

## Miscellaneous Mathematical Symbols-A

Range: 27C0–27EF

### The Unicode Standard, Version 3.2

This file contains an excerpt from the character code tables and list of character names for *The Unicode Standard, Version 3.2*.

Characters in this chart that are new for The Unicode Standard, Version 3.2 are shown in conjunction with any existing characters. For ease of reference, the new characters have been highlighted in the chart grid and in the names list.

This file will not be updated with errata, or when additional characters are assigned to the Unicode Standard. See <http://www.unicode.org/charts> for access to a complete list of the latest character charts.

### Disclaimer

These charts are provided as the on-line reference to the character contents of the Unicode Standard, Version 3.2 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 excerpt file, please consult the appropriate sections of The Unicode Standard, Version 3.0 (ISBN 0-201-61633-5), as well as Unicode Standard Annexes #28 and #27, the other Unicode Technical Reports and the Unicode Character Database, which are available on-line.

See <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and <http://www.unicode.org/unicode/reports>

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

### Fonts

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See <http://www.unicode.org/unicode/uni2book/u2fonts.html> for a list.

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
















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See <http://www.unicode.org/pending/pending.html> and <http://www.unicode.org/unicode/alloc/Pipeline.html>.

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	27C	27D	27E
0		 27D0	 27E0
1		 27D1	 27E1
2		 27D2	 27E2
3		 27D3	 27E3
4		 27D4	 27E4
5		 27D5	 27E5
6		 27D6	 27E6
7		 27D7	 27E7
8		 27D8	 27E8
9		 27D9	 27E9
A		 27DA	 27EA
B		 27DB	 27EB
C		 27DC	
D		 27DD	
E		 27DE	
F		 27DF	

**Miscellaneous symbol**

27D0  $\diamond$  WHITE DIAMOND WITH CENTRED DOT

**Operators**

27D1  $\wedge$  AND WITH DOT  
 → 2227  $\wedge$  logical and  
 → 2A40  $\cap$  intersection with dot

27D2  $\sqcup$  ELEMENT OF OPENING UPWARDS  
 → 2AD9  $\sqcup$  element of opening downwards

27D3  $\lrcorner$  LOWER RIGHT CORNER WITH DOT  
 = pullback  
 → 230B  $\lrcorner$  right floor

27D4  $\ulcorner$  UPPER LEFT CORNER WITH DOT  
 = pushout  
 → 2308  $\ulcorner$  left ceiling

**Database theory operators**

27D5  $\bowtie$  LEFT OUTER JOIN  
 27D6  $\rightharpoonup$  RIGHT OUTER JOIN  
 27D7  $\bowtie$  FULL OUTER JOIN  
 → 2A1D  $\bowtie$  join

**Tacks and turnstiles**

27D8  $\perp$  LARGE UP TACK  
 → 22A5  $\perp$  up tack

27D9  $\top$  LARGE DOWN TACK  
 → 22A4  $\top$  down tack

27DA  $\vDash$  LEFT AND RIGHT DOUBLE TURNSTILE  
 → 22A8  $\vDash$  true  
 → 2AE4  $\vDash$  vertical bar double left turnstile

27DB  $\dashv$  LEFT AND RIGHT TACK  
 → 22A2  $\dashv$  right tack

27DC  $\multimap$  LEFT MULTIMAP  
 → 22B8  $\multimap$  multimap

27DD  $\dashv$  LONG RIGHT TACK  
 → 22A2  $\dashv$  right tack

27DE  $\dashv$  LONG LEFT TACK  
 → 22A3  $\dashv$  left tack

27DF  $\upharpoonright$  UP TACK WITH CIRCLE ABOVE  
 = radial component  
 → 2AF1  $\upharpoonright$  down tack with circle below

**Modal logic operators**

27E0  $\diamond$  LOZENGE DIVIDED BY HORIZONTAL RULE  
 • used as form of possibility in modal logic  
 → 25CA  $\diamond$  lozenge

27E1  $\diamond$  WHITE CONCAVE-SIDED DIAMOND  
 = never (modal operator)

27E2  $\diamond$  WHITE CONCAVE-SIDED DIAMOND WITH LEFTWARDS TICK  
 = was never (modal operator)

27E3  $\diamond$  WHITE CONCAVE-SIDED DIAMOND WITH RIGHTWARDS TICK  
 = will never be (modal operator)

27E4  $\square$  WHITE SQUARE WITH LEFTWARDS TICK  
 = was always (modal operator)  
 → 25A1  $\square$  white square

27E5  $\square$  WHITE SQUARE WITH RIGHTWARDS TICK  
 = will always be (modal operator)

**Mathematical brackets**

27E6  $[$  MATHEMATICAL LEFT WHITE SQUARE BRACKET  
 → 301A  $[$  left white square bracket

27E7  $]$  MATHEMATICAL RIGHT WHITE SQUARE BRACKET  
 → 301B  $]$  right white square bracket

27E8  $\langle$  MATHEMATICAL LEFT ANGLE BRACKET  
 = bra  
 = z notation left sequence bracket  
 → 2329  $\langle$  left-pointing angle bracket  
 → 3008  $\langle$  left angle bracket

27E9  $\rangle$  MATHEMATICAL RIGHT ANGLE BRACKET  
 = ket  
 = z notation right sequence bracket  
 → 232A  $\rangle$  right-pointing angle bracket  
 → 3009  $\rangle$  right angle bracket

27EA  $\langle\langle$  MATHEMATICAL LEFT DOUBLE ANGLE BRACKET  
 = z notation left chevron bracket  
 → 300A  $\langle\langle$  left double angle bracket

27EB  $\rangle\rangle$  MATHEMATICAL RIGHT DOUBLE ANGLE BRACKET  
 = z notation right chevron bracket  
 → 300B  $\rangle\rangle$  right double angle bracket