



Getting Started

with

TI InterActive!™

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Introduction

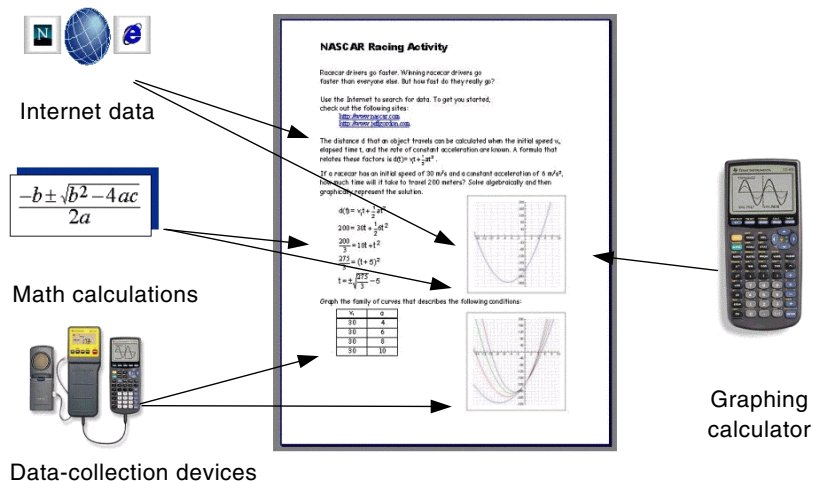
TI InterActive!™ is a document-creation program with the math features of a powerful TI graphing calculator. It lets you build documents that contain not only text and pictures but also dynamically connected graphing and calculation objects.

What makes a TI InterActive! document different?

The interactive math objects in a TI InterActive! document set it apart from the documents that you create with other Windows® applications. Your documents can use data from the Internet, TI data-collection devices, and supported TI graphing calculators.

NOTE: Supported TI graphing calculators are:

TI-83, TI-83 Plus,
TI-83 Plus Silver Edition,
TI-84 Plus,
TI-84 Plus Silver Edition,
TI-89, TI-89 Titanium,
TI-92, TI-92 Plus,
Voyage™ 200.



What can I do with TI InterActive!?

Teachers can create:

- **Compelling classroom activities** — You can create activities that encourage learning by discovery.
- **Captivating lessons** — You can design attractive lessons that cover necessary information while allowing exploration.
- **Homework that encourages learning** — You can build printed, conventional assignments or “live” assignments in the form of TI InterActive! files that students can complete and return.

Students can create:

- **Informative reports** — You or your teacher can create preformatted labs and other types of reports.
- **Attractive, clear homework papers** — You can create homework that shows the flow of your work with your results.

Installing TI InterActive!

TI InterActive!™ can be installed from a TI InterActive! CD-ROM or from a file downloaded from the Web. Check the system requirements below, and follow the steps for the installation method that applies to you.

System requirements

The computer that you use to run TI InterActive! must have:

- Microsoft® Windows® 98, Windows ME, Windows 2000, or Windows XP.
- Microsoft .NET Framework 1.1 or later must be installed as an update to Microsoft Windows.
- Microsoft Internet Explorer 5.5 or later.
- Hard disk with 40 MB available for TI InterActive! (18 MB required for installation).
- CD-ROM drive (if installing from a CD).

To use the Internet features of TI InterActive!:

Your computer must have a working Internet connection.

To read the electronic documentation:

Your computer must have Acrobat Reader 3.02 or later (16 MB hard disk space).

To communicate with a supported device:

You can transfer programs and data between TI InterActive! and a supported graphing calculator, or collect samples from a supported data-collection device. Your computer must have:

- TI Connect™ 1.5 (50 MB hard disk space available; 32 MB required for installation).
- An available USB port or a serial communication port configured as Com 1, 2, 3, or 4.
- An appropriate TI Connectivity Cable — USB Computer cable, USB Silver Edition cable, Serial for Windows cable (black link), or Serial for Windows/Mac cable (gray link).

NOTE: Supported data-collection devices are:

Calculator-Based Laboratory™ (CBL™),
Calculator-Based Laboratory 2™ (CBL 2™),
Calculator-Based Ranger™ (CBR™),
Vernier LabPro®.

For more information regarding TI products and support:

- Visit the TI Education home page: education.ti.com
- Or search the TI-Cares™ KnowledgeBase and submit e-mail inquiries: education.ti.com/support
- Or call toll-free: (800) TI-CARES (800) 842-2737

Installing from a CD-ROM

To install TI InterActive!:

1. Close all open programs.
2. Insert the TI InterActive! CD in your CD-ROM drive.
3. If the installer does not start automatically, click the Windows Start button, and then click Run. Type **D:\setup.exe**, and then press Enter. (Substitute the letter of your CD-ROM drive if it is not D.)
4. Follow the displayed instructions. When the installer has completed, it returns you to the Windows desktop. You may need to restart the computer before using TI InterActive!.

