



## Keyboard shortcuts - Windows

You can see many of the shortcuts for Graphing Calculator next to the menu commands. Here are a some additional shortcuts.

### Shortcuts for math

Action	Shortcut
Square the selected terms or the symbol to the left of the insertion point	@ (Shift + 2 on some keyboards)
Cube the selected terms or the symbol to the left of the insertion point	# (Shift + 3 on some keyboards)
Negate the selected terms	Control + - (minus)
Delete all	Control + Delete
<b>Moving terms (see <a href="#">Drag Algebra</a>)</b>	
Move the selected items to the left (the same as dragging to the left)	Control + Shift + Left Arrow key
Move the selected items to the right (the same as dragging to the right)	Control + Shift + Right Arrow key
Move the selected items to the left using the commutative law if possible	Control + Left Arrow key
Move the selected items to the right using the commutative law if possible	Control + Right Arrow key
<b>Selection</b>	
Move the insertion point left	Left Arrow key
Move the insertion point right	Right Arrow key
Select the operation containing the current selection	Up Arrow key
Select the first term of the current selection	Down Arrow key
Move the insertion point from the currently selected equation to the one above it	Control + Up Arrow key
Move the insertion point from the currently selected equation to the one below it	Control + Down Arrow key
Move to the next item in an equation or to the next "?" (unset parameter) if there is one	Tab
Move to the previous item in an equation	Shift + Tab

### Inserting special characters and operators

Less than or equal to ( $\leq$ )	Control + <
Greater than or equal to ( $\geq$ )	Control + >
Interval	Control + [
Comma	, ; (semicolon)
Parentheses	[ (
Equal	=
Not equal to ( $\neq$ )	Control + Shift + N
Element of ( $\in$ )	Control + Shift + E
A square root	Control + Shift + R
An exponent	^
A Bessel function	Control + J
A binomial coefficient	Control + Shift + K
A function $f(x)$	Control + 9
A cross product	Control + Shift + X
A dot product	Control + period
2-vector	Control + 2
3-vector	Control + 3
4-vector	Control + 4
2x2 matrix	Control + Shift + 2
3x3 matrix	Control + Shift + 3
4x4 matrix	Control + Shift + 4
Matrix tranpose	Control + Shift + G
Prime	' (single quote)
Divergence ( $\nabla \cdot$ )	type div
Gradient ( $\nabla$ )	type grad
Curl ( $\nabla \times$ )	type curl
Laplacian ( $\nabla^2$ )	type lap
Floor ( $\lfloor \rfloor$ )	type floor
Ceiling ( $\lceil \rceil$ )	type ceil
Pi ( $\pi$ )	type pi
Theta ( $\theta$ )	type theta
Phi ( $\Phi$ )	type phi
Degree ( $^\circ$ )	Control + G
Infinity ( $\infty$ )	type inf
If	Control + Shift + F
A branch for a piecewise-defined function or a	Control + Shift + A

Divide	/
Subtract	-
Factorial	!
Ellipsis (...)	Control + ; (semicolon)
Complex Conjugate ( $\bar{\phantom{x}}$ )	_ (underscore)
Extended Product ( $\prod$ )	Control + Shift + P
Vector hat ( $\hat{\phantom{x}}$ )	Control + 6

## Shortcuts for graphs

Action	Shortcut
Zoom only the x-axis of a 2D graph	Control + click the zoom button
Zoom only the y-axis of a 2D graph	Shift + click the zoom button
Track on a curve	Control + drag in a 2D graph
Spin the axes	Drag anywhere in a 3D graph
Constrain the spin around a coordinate axis	Shift + drag anywhere in a 3D graph
Animate only in the forward direction, rather than back and forth	Control + click the play button
Simple plotting	Control + Shift + 6
Honest plotting	Control + Shift + 7
Best 2D plotting (the default)	Control + Shift + 8

## Dragging in the graph pane

Key	Effect in 2D Graphs	Effect in 3D Graphs
Shift	Zooms the graph by selecting a rectangle	Constrains spin around a coordinate axis
Control	Marks and tracks the first curve without having to click it	Makes the graph appear larger or smaller