

# Tricks

1. Use `==` to test for equality. In effect, `A==B` is equivalent to `simplify(A-B)==0`.
2. In a script, line breaking is allowed where the scanner needs something to complete an expression. For example, the scanner will automatically go to the next line after an operator.
3. Setting `trace=1` in a script causes each line to be printed just before it is evaluated. Useful for debugging.
4. The last result is stored in symbol `last`.
5. Use `contract(A)` to get the mathematical trace of matrix  $A$ .
6. Use `binding(s)` to get the unevaluated binding of symbol  $s$ .
7. Use `s=quote(s)` to clear symbol  $s$ .
8. Use `float(pi)` to get the floating point value of  $\pi$ . Set `pi=float(pi)` to evaluate expressions with a numerical value for  $\pi$ . Set `pi=quote(pi)` to make  $\pi$  symbolic again.
9. Assign strings to unit names so they are printed normally. For example, setting `meter="meter"` causes the symbol `meter` to be printed as meter instead of  $m_{eter}$ .
10. Use `expsin` and `expcos` instead of `sin` and `cos`. Trigonometric simplifications occur automatically when exponentials are used.