

### [3.28] Fill a list or matrix with a constant

The built-in *Fill* command will fill a list or matrix with a constant expression, but it is not a function and cannot be used in TI Basic functions, nor return the result to the entry line. *fill\_lm()* shown below is a true function replacement for *Fill*, and also shows a method to use a single function to return either a list or matrix.

```
fill_lm(e,d)
Func
@(expr,{dim}) or (expr,[row,col])
©Fill matrix or list
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local τ
gettype (d)→τ

© (This expression is all one line)
when(τ="LIST",seq(e,k,1,d[1]),when(τ="MAT",list•mat(seq(e,k,1,d[1,1]*d[1,2]),d[1,2]),"fill_lm err"))

EndFunc
```

*fill\_lm()* returns a filled list or matrix, as determined by the type of argument *d*. If *d* is a list, a list is returned, and if *d* is a matrix, a matrix is returned. The contents of *d* specify the list or matrix dimensions. For example,

```
fill_lm(a,{3})      returns      {a,a,a}

fill_lm(a,[2,3])   returns      [ a a a ]
                    [ a a a ]
```

If *d* is neither a list or a matrix, the error string "*fill\_lm err*" is returned.