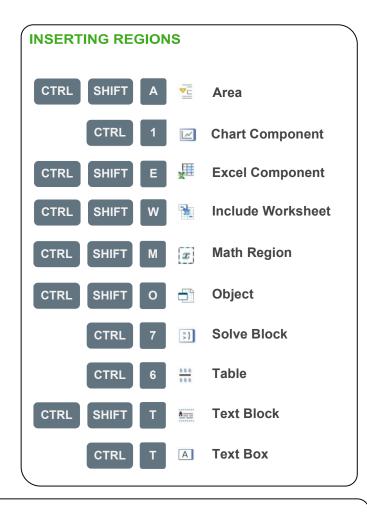
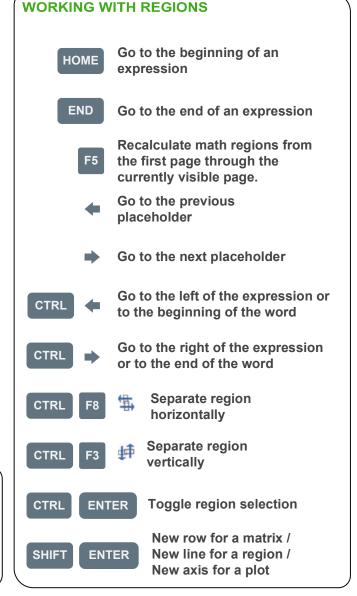




MATH AND TEXT Greek Letter LETTER CTRL 1i or 1j **Imaginary Unit Insert String** Subscript **Superscript Bold** Italic Underline Q **Toggle Labels**