TIP: If you currently have Display set for Large Fonts, change to Small Fonts before rebooting.

Microsoft .NET Framework is installed automatically on computers that don't already have it.

Installing from a download from the Web

After downloading the executable file, either:

- Double-click the file.
- or –
- Click Start ► Run and then type the file's path name.

NOTE: If you run TI InterActive! before installing Microsoft .NET Framework, any TI InterActive! operation that requires the .NET Framework will display an error message when you try to use it.

If your computer does not have Microsoft .NET Framework, you can download Microsoft .NET Framework 1.1 or later from the Microsoft Web site (windowsupdate.microsoft.com).

You can keep your Windows operating system up-to-date by downloading updates from Microsoft.

1. Make sure your computer has access to the Internet.
2. Use your Web browser to go to the Windows Update Web site (windowsupdate.microsoft.com).

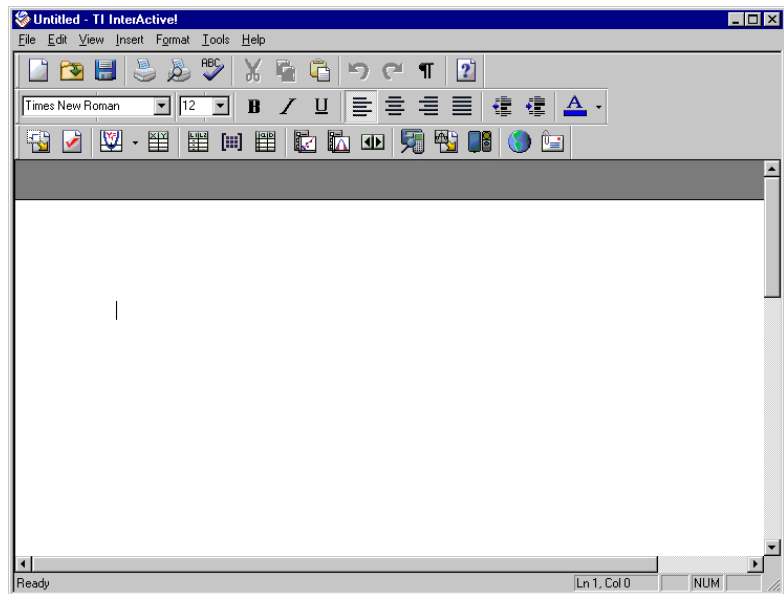
3. Scan for available updates, and select Microsoft .NET Framework.
4. Download and install the .NET Framework update, restart your computer, and then install TI InterActive!.

Starting TI InterActive!

After completing the installation, it's a good idea to start TI InterActive! and test the connections that you plan to use.

- There will be a new icon on your desktop. Double-click it. Depending on your machine and its configuration, it may take a few seconds for the application to open. TI InterActive! starts with the cursor at the top of a blank document.
- or –
- Click the Windows Start button, point to Programs, TI InterActive!, and then click TI InterActive!.

TIP: You can open a saved TI InterActive! document from the Windows Explorer by double-clicking the document.



TI InterActive! toolbar

The buttons on the TI InterActive! toolbar give you quick access to the program's main features.



Performs calculations and defines variables and functions.



Specifies the mode settings for each object.



Graphs functions and plots statistical data.



Generates a table of values for defined functions.



Enters and/or edits lists of data.



Enters and/or edits matrices.



Performs typical spreadsheet operations.



Performs statistics regression calculations on lists of data.



Performs statistical tests and intervals.



Inserts a slider that lets you change variable values.



Transfers data to/from a connected TI calculator.



Captures the screen of a connected TI calculator.



Collects data from a CBL™, CBL 2™, CBR™, or Vernier LabPro®.



Browses the Web and extracts data directly from Web pages.



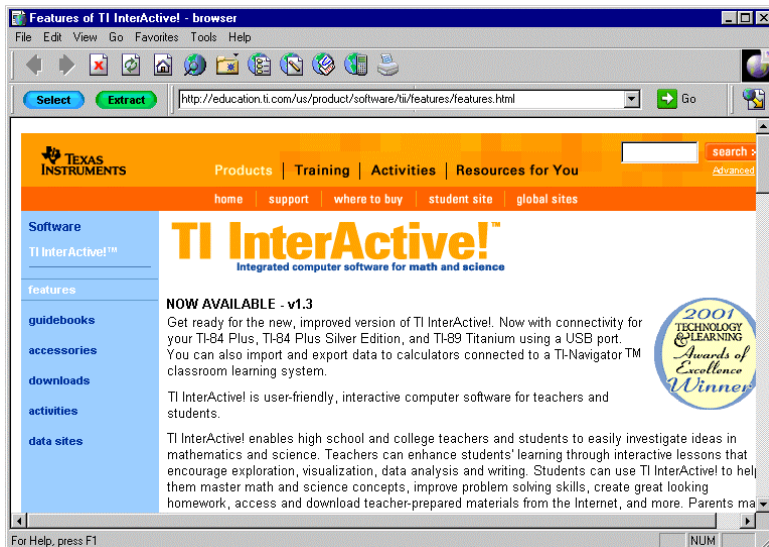
Sends e-mail attachments of your current document.


