED EQUAL
2AA9 ⪩ GREATER-THAN CLOSED BY CURVE ABOVE SLANTED EQUAL
2AAA ⪪ SMALLER THAN
2AAB ⪫ LARGER THAN
2AAC ⪬ SMALLER THAN OR EQUAL TO
~ 2AAC FE00 ⪬ with slanted equal
2AAD ⪭ LARGER THAN OR EQUAL TO
~ 2AAD FE00 ⪭ with slanted equal
2AAE ⪮ EQUALS SIGN WITH BUMPY ABOVE
→ 224F ≏ difference between
2AAF ⪯ PRECEDES ABOVE SINGLE-LINE EQUALS SIGN
→ 227C ≼ precedes or equal to
2AB0 ⪰ SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN
→ 227D ≽ succeeds or equal to
2AB1 ⪱ PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO
2AB2 ⪲ SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO
2AB3 ⪳ PRECEDES ABOVE EQUALS SIGN
2AB4 ⪴ SUCCEEDS ABOVE EQUALS SIGN
2AB5 ⪵ PRECEDES ABOVE NOT EQUAL TO
2AB6 ⪶ SUCCEEDS ABOVE NOT EQUAL TO
2AB7 ⪷ PRECEDES ABOVE ALMOST EQUAL TO
2AB8 ⪸ SUCCEEDS ABOVE ALMOST EQUAL TO
2AB9 ⪹ PRECEDES ABOVE NOT ALMOST EQUAL TO
2ABA ⪺ SUCCEEDS ABOVE NOT ALMOST EQUAL TO
2ABB ⪻ DOUBLE PRECEDES
2ABC ⪼ DOUBLE SUCCEEDS

Subset and superset relations

2ABD ⪽ SUBSET WITH DOT
2ABE ⪾ SUPERSET WITH DOT
2ABF ⪿ SUBSET WITH PLUS SIGN BELOW
2AC0 ⫀ SUPERSET WITH PLUS SIGN BELOW
2AC1 ⫁ SUBSET WITH MULTIPLICATION SIGN BELOW
2AC2 ⫂ SUPERSET WITH MULTIPLICATION SIGN BELOW
2AC3 ⫃ SUBSET OF OR EQUAL TO WITH DOT ABOVE
2AC4 ⫄ SUPERSET OF OR EQUAL TO WITH DOT ABOVE
2AC5 ⫅ SUBSET OF ABOVE EQUALS SIGN
2AC6 ⫆ SUPERSET OF ABOVE EQUALS SIGN
2AC7 ⫇ SUBSET OF ABOVE TILDE OPERATOR
2AC8 ⫈ SUPERSET OF ABOVE TILDE OPERATOR
2AC9 ⫉ SUBSET OF ABOVE ALMOST EQUAL TO
2ACA ⫊ SUPERSET OF ABOVE ALMOST EQUAL TO
2ACB ⫋ SUBSET OF ABOVE NOT EQUAL TO
~ 2ACB FE00 ⫋ with stroke through bottom members
2ACC ⫌ SUPERSET OF ABOVE NOT EQUAL TO
~ 2ACC FE00 ⫌ with stroke through bottom members
2ACD ⫍ SQUARE LEFT OPEN BOX OPERATOR
2ACE ⫎ SQUARE RIGHT OPEN BOX OPERATOR
2ACF ⫏ CLOSED SUBSET
→ 2282 ⊂ subset of
2AD0 ⫐ CLOSED SUPERSET
→ 2283 ⊃ superset of
2AD1 ⫑ CLOSED SUBSET OR EQUAL TO
2AD2 ⫒ CLOSED SUPERSET OR EQUAL TO
2AD3 ⫓ SUBSET ABOVE SUPERSET
2AD4 ⫔ SUPERSET ABOVE SUBSET
2AD5 ⫕ SUBSET ABOVE SUBSET
2AD6 ⫖ SUPERSET ABOVE SUPERSET
2AD7 ⫗ SUPERSET BESIDE SUBSET
2AD8 ⫘ SUPERSET BESIDE AND JOINED BY DASH WITH SUBSET

Forks

2AD9 ⫙ ELEMENT OF OPENING DOWNWARDS
→ 2208 ∈ element of
→ 27D2 ⟒ element of opening upwards
2ADA ⫚ PITCHFORK WITH TEE TOP
→ 22D4 ⋔ pitchfork
2ADB ⫛ TRANSVERSAL INTERSECTION
→ 22D4 ⋔ pitchfork
2ADC ⫝ FORKING
= not independent
- an equational logic symbol, not a computing science symbol
- non-independence (original concept) is related to forking

≡ 2ADD ⫝̸ 0338 ∤

2ADD ⫝̸ NONFORKING
= independent
• an equational logic symbol, not a computing science symbol
• independence (original concept) is related to non-forking

