TI-84 CAS Cheat Sheet

--- BASIC SYMBOLIC COMMANDS ---
factor(expr)   → Factors algebraic expressions
expand(expr)   → Expands expressions
simplify(expr)   → Simplifies algebraic expressions
solve(eq, var)   → Solves an equation symbolically for a variable
solve({eq1, eq2}, {x, y}) → Solves systems of equations

--- CALCULUS COMMANDS ---
d(expr, var)   → Derivative of expression w.r.t variable
integrate(expr, var) → Integral of expression w.r.t variable
limit(expr, var, val) → Limit as variable approaches value
series(expr, var, val, n) → Taylor/Maclaurin expansion to order n

--- GRAPHING COMMANDS ---
Plot y = f(x)   → Graph function
Parametric Mode   → Plot x(t), y(t)
Polar Mode   → Plot r = f(θ)
Trace Mode   → Move along curve and see coordinates

--- MATRIX & LISTS ---
[[a,b], [c,d]]   → Matrix definition
det(A)   → Determinant of matrix A
inv(A)   → Inverse of matrix A
A*B   → Matrix multiplication
{1,2,3,4}   → List creation

--- PROGRAMMING BASICS ---
:Prompt A,B
:Disp "Sum=", A+B
:Pause   → Pause execution
:If condition
:Then ... :End   → Conditional blocks
:For(X,1,10,1) ... :End → Loops

--- MISCELLANEOUS ---
Ans   → Last computed result
Store → (→)   → Store value into variable
clear   → Clears screen/memory
Mode Settings   → Switch Radian/Degree, Graph Type, etc.
2nd + Mem   → Memory management & archiving

--- CAS TIPS ---
• Use parentheses carefully
• Archive large programs before symbolic work
• Always test symbolic results numerically
• Use CAS for verification, not dependency
• Save often & backup before firmware updates