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
⍴⍴XA	The rank of XA
BV/⍳NS	The subset of NS corresponding to the 1s in BV
BV/⍳⍴XV	The positions in XV corresponding to the 1s in BV
NA⊃¨⊂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{⍺}XA_2	XA_1 (XA_2 is ignored)
XA_1{⍵}XA_2	XA_2 (XA_1 is ignored)
XA_1{⍺ ⍵}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
⍪/PV	The enclose of the items of PV catenated along their first axes
⊃⌽XA	The item in the top right of XA (⎕ML<2)
↑⌽XA	The item in the top right of XA (⎕ML≥2)
⊃⌽,XA	The item in the bottom right of XA (⎕ML<2)
↑⌽,XA	The item in the bottom right of XA (⎕ML≥2)
0=⍴XV	1 if XV has a shape of zero, 0 otherwise
0=⍴⍴XA	1 if XA has a rank of zero (scalar), 0 otherwise
0=≡XA	1 if XA has a depth of zero (simple scalar), 0 otherwise
XM_1{(↓⍺)⍳↓⍵}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.
↓⍉↑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 (⎕ML<2)
↓⍉⊃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 (⎕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
{(∨\' '≠⍵)/⍵}CV	CV without any leading blank spaces
{(+/^\' '=⍵)↓⍵}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

Idiom	Description
	removed
`{(+/∨\' '≠⍵)↑¨↓⍵}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
`⊃⍴¨XA`	The length of the first axis of each item in `XA` (`⎕ML<2`)
`↑⍴¨XA`	The length of the first axis of each item in `XA` (`⎕ML≥2`)
XA_1`,[⍳`XA_2`]`	XA_1 redefined to be XA_1 with XA_2 catenated along its last axis
XA_1`[⍳`XA_2`;]`	XA_1 redefined to be XA_1 with XA_2 catenated along its first axis
`{⍵[⍋⍵]}XV`	`XV` sorted into numerical or alphabetical order
`{⍵[⍒⍵]}XV`	`XV` sorted into reverse numerical or alphabetical order
`{⍵[⍋⍵;]}XM`	`XM` with the rows sorted into numerical or alphabetical order
`{⍵[⍒⍵;]}XM`	`XM` with the rows sorted into reverse numerical or 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∊⍴XA`	1 if `XA` is empty, 0 otherwise
`~0∊⍴XA`	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=⊃⍴XA`	1 if `XA` has an empty first dimension, 0 otherwise (`⎕ML<2`)
`0≠⊃⍴XA`	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
`⎕AV⍳CA`	Classic version only: The character numbers (atomic vector index) corresponding to the characters in `CA`