

---

**expand**

---

syntax: `expand(multiplicities)`

purpose: Takes a 2-column matrix, interpreting the first column as integer multiplicies and the second value as the corresponding values. A single row vector is returned, which has each of the values repeated according to it's corresponding multiplicities.

Either the original multiplicies matrix or the expanded version can be used in `SAMPLE` or `SHUFFLE`. However, using the expanded version can save computation, especially if the sampling or shuffling is being repeated many times. (The expanded version can also be used in `RESAMP`, which is not true for the original multiplicities matrix.)

example: We'll construct a matrix that represents one 1.1, two copies of 2.2, and three copies of 3.3:

```
multiplicities = [1 1.1;
                  2 2.2;
                  3 3.3]

>> expand(multiplicities)
ans:    1.1 2.2 2.2 3.3 3.3 3.3
```

See also: `SAMPLE`, `SHUFFLE`, `RESAMP`

<p>This document is an excerpt from <i>Resampling Stats in MATLAB</i> Daniel T. Kaplan Copyright (c) 1999 by Daniel T. Kaplan, All Rights Reserved This document differs from the published book in pagination and in the omission (unintentional, but unavoidable for technical reasons) of figures and cross-references from the book. It is provided as a courtesy to those who wish to examine the book, but not intended as a replacement for the published book, which is available from Resampling Stats, Inc. <a href="http://www.resample.com">www.resample.com</a> 703-522-2713</p>
---