Miscellaneous Mathematical Symbols-A
Range: 27C0–27EF

This file contains an excerpt from the character code tables and list of character names for
The Unicode Standard, Version 5.0.

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

See http://www.unicode.org/charts/ for access to a complete list of the latest character code charts.
See http://www.unicode.org/charts/PDF/Unicode-5.0/ for charts showing only the characters added in Unicode 5.0.
See http://www.unicode.org/Public/5.0.0/charts/ for a complete archived file of character code charts for Unicode 5.0.

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These charts are provided as the on-line reference to the character contents of the Unicode Standard, Version 5.0 but do
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understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode
Standard, Version 5.0 (ISBN 0-321-48091-0), online at http://www.unicode.org/versions/Unicode5.0.0/, as well as
Unicode Standard Annexes #9, #11, #14, #15, #24, #29, #31, and #34, the other Unicode Technical Reports and
Standards, and the Unicode Character Database, which are available on-line.

See http://www.unicode.org/ucd/ and http://www.unicode.org/reports/

A thorough understanding of the information contained in these additional sources is required for a successful
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	27C	27D	27E
0	↙ 27C0	⟐ 27D0	⟠ 27E0
1	⟁ 27C1	⟑ 27D1	⟡ 27E1
2	⟂ 27C2	⟒ 27D2	⟢ 27E2
3	⟃ 27C3	⟓ 27D3	⟣ 27E3
4	⟄ 27C4	⟔ 27D4	⟤ 27E4
5	⟅ 27C5	⟕ 27D5	⟥ 27E5
6	⟆ 27C6	⟖ 27D6	⟦ 27E6
7	⟇ 27C7	⟗ 27D7	⟧ 27E7
8	⟈ 27C8	⟘ 27D8	⟨ 27E8
9	⟉ 27C9	⟙ 27D9	⟩ 27E9
A	⟊ 27CA	⟚ 27DA	⟪ 27EA
B		⟛ 27DB	⟫ 27EB
C		⟜ 27DC	
D		⟝ 27DD	
E		⟞ 27DE	
F		⟟ 27DF	

Miscellaneous symbols

27C0 ∠ THREE DIMENSIONAL ANGLE
• used by Euclid
27C1 ◮ WHITE TRIANGLE CONTAINING SMALL WHITE TRIANGLE
• used by Euclid
27C2 ⊥ PERPENDICULAR
= orthogonal to
• relation, typeset with additional spacing
→ 22A5 ⊥ up tack
27C3 ⊆ OPEN SUBSET
27C4 ⊇ OPEN SUPERSET
27C5 ⟓ LEFT S-SHAPED BAG DELIMITER
27C6 ⟔ RIGHT S-SHAPED BAG DELIMITER
27C7 ⩒ OR WITH DOT INSIDE
27C8 ⟈ REVERSE SOLIDUS PRECEDING SUBSET
27C9 ⟉ SUPERSET PRECEDING SOLIDUS

Vertical line operator

27CA ⫟ VERTICAL BAR WITH HORIZONTAL STROKE
→ 2AF2 ⫲ parallel with horizontal stroke
→ 2AF5 ⫵ triple vertical bar with horizontal stroke

Miscellaneous symbol

27D0 ◇ WHITE DIAMOND WITH CENTRED DOT

Operators

27D1 ⩑ AND WITH DOT
→ 2227 ∧ logical and
→ 2A40 ⩀ intersection with dot
27D2 ⟒ ELEMENT OF OPENING UPWARDS
→ 2AD9 ⫙ element of opening downwards
27D3 ⟓ LOWER RIGHT CORNER WITH DOT
= pullback
→ 230B ⌋ right floor
27D4 ⟔ UPPER LEFT CORNER WITH DOT
= pushout
→ 2308 ⌈ left ceiling

Database theory operators

27D5 ⟕ LEFT OUTER JOIN
27D6 ⟖ RIGHT OUTER JOIN
27D7 ⟗ FULL OUTER JOIN
→ 2A1D ⋈ join

Tacks and turnstiles

27D8 ⟘ LARGE UP TACK
→ 22A5 ⊥ up tack
27D9 ⟙ LARGE DOWN TACK
→ 22A4 ⊤ down tack
27DA ⟚ LEFT AND RIGHT DOUBLE TURNSTILE
→ 22A8 ⊨ true
→ 2AE4 ⫤ vertical bar double left turnstile
27DB ⟛ LEFT AND RIGHT TACK
→ 22A2 ⊢ right tack
27DC ⟜ LEFT MULTIMAP
→ 22B8 ⊸ multimap
27DD ⟝ LONG RIGHT TACK
→ 22A2 ⊢ right tack
27DE ⟞ LONG LEFT TACK
→ 22A3 ⊣ left tack
27DF ⟟ UP TACK WITH CIRCLE ABOVE
= radial component
→ 2AF1 ⫱ down tack with circle below

Modal logic operators

27E0 ⟠ LOZENGE DIVIDED BY HORIZONTAL RULE
• used as form of possibility in modal logic
→ 25CA ◊ lozenge
27E1 ⟡ WHITE CONCAVE-SIDED DIAMOND
= never (modal operator)
27E2 ⟢ WHITE CONCAVE-SIDED DIAMOND WITH LEFTWARDS TICK
= was never (modal operator)
27E3 ⟣ WHITE CONCAVE-SIDED DIAMOND WITH RIGHTWARDS TICK
= will never be (modal operator)
27E4 ⟤ WHITE SQUARE WITH LEFTWARDS TICK
= was always (modal operator)
→ 25A1 □ white square
27E5 ⟥ WHITE SQUARE WITH RIGHTWARDS TICK
= will always be (modal operator)

Mathematical brackets

27E6 ⟦ MATHEMATICAL LEFT WHITE SQUARE BRACKET
= z notation left bag bracket
→ 301A 〚 left white square bracket
27E7 ⟧ MATHEMATICAL RIGHT WHITE SQUARE BRACKET
= z notation right bag bracket
→ 301B 〛 right white square bracket
27E8 ⟨ MATHEMATICAL LEFT ANGLE BRACKET
= bra
= z notation left sequence bracket
→ 2329 〈 left-pointing angle bracket
→ 3008 〈 left angle bracket
27E9 ⟩ MATHEMATICAL RIGHT ANGLE BRACKET
= ket
= z notation right sequence bracket
→ 232A 〉 right-pointing angle bracket
→ 3009 〉 right angle bracket
27EA ⟪ MATHEMATICAL LEFT DOUBLE ANGLE BRACKET
= z notation left chevron bracket
→ 300A 《 left double angle bracket
27EB ⟫ MATHEMATICAL RIGHT DOUBLE ANGLE BRACKET
= z notation right chevron bracket
→ 300B 》 right double angle bracket