

Nomenclature: Functions and Operators

Functions

| Glyph | Glyph Name | Unicode Glyph Name | Code | Monadic Function | Dyadic Function |
|-------|--------------------------|------------------------|------|----------------------------------------------------------|----------------------------|
| + | Plus | Plus Sign | 002B | Conjugate | Plus |
| - | Minus | Hyphen-Minus | 002D | Negate | Minus |
| × | Times | Multiplication Sign | 00D7 | Direction | Times |
| ÷ | Divide | Division Sign | 00F7 | Reciprocal | Divide |
| └ | Downstile | Left Floor | 230A | Floor | Minimum |
| ┌ | Upstile | Left Ceiling | 2308 | Ceiling | Maximum |
| | Stile | Vertical Line | 007C | Magnitude | Residue |
| * | Star | Asterisk | 002A | Exponential | Power |
| ⊛ | Log | *Circle Star | 235F | Natural Logarithm | Logarithm |
| ○ | Circle | White Circle | 25CB | Pi Times | Circular Functions |
| ! | Exclamation Mark | Exclamation Mark | 0021 | Factorial | Binomial |
| ^ | Logical AND | Logical AND | 2227 | | Lowest Common Multiple/AND |
| ∨ | Logical OR | Logical OR | 2228 | | Greatest Common Divisor/OR |
| ⋈ | Logical NAND | *Up Caret Tilde | 2372 | | NAND |
| ⋇ | Logical NOR | *Down Caret Tilde | 2371 | | NOR |
| < | Less Than | Less-Than Sign | 003C | | Less Than |
| ≤ | Less Than Or Equal To | Less-Than Or Equal To | 2264 | | Less Than Or Equal To |
| = | Equal | Equals Sign | 003D | | Equal To |
| ≥ | Greater Than Or Equal To | Great-Than Or Equal To | 2265 | | Greater Than Or Equal To |
| > | Greater Than | Greater-Than Sign | 003E | | Greater Than |
| ≠ | Not Equal | Not Equal To | 2260 | | Not Equal To |
| ~ | Tilde | Tilde | 007E | NOT | Without |
| ? | Question Mark | Question Mark | 003F | Roll | Deal |
| ε | Epsilon | Small Element Of | 220A | Enlist (Type if $\square_{ML}=0$) | Membership |
| ε̄ | Epsilon Underbar | *Epsilon Underbar | 2377 | | Find |
| , | Comma | Comma | 002C | Ravel | Catenate/Laminate |
| ⌣ | Comma Bar | *Comma Bar | 236A | Table | Catenate First/Laminate |
| □ | Squad | *Squish Quad | 2337 | Materialise | Index |
| ι | Iota | *Iota | 2373 | Index Generator | Index Of |
| ῑ | Iota Underbar | *Iota Underbar | 2378 | Where | Interval Index |
| ρ | Rho | *Rho | 2374 | Shape | Reshape |
| ↑ | Up Arrow | Upwards Arrow | 2191 | $\square_{ML} \leq 1$ Mix $\square_{ML} \geq 2$ First | Take |
| ↓ | Down Arrow | Downwards Arrow | 2193 | Split | Drop |
| ↵ | Left Tack | Left Tack | 22A3 | Same | Left |
| ↶ | Right Tack | Right Tack | 22A2 | Same | Right |
| ⌞ | Down Tack | Down Tack | 22A4 | | Encode |
| ⌟ | Up Tack | Up Tack | 22A5 | | Decode |
| / | Slash | Solidus | 002F | | Replicate |