Testing your Internet connection

Perform this test to see if your Internet connection is working.

1. On the toolbar, click the Web Browser button . The built-in Web browser displays the TI InterActive! home page.

NOTE: Before you can use the Internet features of TI InterActive!, your PC must have a working Internet connection.



2. Click the browser's Close button . The test is complete.

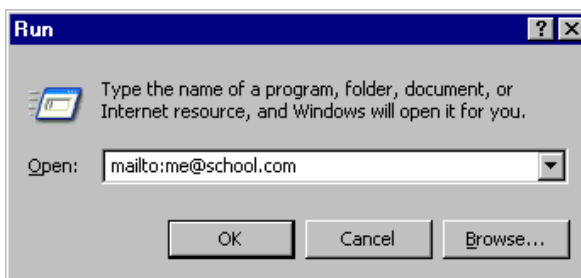
What to do if the test fails

If you have problems completing this test, verify that you are connected to an Internet Service Provider. On a local area network (LAN), see if you can access other areas of your network or server. On a dial-up connection, see if your modem is working properly.

Testing your e-mail connection

Many Web sites contain a button or block of text that you can click to send an e-mail message. Perform this test to make sure your e-mail program is registered as your e-mail client.

1. Click the Windows Start button, and then click Run.
2. In the text box, type **mailto:** followed by your e-mail address.




3. Click OK. Your e-mail software should start up and open a blank message with your address shown as the recipient.
4. Type some text in the body of the message, and send it. When you receive the message, the e-mail test is complete.

What to do if the test fails

If you have problems completing this test, verify that you have an e-mail client installed. If you do not, contact your Internet Service Provider for assistance.

Exiting TI InterActive!

From the menu, click File ► Exit. When you exit TI InterActive!, you are prompted to save any unsaved changes that you have made. Click the No button if you do not want to save the changes.

TIP: You can also exit by pressing Alt+F4 or clicking the Close button .

Exercise 1: Performing Calculations in a Document

You perform many calculations in TI InterActive!™ documents by inserting a Math Box object. Data that you store and functions that you define in a Math Box can be used by subsequent objects, such as graphs, tables, and other Math Boxes.

Homework: Math period 1
Performing algebraic calculations
Student name: _____

Evaluate the following expressions. Display both the expression and the result.

$\frac{5^2 \cdot 4}{7}$ $5^{\wedge}2 * 4/7$ $\frac{100}{7}$


$\cos 25$ $\cos(25)$.991203

$\sin\left(\frac{\pi}{4}\right)$ $\sin((\pi)/(4))$ $\frac{\sqrt{2}}{2}$

Find the decimal approximation of the following:

$\frac{2^8 \cdot 43}{12}$ $\frac{2752}{3}$ Answer: _____

$\frac{3^3 \cdot 17}{11}$ $\frac{459}{11}$ Answer: _____



The TI Math Palette window is open, displaying a grid of mathematical symbols and functions. The symbols include: fractions, square roots, powers, derivatives, integrals, summation, parentheses, arrows, Greek letters, and mathematical constants like pi and e. The window also has a menu bar (Edit, Math, Statistics, Tools, Help) and a zoom level of 100%.

This exercise shows you how to:

- Enter and format ordinary text.
- Access and use the Math Palette.
- Use a Math Box object to perform simple calculations in a document.
- Enter math and other special functions symbols.
- Save a TI InterActive! document.


Entering and formatting text

Entering text in a TI InterActive! document is similar to entering text in most text editors and word processors. For this exercise, you enter a page title and then change the font and point size.

1. Type **Homework** on the first line of your document.
2. Highlight the typed text and select a different font type and size from the font dialog box (Format ► Font).
3. Place the cursor at the end of the line and press the Enter key on the computer keyboard to start a new line.

Evaluating a math expression

Suppose you want to evaluate an expression such as $\frac{2^8 \cdot 43}{12}$ and display both the expression and its result within the document.

1. Click the Math Box button  on the TI InterActive! toolbar. An empty Math Box is inserted, accompanied by the TI Math Palette.

The Math Box looks like this while you are editing.



