Idioms

Key to the types and ranks of the arguments in the idioms:

Type	Description
C	Character
B	Boolean
N	Numeric
P	Nested
X	any type

Rank	Description
S	Scalar or single item vector
V	Vector
M	Matrix
A	Array of any rank

The idioms described below must be entered precisely as shown to be recognised.

Idiom	Description
$\rho\rho$XA	The rank of XA (returned as a one-element vector)
$\neq\rho$XA	The rank of XA (returned as a scalar)
BV/ιNS	The subset of NS corresponding to the 1s in BV
BV/$\iota\rho$XV	The positions in XV corresponding to the 1s in BV
NA$\supset^{..}\subset$XV	The subset of XV in the index positions defined by NA (equivalent to XV[NA])
XA$_1${}XA$_2$	XA$_1$ and XA$_2$ are ignored (no result produced)
XA$_1${α}XA$_2$	XA$_1$ (XA$_2$ is ignored)
XA$_1${ω}XA$_2$	XA$_2$ (XA$_1$ is ignored)
XA$_1${α ω}XA$_2$	XA$_1$ and XA$_2$ as a two item vector (XA$_1$ XA$_2$)
{0}XA	0 irrespective of XA
{0}$^{..}$XA	0 corresponding to each item of XA
,/PV	The enclose of the items of PV catenated along their last axes
$\bar{,}$/PV	The enclose of the items of PV catenated along their first axes
$\supset\phi$XA	The item in the top right of XA ($\square$ML < 2)
$\uparrow\phi$XA	The item in the top right of XA ($\square$ML ≥ 2)
$\supset\phi$,XA	The item in the bottom right of XA ($\square$ML < 2)
$\uparrow\phi$,XA	The item in the bottom right of XA ($\square$ML ≥ 2)
0=ρXV	1 if XV has a shape of zero, 0 otherwise
0=$\rho\rho$XA	1 if XA has a rank of zero (scalar), 0 otherwise
0=$\equiv$XA	1 if XA has a depth of zero (simple scalar), 0 otherwise
XM$_1${($\downarrow\alpha$)$\iota\downarrow\omega$}XM$_2$	A simple vector comprising as many items as there are rows in XM$_2$, where each item is the number of the first row in XM$_1$ that matches each row in XM$_2$. **NOTE**: Although still recognised, since Dyalog v14.0 this is idiom is no more efficient than XM$_1$ ι XM$_2$
$\downarrow\lozenge\uparrow$PV	A nested vector comprising vectors that each correspond to a position in the original vectors of PV – the first vector contains the first item from each vector in PV, padded to be the same length as the largest vector, and so on ($\square$ML < 2)
$\downarrow\lozenge\supset$PV	A nested vector comprising vectors that each correspond to a position in the original vectors of PV – the first vector contains the first item from each vector in PV, padded to be the same length as the largest vector, and so on ($\square$ML ≥ 2)
^\' '=CA	A Boolean mask indicating the leading blank spaces in each row of CA
+/^\' '=CA	The number of leading blank spaces in each row of CA
+/^\BA	The number of leading 1s in each row of BA
{($\vee$\' '$\neq\omega$)/ω}CV	CV without any leading blank spaces

Idiom	Description
`{(+/^\' '=ω)↓ω}CV`	`CV` without any leading blank spaces
`~∘' '¨↓CA`	A nested vector comprising simple character vectors constructed from the rows of `CA` (which must be of depth 1) with all blank spaces removed
`{(+/∨\' '≠⌽ω)↑¨↓ω}CA`	A nested vector comprising simple character vectors constructed from the rows of `CA` (which must be of depth 1) with trailing blank spaces removed
`⊃∘ρ¨XA`	The length of the first axis of each item in `XA` (`⎕ML<2`)
`↑∘ρ¨XA`	The length of the first axis of each item in `XA` (`⎕ML≥2`)
`XA₁,←XA₂`	`XA₁` redefined to be `XA₁` with `XA₂` catenated along its last axis
`XA₁⍪←XA₂`	`XA₁` redefined to be `XA₁` with `XA₂` catenated along its first axis
`{(⊂⍋ω)⌷ω}XA`	`XA` with the major cells sorted into numerical/alphabetical order
`{(⊂⍒ω)⌷ω}XA`	`XA` with the major cells sorted into reverse numerical/alphabetical order
`{ω[⍋ω]}XV`	`XV` sorted into numerical/alphabetical order
`{ω[⍒ω]}XV`	`XV` sorted into reverse numerical/alphabetical order
`{ω[⍋ω;]}XM`	`XM` with the rows sorted into numerical/alphabetical order
`{ω[⍒ω;]}XM`	`XM` with the rows sorted into reverse numerical/alphabetical order
`1=≡XA`	1 if `XA` has a depth of 1 (simple array), 0 otherwise
`1=≡,XA`	1 if `XA` has a depth of 0 or 1 (simple scalar, vector, etc.), 0 otherwise
`0∊ρXA`	1 if `XA` is empty, 0 otherwise
`~0∊ρXA`	1 if `XA` is not empty, 0 otherwise
`⊣⌿XA`	The first sub-array along the first axis of `XA`
`⊣/XA`	The first sub-array along the last axis of `XA`
`⊢⌿XA`	The last sub-array along the first axis of `XA`
`⊢/XA`	The last sub-array along the last axis of `XA`
`*∘NA`	Euler's idiom (accurate when `NA` is a multiple of `0J0.5`)
`0=⊃ρXA`	1 if `XA` has an empty first dimension, 0 otherwise (`⎕ML<2`)
`0≠⊃ρXA`	1 if `XA` does not have an empty first dimension, 0 otherwise (`⎕ML<2`)
`⌊0.5+NA`	The content of `NA` with each item rounded to the nearest integer
`XA↓⍨←NS`	`XA` redefined to be `XA` with the last `-NS` items along the leading axis removed; `NS` should be negative
`⎕AV⍳CA`	*Classic edition only*: The character numbers (atomic vector index) corresponding to the characters in `CA`