"Subscripted" variables

Take extreme care when using subscripted variables. There is a big difference between a scalar variable that has a subscript in the variable name, and a variable name that defines an array element.

Scaler Variable with a subscript:

\[ x_1 := 2 \]

Typed as \( x.1:2 \), when editing, will appear as \( x_1 := 2 \)  Note the . (dot)

Evaluates as: \[ x_1 = 2 \]

Array Variable with subscripted address:

\[ x_1 := 3 \]

Typed as \( x[1:3] \), when editing, will appear as \( x_1 := 3 \)  Note there is no . (dot)

Evaluates (x) as: \[ x = \begin{pmatrix} 0 \\ 3 \end{pmatrix} \]

\[ x_1 = 3 \]

Hints: To load a simple matrix, use Ctrl-M or select Matrix from the Matrix toolbar

Example: 3 x 3

\[
\begin{pmatrix}
1 & 2 & 3 \\
4 & 5 & 6 \\
7 & 8 & 9 \\
\end{pmatrix}
\]

To expand (increase to a 4 x 4), select the value in the lower right corner (9) in the Matrix just created, then pick on the Matrix in the Matrix tool bar. Select 1 for the number of rows, and 1 for the number of columns.

\[
\begin{pmatrix}
1 & 2 & 3 \\
4 & 5 & 6 \\
7 & 8 & 9 \\
\end{pmatrix}
\]