Math Palette —



TIP: Make sure you insert a Math Box for the expression. TI InterActive! cannot evaluate expressions that you type as ordinary text.

2. Type $2^8 \cdot 43 / 12$ into the Math Box. Press the Enter key on the computer keyboard or click **ENTER** on the Math Palette to evaluate the expression. TI InterActive! evaluates the expression, displays the result, and creates another Math Box.


Expression is evaluated when you press the Enter key on the computer keyboard, click **ENTER** on the Math Palette, or click outside of the Math Box.

$$\frac{2^8 \cdot 43}{12}$$

Result

$$\frac{2752}{3}$$

Empty math box for next calculation

TIP: You can also close the Math Box by selecting  on the Math Palette, or by clicking anywhere in the document.

3. Press the Esc key on the computer keyboard to close the unused Math Box.


Setting the form of results

You might expect to see a decimal result instead of $2752/3$ in the preceding example. A close decimal equivalent is $917.33333\dots$, but that's only an approximation. By default, TI InterActive! retains the more precise form: $2752/3$.

You can, however, change the form of any Math Box result by setting the Computation Mode of the box.

1. Click anywhere in the existing Math Box to select it. A solid border appears around the Math Box to show that it is selected.

TIP: You can also right-click on the Math Box and select Mode from the drop-down menu.

2. Click the Mode Settings button  on the TI InterActive! toolbar.

Note the three options available under Computation Mode:

Automatic Uses **Exact** where possible, but uses **Approximate** when your entry contains a decimal point. Also, certain functions may display **Approximate** results even if your entry does not contain a decimal point.


Exact Any result that is not a whole number is displayed in a fractional or symbolic form ($1/2$, π , $\sqrt{2}$, etc.). This mode reduces rounding errors that could be introduced by intermediate results in chained calculations.

Approximate All numeric results, where possible, are displayed in decimal form.

- Click the **Approximate** option to select it, and click OK. The result in the Math Box becomes a decimal approximation.

$2^{8.43}$
12
917.333

TIP: In Automatic mode, you can force a decimal result by using a decimal in the entry.

- Click the Mode Settings button  again, and change the Computation Mode back to **Automatic**, the original setting, and click OK.

This chart compares the Computation Mode settings.

The decimal point in the entry forces the Automatic result to a decimal.

Entry	Automatic Result	Exact Result	Approximate Result
$8/4$	2	2	2.
$8/6$	$\frac{4}{3}$	$\frac{4}{3}$	1.33333
$8.5*3$	\downarrow 25.5	$\frac{51}{2}$	25.5
$\text{sqrt}(2)/2$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$.707107
$\pi*2$	$2\cdot\pi$	$2\cdot\pi$	6.28319
$\pi*2.$	6.28319	$2\cdot\pi$	6.28319

Entering an expression from the TI Math Palette

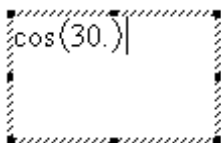
The TI Math Palette resembles a calculator keyboard. If you prefer to use the mouse instead of the keyboard, you can click the buttons on the palette.

1. Click to the right and below the Math Box that you have already entered, and press Enter. This places the cursor at the end of the document.

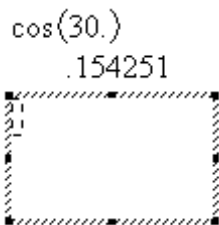
2. Click the Math Box button . An empty Math Box is inserted beneath the previous one.

TIP: If you type **cos** in the Math Box, you have to also type the opening parenthesis (.

3. On the Math Palette, click $\boxed{\text{COS}}$ $\boxed{3}$ $\boxed{0}$ $\boxed{.}$ $\boxed{)}$. The entry looks like this:




4. Click **ENTER**. TI InterActive! displays the result and presents a new empty Math Box, ready to receive an entry.















5. Press the Esc key on the computer keyboard to close the unused Math Box, or click anywhere in the document.

Keystroke and Math Palette equivalents

TIP: Click the Catalog button  on the Math Palette for a list of all TI InterActive! functions and symbols.

TIP: Click the α drop-down menu to find the θ character. This character is also available from the X key.

For this operation:	Type this:	Or click this:
\times (multiply)	*	
\div	/	
- (subtract or negate)	- (hyphen)	
\sqrt{x}	sqrt(x)	
x^2	$x^{\wedge}2$	
x^{-1}	$x^{\wedge}-1$	
y^x	$y^{\wedge}x$	
e^x	#e^(x)	
π	pi	
i (imaginary number)	#i	
Let variable $x =$ value y	$x := y$	
Store value y to variable x	$y \rightarrow x$ OR $y =: x$	

Appearance of items in a Math Box

Using the TI Math Palette, you can change the appearance properties of the entry and the result independently. You can even hide the entry or its result.


