

Rank m^n

The verb m^n produces the constant result m for each cell to which it applies. The rank used is $3 \text{ \$\&}. | . n$. For example, if $n=:2$, the three ranks are $2 \ 2 \ 2$, and if $n=: 2 \ 3$, they are $3 \ 2 \ 3$. A negative rank is complementary: $m^{(-r)} y$ is equivalent to $m^{(0>.(#\$y)-r)} y$.

Thus:

```

v=: 2 3 5 7
m=: i. 2 3
m ; (m"0 v) ; (m"1 v) ; (m"1 m)
+-----+
| 0 1 2 | 0 1 2 | 0 1 2 | 0 1 2 |
| 3 4 5 | 3 4 5 | 3 4 5 | 3 4 5 |
|       |       |       |       |
|       | 0 1 2 |       | 0 1 2 |
|       | 3 4 5 |       | 3 4 5 |
|       |       |       |       |
|       | 0 1 2 |       |       |
|       | 3 4 5 |       |       |
+-----+
v m" 1 2 m
0 1 2
3 4 5

```

The verbs $_9:$ through $9:$ are constant verbs, equivalent to $_9"$ through $9"$. For example:

```

odds=: 1: + 2: * i.
odds 5
1 3 5 7 9

```

Rank u"n

The verb `u"n` applies `u` to each cell as specified by the rank `n`. The full form of the rank used is `3 $&. | . n`. For example, if `n=:2`, the three ranks are `2 2 2`, and if `n=: 2 3`, they are `3 2 3`. A negative rank is complementary: `u"(-r) y` is equivalent to `u"(0>.(#$y)-r) y`.

```
( ] ; , ; ,"2) y=: a. {~ (a.i.'A') + i. 2 3 4
```

ABCD	ABCDEFGHIJKLMN	OPQRSTU	VWXYZ
EFGH		IJKLMN	OPQRSTU
IJKL			VWXYZ
MNOP			
QRST			
UVWX			

```
(<"0 ; <"1 ; <"2 ; <"3 ,&< <"_1) y Boxing of ranks 0, 1, 2, 3, _1
```

A B C D	ABCD EFGH IJKL	ABCD MNOP	ABCD MNOP	ABCD MNOP
E F G H	MNOP QRST UVWX	EFGH QRST	EFGH QRST	EFGH QRST
I J K L		IJKL UVWX	IJKL	IJKL UVWX
M N O P			MNOP	
Q R S T			QRST	
U V W X			UVWX	

```
(*# ' , "0 1 ' abcde' ) ; (+/"2 i. 2 3 4) ; (+/"_1 i. 2 3 4)
```

* abcde	12 15 18 21	12 15 18 21
# abcde	48 51 54 57	48 51 54 57

Assign Rank `m"v` `u"v` `mv` `lv` `rv`

The verbs `m"v` and `u"v` are equivalent to `m"r` and `u"r`, where `r` is the list of ranks of `v`. The results may be examined by using the basic characteristics adverb `b.` to obtain ranks.

For example:

```

, b. 0
- - -

%. b. 0
2 _ 2

ravel=: , " %.

ravel b. 0
2 _ 2

]y=: a. {~ (a. i. 'A') + i. 2 3 4
ABCD
EFGH
IJKL

MNOP
QRST
UVWX

,y
ABCDEFGHIJKLMNOPQRSTUVWXYZ

ravel y
ABCDEFGHIJKL
MNOPQRSTUVWX
```