Tacks and turnstiles

2ADE ⫞ SHORT LEFT TACK
→ 22A3 ⊣ left tack
2ADF ⫟ SHORT DOWN TACK
→ 22A4 ⊤ down tack
2AE0 ⫠ SHORT UP TACK
→ 22A5 ⊥ up tack
2AE1 ⫡ PERPENDICULAR WITH S
2AE2 ⫢ VERTICAL BAR TRIPLE RIGHT TURNSTILE
= ordinarily satisfies
2AE3 ⫣ DOUBLE VERTICAL BAR LEFT TURNSTILE
→ 22A9 ⊩ forces
2AE4 ⫤ VERTICAL BAR DOUBLE LEFT TURNSTILE
→ 22A8 ⊨ true
2AE5 ⫥ DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE
2AE6 ⫦ LONG DASH FROM LEFT MEMBER OF DOUBLE VERTICAL
→ 22A9 ⊩ forces
2AE7 ⫧ SHORT DOWN TACK WITH OVERBAR
→ 22A4 ⊤ down tack
→ 2351 ⍑ apl functional symbol up tack overbar
→ 3012 〒 postal mark
2AE8 ⫨ SHORT UP TACK WITH UNDERBAR
→ 22A5 ⊥ up tack
→ 234A ⍊ apl functional symbol down tack underbar
2AE9 ⫩ SHORT UP TACK ABOVE SHORT DOWN TACK
2AEA ⫪ DOUBLE DOWN TACK
2AEB ⫫ DOUBLE UP TACK
= independence
• probability theory
2AEC ⫬ DOUBLE STROKE NOT SIGN
→ 00AC ¬ not sign
2AED ⫭ REVERSED DOUBLE STROKE NOT SIGN
→ 2310 ⌐ reversed not sign

Vertical line operators

2AEE ⫮ DOES NOT DIVIDE WITH REVERSED NEGATION SLASH
→ 2224 ∤ does not divide
2AEF ⫯ VERTICAL LINE WITH CIRCLE ABOVE
2AF0 ⫰ VERTICAL LINE WITH CIRCLE BELOW
2AF1 ⫱ DOWN TACK WITH CIRCLE BELOW
= necessarily satisfies
→ 27DF ⟟ up tack with circle above
2AF2 ⫲ PARALLEL WITH HORIZONTAL STROKE
→ 2226 ∦ not parallel to
→ 27CA ⟊ vertical bar with horizontal stroke
2AF3 ⫳ PARALLEL WITH TILDE OPERATOR
2AF4 ⫴ TRIPLE VERTICAL BAR BINARY RELATION
= interleave
→ 2980 ⦀ triple vertical bar delimiter
2AF5 ⫵ TRIPLE VERTICAL BAR WITH HORIZONTAL STROKE
→ 27CA ⟊ vertical bar with horizontal stroke

Miscellaneous mathematical operator

2AF6 ⫶ TRIPLE COLON OPERATOR
• logic
→ 205D ⁝ tricolon
→ 22EE ⋮ vertical ellipsis

Relations

2AF7 ⫷ TRIPLE NESTED LESS-THAN
→ 22D8 ⋘ very much less-than
2AF8 ⫸ TRIPLE NESTED GREATER-THAN
→ 22D9 ⋙ very much greater-than
2AF9 ⫹ DOUBLE-LINE SLANTED LESS-THAN OR EQUAL TO
→ 2266 ≦ less-than over equal to
2AFA ⫺ DOUBLE-LINE SLANTED GREATER-THAN OR EQUAL TO
→ 2267 ≧ greater-than over equal to
2AFB ⫻ TRIPLE SOLIDUS BINARY RELATION
→ 2AF4 ⫴ triple vertical bar binary relation

Operators

2AFC ⫼ LARGE TRIPLE VERTICAL BAR OPERATOR
• often n-ary
→ 2AF4 ⫴ triple vertical bar binary relation
→ 2980 ⦀ triple vertical bar delimiter
2AFD ⫽ DOUBLE SOLIDUS OPERATOR
→ 2225 ∥ parallel to
2AFE ⫾ WHITE VERTICAL BAR
= Dijkstra choice
2AFF ⫿ N-ARY WHITE VERTICAL BAR
= n-ary Dijkstra choice

Standardized Variation Sequences

2A3C ⌙ INTERIOR PRODUCT

2A3C

tall variant with narrow foot

2A3C FE00

2A3D ⌙ RIGHTHAND INTERIOR PRODUCT

2A3D

tall variant with narrow foot

2A3D FE00

2A9D ≾ SIMILAR OR LESS-THAN

2A9D

with similar following the slant of the upper leg

2A9D FE00

2A9E ≿ SIMILAR OR GREATER-THAN

2A9E

with similar following the slant of the upper leg

2A9E FE00

2AAC ⪅ SMALLER THAN OR EQUAL TO

2AAC

with slanted equal

2AAC FE00

2AAD ⪆ LARGER THAN OR EQUAL TO

2AAD

with slanted equal

2AAD FE00

2ACB ⊊ SUBSET OF ABOVE NOT EQUAL TO

2ACB

with stroke through bottom members

2ACB FE00

2ACC ⊋ SUPERSET OF ABOVE NOT EQUAL TO

2ACC

with stroke through bottom members

2ACC FE00