Some of the properties you can control include:

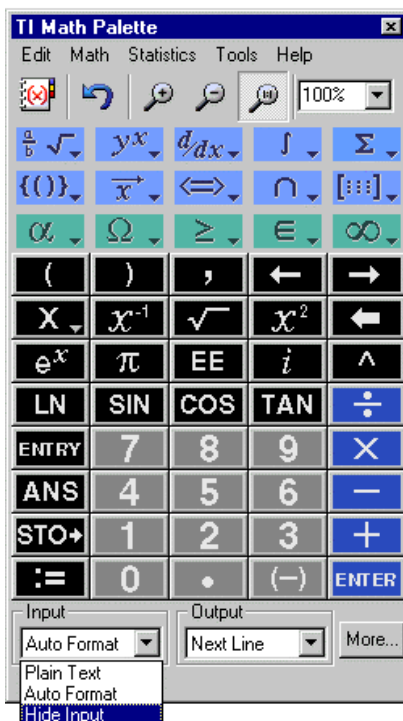
- The font, size, and color used for the entry or result.
- Whether the result is displayed on the next line or the same line as the entry.
- Whether the entry or result is displayed in text format, such as $(x^2)/(4y)$, or in math format, such as $\frac{x^2}{4y}$.
- Whether the entry or result is shown or hidden. You cannot hide both.


Changing the appearance of a Math Box

TIP: Once you evaluate the expression, the Input and Output settings return to the default settings.

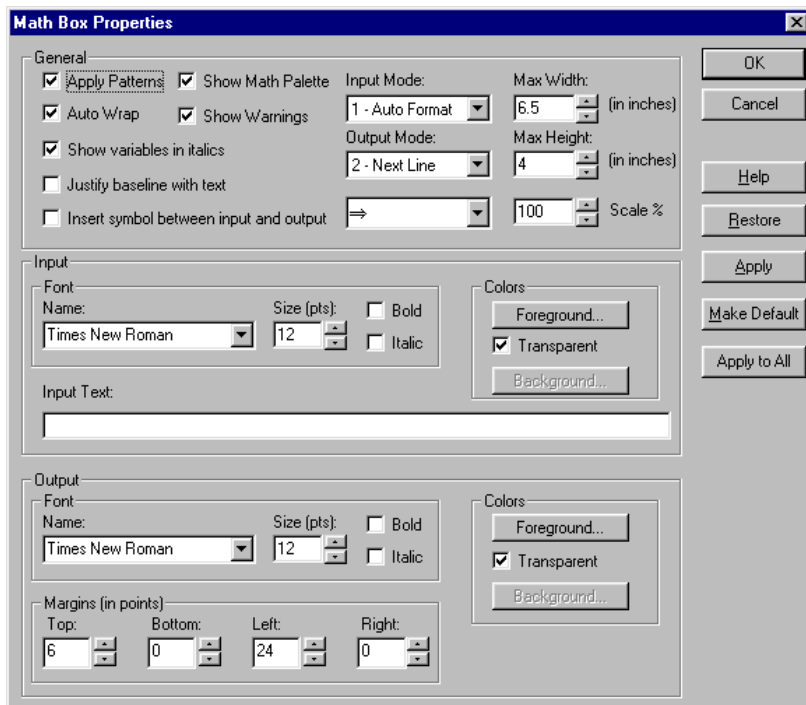
In this example, you can change the appearance of items in a Math Box. Suppose you want to hide the expression or the result.

1. Click the down arrow  next to the default option in the Input box. Click Hide Input.




2. To hide the result, click the down arrow  next to the default option in the Output box. Click Hide Output.

3. Click  (or on the Math Palette menu, click Edit ► Properties) to modify properties such as scaling factors, font type, size, and color.



Saving a TI InterActive! document

TI InterActive! uses a .tii extension to identify its documents.

1. On the TI InterActive! toolbar, click the Save button . Because you have not yet saved this document, TI InterActive! displays the Save As dialog box.
2. If necessary, navigate to the folder where you want to store the document.
3. In the File name box, type a name (such as **first report**) for the document.
4. Click Save.

Note: You can also export a document to other formats. Choose Export from the File menu. The options are Html Web Page, Word Compatible, Rich Text Format, and Plain Text.

Exercise 2: Storing Values as Variables

You can store a value as a named variable and then use the name to refer to that value in subsequent Math Boxes and graphs. When TI InterActive!™ evaluates an expression containing the name, it substitutes the value stored under that name.

Homework: Math period 2 Storing Values as Variables Student name: _____

Use the character string "hello" to create a variable and store the result of the expression $2+2^3$ in that variable.

```
hello := 2 + 23    10  
hello    10
```

After storing the value in the variable, use the variable name in an expression as a substitute for the stored value.

```
4.25*hello3    100000
```

What happens when you introduce the variable "goodbye"? Type $4*25*goodbye^3$ in a Math Box and find out.

```
4.25*goodbye3    100*goodbye3
```

Since the variable "goodbye" has not been defined, it is treated algebraically.

