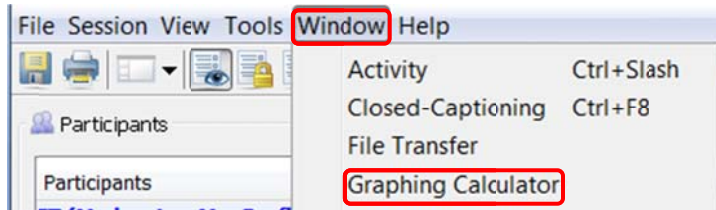


Graphing Calculator

To display the calculator, click Window on the menu bar, then select Graphing Calculator. The calculator is displayed in front of the other windows. Resize or re-position the Graphing Calculator window anywhere on your application.

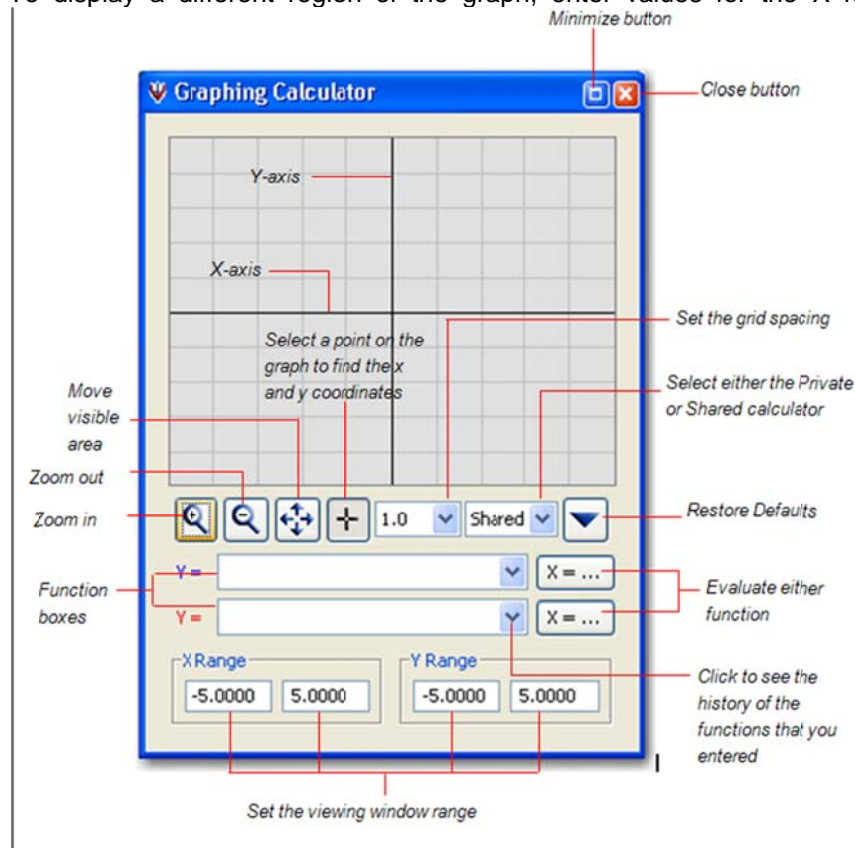


You can enter only explicit functions in the graphing calculator. The calculator allows you to plot two functions on the same grid. If your function contains a variable, it must be represented by an x.

Type your function in the function box and press Enter to graph it. Optionally, you can enter a second function in the second function box. Your first function is graphed in blue, the second in red.

The display region of the graph is defined by the X range and Y range values. The Grid Spacing draws visible lines that correspond to tick points on the x- and y-axis. By default, the display region is set at -5 to 5 for the X range, -5 to 5 for the Y range and the Grid Spacing is set to 1.

To display a different region of the graph, enter values for the X range and Y range and set the Grid Spacing.



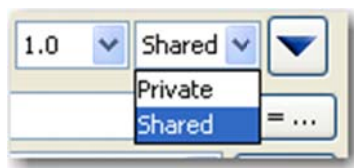
Assigning Privileges

The calculator icon appears in the Participants window. Assign calculator privileges to those participants who will be using the shared calculator.

Private and Shared Calculators

The **graphing calculator feature supplies everyone with two calculators**: a *private* and a *shared* calculator. You can open and use the *private* calculator. It is visible only to you and you do not need privileges in order to use the *private* calculator. The *shared* allows users to work in a collaborative environment and interact on the calculator together. Both graphing calculators function identically.

To switch between the Private and Shared calculator, select Shared or Private from the drop down menu in the Graphing Calculator window.



Use the Shared Calculator

The calculator can be used in one of two ways: with or without the Follow Moderator option selected. Go to the Tools menu and from Graphing Calculator you can select Follow Moderator.

Use the shared calculator without the Follow Moderator option selected:

- You and your participants can work on the shared calculator as needed.
- Participants can switch to their private calculator or close their Graphing Calculator window at any time.
- You can change the display region at any time.
- Participants can make changes on the graphing calculator only when they have calculator privileges. If participants do not have calculator privileges, their calculator buttons and menus are grayed out.

Use the shared calculator with the Follow Moderator option selected:

From the Tools menu, select Graphing Calculator and then select Follow Moderator. When the Graphing Calculator window is open, the shared graphing calculator is displayed on everyone's session. When Follow moderator is selected:

- The participants are forced to view the shared Graphing Calculator window and see all the changes that are made on your calculator.
- Participants cannot dismiss the Graphing Calculator or use their private calculator. You, however, can always use your private calculator.
- Participants can make changes on the calculator only when they have calculator privileges. If participants do not have calculator privileges, their calculator buttons and menus are grayed out.
- If you dismiss the Graphing Calculator window, then the participants' (private and shared) calculators are dismissed as well.

Enter Mathematical Operators and Functions

The following table lists the allowable mathematical operators.

Type	To perform this operation...	Type	To perform this operation...
+	Add	/	Divide
-	Subtract	^	Exponent
*	Multiply	()	Parenthesis

Use the following abbreviations for these functions and numbers.

Type	To represent this function or number...	Type	To represent this function or number...
sqrt	Square Root	sec	Secant
abs	Absolute Value	cot	Cotangent
log	Logarithm (base 10)	asin	Arcsine
ln	Natural Logarithm	acos	Arccosine
sin	Sine	atan	Arctangent
cos	Cosine	pi	π
tan	Tangent	e	e
csc	Cosecant		