INSERTING PLOTS

CTRL 2

CTRL

💺 3D Plot

XY Plot

CTRL

CTRL

4





2



Contour Plot





ALGEBRA OPERATORS

Absolut value, or determinant

Addition

Division

Exponential

Factorial

CTRL In-line division

Parentheses

Multiplication and dot product

Negation and Subtraction

Separate Arguments

Square root and nth root

Percent

EQUATION BREAK OPERATORS

Equation SHIFT **CTRL** break addition

Equation break CTRL SHIFT subtraction

Equation break CTRL SHIFT multiplication

Equation break **CTRL** SHIFT inline division

> Switch between regular and SHIFT **ENTER** equation break operators

ENGINEERING OPERATORS

Complex SHIFT CTRL Conjugate

> **ALT Degree** 0176

Scaling **CTRL** SHIFT

Polar CTRL **SHIFT**

CALCULUS OPERATORS

Circular SHIFT CTRL Convolution

Gradient **CTRL SHIFT** Operator

SHIFT Derivative CTRL

Partial CTRL Derivative

Integral **CTRL** SHIFT

Linear **CTRL SHIFT** Convolution

> **CTRL Prime**

Product CTRL SHIFT

Summation CTRL SHIFT

SYMBOLIC OPERATORS

CTRL



Symbolic Evaluation



CTRL

Limit

DEFINITION AND EVALUATION OPERATORS

:= Definition

Evaluation

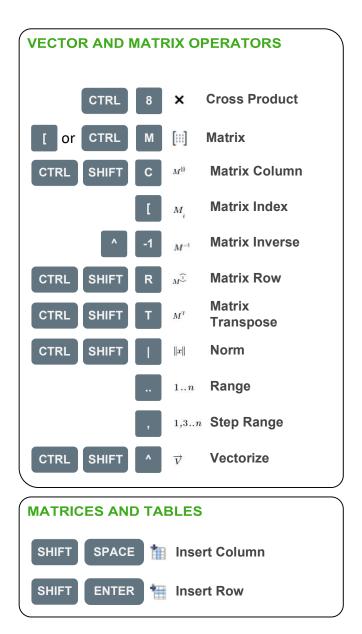
Global SHIFT **CTRL** Definition

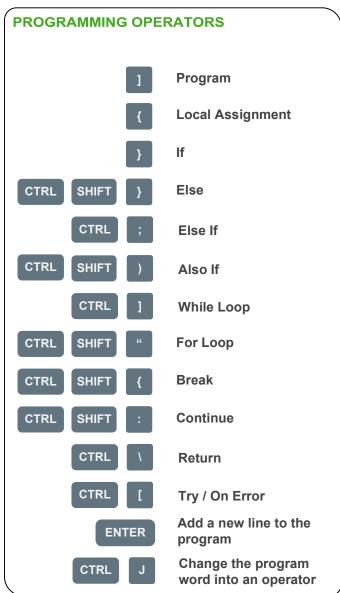




COMPARISON OPERATORS		
CTRL =	=	Equal To
>	>	Greater than
> = or	≥	Greater than or equal to
CTRL 0		
<	<	Less than
< = or	≤	Less than or equal to
CTRL 9		
< > >	≠	Inequality
CTRL F7	\in	Is Element of
CTRL SHIFT %	\oplus	Logical Exclusive OR
CTRL SHIFT &	Λ	Logical AND
CTRL SHIFT !	¬	Logical NOT

V Logical OR

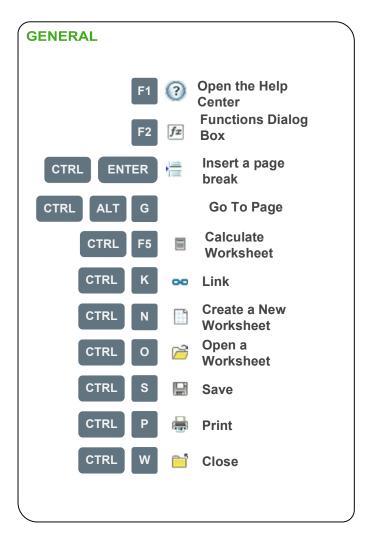


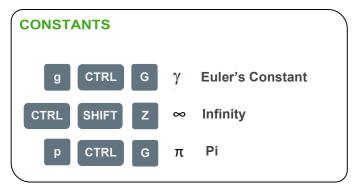






KEYBOARD SHORTCUTS





Copyright © 2025 PTC Inc. and/or Its Subsidiary Companies. All Rights Reserved.

Copyright for PTC software products is with PTC Inc. and its subsidiary companies (collectively "PTC"), and their respective licensors. This software is provided under written license or other agreement, contains valuable trade secrets and proprietary information, and is protected by the copyright laws of the United States and other countries. It may not be copied or distributed in any form or medium, disclosed to third parties, or used in any manner not provided for in the applicable agreement except with written prior approval from PTC. More information regarding third party copyrights and trademarks and a list of PTC's registered copyrights, trademarks, and patents can be viewed here: https://www.ptc.com/support/go/copyright-and-trademarks

User and training guides and related documentation from PTC are also subject to the copyright laws of the United States and other countries and are provided under a license agreement that restricts copying, disclosure, and use of such documentation. PTC hereby grants to the licensed software user the right to make copies of product documentation and guides in printed form, but only for internal/personal use and in accordance with the license agreement under which the applicable software is licensed. Any copy made shall include the PTC copyright notice and any other proprietary notice provided by PTC. Note that training materials may not be copied without the express written consent of PTC. This documentation may not be disclosed, transferred, modified, or reduced to any form, including electronic media, or transmitted or made publicly available by any means without the prior written consent of PTC and no authorization is granted to make copies for such purposes.

UNITED STATES GOVERNMENT RIGHTS

PTC software products and software documentation are "commercial items" as that term is defined at 48 C.F.R. 2.101. Pursuant to Federal Acquisition Regulation (FAR) 12.212 (a)-(b) (Computer Software) (MAY 2014) for civilian agencies or the Defense Federal Acquisition Regulation Supplement (DFARS) at 227.7202-1(a) (Policy) and 227.7202-3 (a) (Rights in commercial computer software or commercial computer software documentation) (FEB 2014) for the Department of Defense, PTC software products and software documentation are provided to the U.S. Government under the PTC commercial license agreement. Use, duplication or disclosure by the U.S. Government is subject solely to the terms and conditions set forth in the applicable PTC software license agreement.

PTC Inc., 121 Seaport Blvd, Boston, MA 02210 USA