Try entering several expressions on a single line. Use $a=2$, $b=3$. Remember to separate the expression with pairs of colons.

```
a := 2 :: b := 3 ::  $\frac{a}{b}$  - 2.0    1.33333
```




This exercise shows you how to:

- Define a variable and assign a value to it.
- Display a variable's value in a document.
- Remove a variable.
- Perform symbolic calculations.
- Reposition TI InterActive! objects in a document.
- Reset all variables.

Storing a value in a variable

TIP: If you have changed a document and then attempt to create a new document, TI InterActive! gives you the option to save the first document before proceeding.

This example creates a variable named **num** and stores the result of the expression $5+8^3$ in that variable.

1. On the TI InterActive! toolbar, click the New button  to start a new, blank document.
2. Click the Math Box button  to insert a new Math Box.
3. Type the variable name **num** and then type **:=** (both characters are required from the keyboard), or click  on the Math Palette.

num :=

4. Type the expression **5+8^3**. The result—not the expression—will be stored in **num**.


num := 5+8^3 _____ This means: Let the variable “num” equal the result of $5+8^3$.

5. Press Enter on the computer keyboard. TI InterActive! creates the variable **num** and stores the result there.

num := 5 + 8³
517

Checking a variable's value


You can check the value of a variable by entering its name as the entry in a subsequent Math Box.

1. Click the Math Box button  to insert a new Math Box, if necessary.
2. Type the variable name **num** and press Enter on the computer keyboard. The value currently stored in **num** is displayed as the result.

num
517

Using a variable in a calculation

After storing a value in a variable, you can use the variable name in an expression as a substitute for the stored value.

1. Click the Math Box button  to insert a new Math Box, if necessary.
2. Type $4 \cdot 25 \cdot \text{num}^2$ in the Math Box, and press Enter. TI InterActive! substitutes 517, the value assigned to **num**, and evaluates the expression.

$$4 \cdot 25 \cdot \text{num}^2$$
$$26728900$$

3. Type $4 \cdot 25 \cdot \text{nonum}^2$ in a Math Box, and press Enter.

$$4 \cdot 25 \cdot \text{nonum}^2$$
$$100 \cdot \text{nonum}^2$$

Because the variable **nonum** has not been defined, it is treated algebraically in the result.

Updating a variable

If you want to update a variable with the result of a calculation, you must store the result explicitly.

Entry	Result	Comment
$a := 2$	2	
a^3	8	Result not stored in variable a .
a	2	
$a := a^3$	8	Variable a updated with result.
a	8	
$a^2 \rightarrow a$	64	Variable a updated with result.
a	64	

Types of variables

You can store any TI InterActive! data type as a variable. Some examples are:

Data type	Examples
Expression	2.54 1.25E6 2π $x_{\min}/10$ $2+3i$ $(x-2)^2$ $\sqrt{2}/2$
List	{2, 4, 6, 8} {1, 1, 2}
Matrix	$\begin{bmatrix} 1 & 2 & 3 \\ 3 & 6 & 9 \end{bmatrix}$ This can be entered as: [1,2,3;3,6,9]
Character string	"Hello" "xmin/10" "The answer is:"
Function	myfunc(arg) ellipse(x, y, r1, r2)

Entering multiple statements in a Math Box

To enter several statements in a single Math Box, separate them with pairs of colons. Only the result of the last expression is shown.

$a := 5 :: b := 2 :: \frac{a}{b} \cdot 1.0$
2.5

Effects of repositioning or deleting math objects

You can delete TI InterActive! math objects (such as Math Boxes, lists, and graphs), and you can drag them to a different position on the page. However, deleting or moving an object can cause results to change in the objects that follow it.

That's because variables persist from one math object to another. The physical positions of the objects determine the order in which they are processed by the TI InterActive! math system. The "math flow" is identical to the reading pattern: left-to-right along each line of a paragraph, and top-to-bottom between paragraphs.

Resetting all variables by inserting a math section break

At times, the persistence of variables can create a problem. Suppose, for example, that you want to change the expression stored in **num** for use in a different equation.

TIP: Math Section Break is on the Insert menu.

$$\text{num} := 5 + 8^3$$

517

num

517

$$4.25 \cdot \text{num}^2$$

26728900



num

num

$$4.25 \cdot \text{num}^2$$

100 · num²

— Inserted math section break shows the resetting effect on the math flow.