**

| Glyph | Glyph Name | Unicode Glyph Name | Code | Monadic Function | Dyadic Function |
|-------|----------------------|-----------------------|------|------------------------------|--------------------------------------------------|
| / | Slash Bar | *Slash Bar | 233F | | Replicate First |
| \ | Backslash | Reverse Solidus | 005C | | Expand |
| ⋈ | Backslash Bar | *Backslash Bar | 2340 | | Expand First |
| ⊘ | Circle Stile | *Circle Stile | 233D | Reverse | Rotate |
| ⊖ | Circle Bar | Circled Minus | 2296 | Reverse First | Rotate First |
| ⊗ | Circle Backslash | *Circle Backslash | 2349 | Transpose | Dyadic Transpose |
| ⤴ | Grade Up | *Delta Stile | 234B | Grade Up | Dyadic Grade Up |
| ⤵ | Grade Down | *Del Stile | 2352 | Grade Down | Dyadic Grade Down |
| ⊞ | Domino | *Quad Divide | 2339 | Matrix Inverse | Matrix Divide |
| ≡ | Equal Underbar | Identical To | 2261 | Depth | Match |
| ≠ | Equal Underbar Slash | Not Identical To | 2262 | Tally | Not Match |
| ⊂ | Left Shoe | Subset Of | 2282 | Enclose | ⊞ML ≤ 2 Partitioned Enclose ⊞ML = 3 Partition |
| ⊆ | Left Shoe Underbar | Subset Of or Equal To | 2286 | Nest | Partition |
| ⊃ | Right Shoe | Superset Of | 2283 | ⊞ML ≤ 1 First ⊞ML ≥ 2 Mix | Pick |
| ∩ | Up Shoe | Intersection | 2229 | | Intersection |
| ∪ | Down Shoe | Union | 222A | Unique | Union |
| ⊥ | Hydrant | *** *Down Tack Jot | 234E | Execute | Dyadic Execute |
| ⦿ | Thorn | *** *Up Tack Jot | 2355 | Format | Format by Specification |

* The Unicode Glyph Name is preceded by "APL FUNCTIONAL SYMBOL"

**These glyphs are *hybrids*, that is, the argument/operand to the left of the glyph determines whether it acts as a function or an operator

*** The Unicode naming of *Up Tack Jot and *Down Tack Jot is counter to the way the APL community recognises these glyphs

Operators

| Glyph | Glyph Name | Unicode Glyph Name | Code | Operator | Resulting Derived Function |
|-------|-----------------|--------------------|------|---------------------------------|----------------------------|
| / | Slash | Solidus | 002F | Reduce (monadic) | monadic and dyadic |
| / | Slash Bar | *Slash Bar | 233F | Reduce First (monadic) | monadic and dyadic |
| \ | Backslash | Reverse Solidus | 005C | Scan (monadic) | monadic |
| ⋈ | Backslash Bar | *Backslash Bar | 2340 | Scan First (monadic) | monadic |
| ¨ | Diaeresis | Diaeresis | 00A8 | Each (monadic) | monadic and dyadic |
| ¨ | Jot Diaeresis | *Jot Diaeresis | 2364 | Rank (dyadic) | monadic and dyadic |
| ⊞ | Quad Equal | *Quad Equal | 2338 | Key (monadic) | monadic and dyadic |
| ⊞ | Quad Diamond | *Quad Diamond | 233A | Stencil (dyadic) | monadic |
| ¨ | Tilde Diaeresis | *Tilde Diaeresis | 2368 | Commute (monadic) | monadic and dyadic |
| ¨ | Star Diaeresis | *Star Diaeresis | 2363 | Power (dyadic) | monadic and dyadic |
| . | Dot | Full Stop | 002E | Inner or Outer Product (dyadic) | dyadic |
| ◦ | Jot | Ring Operator | 2218 | Compose (dyadic) | monadic and dyadic |
| ⊞ | Quad Colon | *Quad Colon | 2360 | Variant (dyadic) | monadic and dyadic |
| @ | At | At Sign | 0040 | At (dyadic) | monadic and dyadic |
| & | Ampersand | Ampersand | 0026 | Spawn (monadic) | monadic and dyadic |
| ⊞ | I-Beam | *I-Beam | 2336 | I-Beam (monadic) | monadic and dyadic |

* The Unicode Glyph Name is preceded by "APL FUNCTIONAL SYMBOL"

** These glyphs are *hybrids*, that is, the argument/operand to the left of the glyph determines whether it acts as a function or an operator