

Transpose | : _ 1 _ Transpose

<p> : reverses the order of the axes of its argument. For example:</p> <pre>(: :) i. 3 4</pre> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>0</td><td>1</td><td>2</td><td>3</td><td>0</td><td>4</td><td>8</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>2</td><td>6</td><td>10</td></tr> <tr><td></td><td></td><td></td><td></td><td>3</td><td>7</td><td>11</td></tr> </table>	0	1	2	3	0	4	8	4	5	6	7	1	5	9	8	9	10	11	2	6	10					3	7	11	<p>x : y moves axes x to the tail end. If x is boxed, the axes in each box are run together to produce a single axis:</p> <pre>y=: 3 4\$'abcdefghijkl'</pre> <pre>y :(1 0 : y) :(0 : y) :(<0 1) : y)</pre> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>abcd</td><td>aei</td><td>aei</td><td>afk</td></tr> <tr><td>efgh</td><td>bfj</td><td>bfj</td><td></td></tr> <tr><td>ijkl</td><td>cgk</td><td>cgk</td><td></td></tr> <tr><td></td><td>dhl</td><td>dhl</td><td></td></tr> </table>	abcd	aei	aei	afk	efgh	bfj	bfj		ijkl	cgk	cgk			dhl	dhl	
0	1	2	3	0	4	8																																							
4	5	6	7	1	5	9																																							
8	9	10	11	2	6	10																																							
				3	7	11																																							
abcd	aei	aei	afk																																										
efgh	bfj	bfj																																											
ijkl	cgk	cgk																																											
	dhl	dhl																																											

For example:

```
y=: a.{~(a. i. 'a') + i. 2 3 4
z=: y|:(2 1 | : y)|:(<2 1) | : y)|:(| : i. 4 5)
z ,&< | :&. > z
```

abcd	aei	afk	0	5	10	15	am	am	am	0	1	2	3	4
efgh	bfj	mrw	1	6	11	16	eq	bn	fr	5	6	7	8	9
ijkl	cgk		2	7	12	17	iu	co	kw	10	11	12	13	14
	dhl		3	8	13	18		dp		15	16	17	18	19
mnop			4	9	14	19	bn							
qrst	mqu						fr	eq						
uvwx	nrw						jv	fr						
	osw						co	gs						
	ptx						gs	ht						
							kw	iu						
								jv						
							dp	kw						
							ht	lx						
							lx							