**corr() — Make correlation matrix from variance matrix**

### Description

`corr(V)` returns the correlation matrix corresponding to variance matrix `V`.  
`_corr(V)` changes the contents of `V` from being a variance matrix to being a correlation matrix.

### Syntax

```plaintext
real matrix corr(real matrix V)

void _corr(real matrix V)
```

### Remarks and examples

See function `variance()` in [M-5] `mean()` for obtaining a variance matrix from data.

### Conformability

`corr(V)`:
- **input**: 
  - `V`: \( k \times k \)
- **result**: 
  - `k \times k`

`_corr(V)`:
- **input**: 
  - `V`: \( k \times k \)
- **output**: 
  - `V`: \( k \times k \)

### Diagnostics

`corr()` and `_corr()` abort with error if `V` is not square. `V` should also be symmetric, but this is not checked.

### Also see

- [M-5] `mean()` — Means, variances, and correlations
- [M-4] `Statistical` — Statistical functions