

### [7.15] Avoid *For ... EndFor* loops

Loops are very slow on the 89/92+. The 89/92+ provide some functions which can be used to accomplish some operations that are traditionally done with loops:

- use *PolyEval()* to evaluate polynomials
- use *seq()* to generate a list of function values
- use *sum()* to add the elements of a list
- use sigma ( $\Sigma$ ) to sum the values of an expression
- use upper-case pi ( $\Pi$ ) to find the product of expression terms
- the common arithmetic operators (+, -, \*, /, etc) operate on lists & matrices
- the 'dot operators' (., .\*, ./, .^ ) operate on matrices and expressions
- the *submat()* function extracts part of a matrix