Rules for naming variables

Variable names that you create:

- Can use 1 to 32 characters consisting of letters and digits. This includes Greek letters (but not π), accented letters, and international letters.
 - Do not use spaces.
 - The first character cannot be a digit.
- Can use either uppercase or lowercase letters. The names AB22, Ab22, aB22, and ab22 all refer to the same variable.
- Cannot be the same as a preassigned name. Preassigned names include:
 - Built-in functions, such as **abs()**. For a list of functions, refer to the *Functions and Instructions* section of the online help.

Here are some examples:

Variable name	Valid?
Myvar	Yes
My var	No. Contains a space.
a	Yes
Log	No. Name is preassigned to the log() function.
Log1	Yes
3rdTotal	No. Starts with a digit.

Reusing the last answer

TI InterActive! automatically stores the last calculated result as a system variable named **ans**. You can use **ans** in the next Math Box to create a chain of calculations.

For example, calculate the area of a garden plot that is 1.7 meters by 4.2 meters. Then calculate the yield per square meter if the plot produces a total of 147 tomatoes.

1. In a new Math Box, type **1.7*4.2**, and press Enter on the computer keyboard.

```
1.74.2
  7.14
```

2. Type **147/ans**, and press Enter on the computer keyboard to find the yield.

```
  147
  ---
ans
20.5882
```

As a second example, calculate $\frac{3.76}{-7.9+\sqrt{5}}$ and then add $2 \cdot \log 45$.

1. Type **3.76/(-7.9+sqrt(5))**, and press Enter on the computer keyboard.

$$\frac{3.76}{-7.9 + \sqrt{5}}$$


-.66385

2. Type **ans+2*log(45)**, and press Enter on the computer keyboard.

$$\text{ans} + 2 \cdot \log(45)$$

2.64258

Reusing the last entry

The  button on the Math Palette recalls the last entry you evaluated and places it in the entry line. You can take advantage of this feature when you need to repeatedly evaluate an expression that updates a variable.

For example, using a variable, find the square of 1, 2, 3, 4, etc.

1. Set the variable's initial value. Press Enter.

$$\text{counter} := 0$$

0

2. Enter the expression that you want to repeat.

$$\text{counter} := \text{counter} + 1 :: \text{counter}^2$$

1

-
3. Repeatedly click the  button on the Math Palette, and press Enter on the computer keyboard to increment the variable and calculate its square.

counter := counter + 1 :: counter²
4

counter := counter + 1 :: counter²
9

counter := counter + 1 :: counter²
16

Exercise 3: Creating a Function-Graphing Assignment

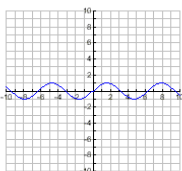
In this exercise, you create an interactive homework assignment for electronic distribution. Recipients can open their copy of the document in TI InterActive!™ and use the graphing features to complete the assignment.

Homework: Math period 3

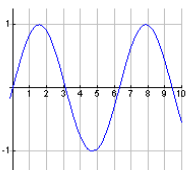
Finding zeros of a function

Student name: _____

Here's a graph of the function $y=\sin(x)$.



Zooming in on the right side of the graph, you can see that the function intersects the x axis at values that seem to be multiples of pi (approximately 3.14159).





Double-click the above graph to open it, and use the Calculate Zero command to find the zero of the function that occurs near 3. What value did you find? _____ This tells you that the sine of _____ is 0.

Find the two zeros of this function that are near 6 and 9. Are they multiples of pi? _____ What general statement might you make about the sine of any angle that is a multiple of pi? _____


This exercise shows you how to:

- Insert and define a function graph in a TI InterActive! document.
- Resize a graph.
- Copy and paste a graph.
- Zoom in on a portion of the graph.
- Find zeros of a graphed function.



Creating a title for the assignment

1. At the left side of the formatting toolbar, click the down arrow  next to the font name, and click Arial as the font for the assignment title.
2. Click the down arrow  next to the text size and click **24** as the text size for the title.
3. Type the three title lines shown at the top of the sample on the previous page. Press the Enter key on the computer keyboard after each line.
4. Press Enter again to leave a blank line after the title.


Inserting and defining a graph

1. Click the down arrow  next to the text size and click **10** as the size for the document's normal text.
2. Type **Here's a graph of the function $y=\sin(x)$:** and press Enter on the computer keyboard.

