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
ρρXA	The rank of XA (returned as a one-element vector)
≢ρXA	The rank of XA (returned as a scalar)
BV/⍳NS	The subset of NS corresponding to the 1s in BV
BV/⍳ρXV	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=ρXV	1 if XV has a shape of zero, 0 otherwise
0=ρρXA	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$_2$. **NOTE**: Although still recognised, since Dyalog v14.0 this is idiom is no more efficient than XM$_1$⍳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

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
⊃∘⍴¨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
{(⊂⍋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∊⍴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
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