

Catalogue

{ 1 0 \_

From

<p>{y forms a catalogue from the atoms of its argument, its shape being the chain of the shapes of the opened items of y. The common shape of the boxed results is \$y. For example:</p> <pre>       { 'ht'; 'ao'; 'gtw' +---+---+---+  hag hat haw  +---+---+---+  hog hot how  +---+---+---+ +---+---+---+  tag tat taw  +---+---+---+  tog tot tow  +---+---+---+ </pre> <p>The Cartesian product is readily defined in terms of {, thus:</p> <pre>       CP=: {@(&amp;,&lt;)       0 1 CP 2 3 4 +---+---+---+  0 2 0 3 0 4  +---+---+---+  1 2 1 3 1 4  +---+---+---+ </pre>	<p>If x is an integer in the range from -n=: #y to n-1, then x{y selects item n x from y. Thus:</p> <pre>       2 0 _1 _3 { 'abcdefg' cage        t=:3 4\$'abcdefghijkl'       1{t efgh </pre> <p>More generally, &gt;x may be a list whose successive elements are (possibly) boxed arrays that specify selection along successive axes of y.</p> <p>Finally, if any r=:&gt;j{&gt;x used in the selection is itself boxed, selection is made by the indices along that axis that do not occur in &gt;r.</p> <p>Note that the result in the very last dyadic example, that is, (&lt;&lt;&lt;_1){m, is all except the last item.</p>
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```

      t; (1{t); (2 1{t); (1{"1 t); ((,1){"1 t); (2 1{"1 t)
+---+---+---+---+---+
|abcd|efgh|ijkl|bfj|b|cb|
|efgh|      |efgh|    |f|gf|
|ijkl|      |      |    |j|kj|
+---+---+---+---+---+

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```
t; (2 0{t}); ((<2 0){t}); ((2 0;1 3){t}); ((<2 0;1 3){t})
```

```
+-----+-----+-----+-----+
|abcd|ijkl|i|ih|jl|
|efgh|abcd| | |bd|
|ijkl| | | | |
+-----+-----+-----+-----+
```

```
(_1{m}); (_1{"2 m}); (_1{"1 m}); (<<<_1){m=:i.2 3 4
```

```
+-----+-----+-----+-----+
|12 13 14 15| 8 9 10 11| 3 7 11|0 1 2 3| | |
|16 17 18 19|20 21 22 23|15 19 23|4 5 6 7|
|20 21 22 23| | | | |8 9 10 11|
+-----+-----+-----+-----+
```