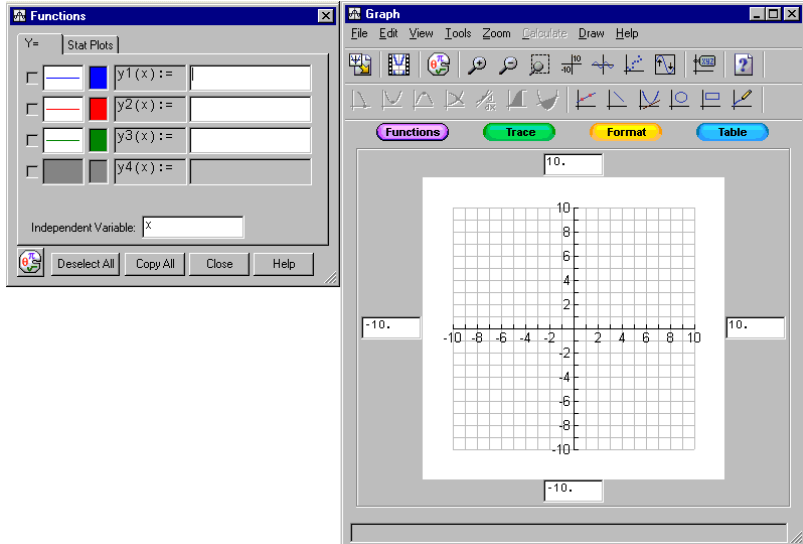
TIP: The Graph button's toolbar image reflects the most recently used graph type. To create a new graph of that type, just click the button instead of the down arrow.


3. On the TI InterActive! toolbar, locate the Graph button  and click the down arrow  next to it. A group of buttons is displayed, representing the available graph types.



- Click the  button. The Functions editor is displayed along with the Graph window.

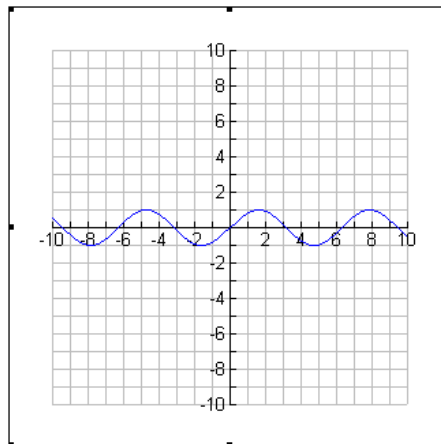
TIP: You can define many functions and choose to graph selected ones. Clear the checkmark for those that you don't want to graph.



- In the uppermost text box of the Y= tab, type **sin(x)**, and then press Enter on the computer keyboard. TI InterActive! graphs the function.
- Click the Save To Document button  in the Graph window to insert the graph into the document.

Resizing the graph



- Click the graph in the document. A selection box appears around the graph to show that it is selected.




NOTE: See page 51-54 for more details on formatting and using objects.

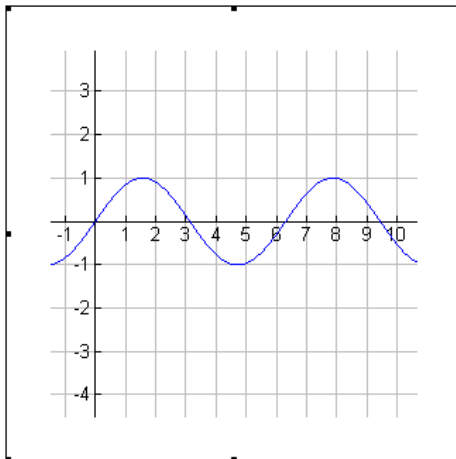
2. Move the cursor to one of the corners of the selection box until the cursor changes.
3. Using the left mouse button, drag the selection out to increase (or in to decrease) the graph's size.


Inserting a copy of the graph

1. Click below the graph to deselect it, and press Enter on the computer keyboard to make sure the cursor is positioned at the end of the document.
2. Type the paragraph from page 27 that begins with "Zooming in on the right side..." and press Enter on the computer keyboard.
3. Click the graph that you inserted earlier. A selection box appears around the graph to show that it is selected.
4. On the main toolbar, click the Copy button  to copy the selected graph to the clipboard.
5. Click below the "Zooming in..." paragraph to position the cursor where you want a copy of the graph.
6. Click the Paste button . A copy of the graph is pasted at the end of the document.

Zooming in on a portion of the graph

1. Double-click the graph below the “Zooming in...” paragraph.
2. Click the Zoom Box button  on the Graph toolbar.
3. Click and drag the Zoom Box over the right half of the graph. Your selection should resemble the graph below.



4. Click the Save To Document button  to insert the graph into the document.

Completing the assignment

1. Click beneath the graph and press Enter on the computer keyboard to position the cursor at the end of the document.
2. Type the last two paragraphs from page 27 that begin with “Double-click the above graph...” and press Enter on the computer keyboard.

Finding zeros of a graphed function

To find the zeros of the graphed function:

1. Double-click the graph you just created to activate the Graph window.
2. Click Calculate ► Zero on the Graph toolbar. The Calculate Zero window is displayed.
3. You will need to set a lower limit, upper limit, and an initial guess before calculating zero.

There are two ways to set limits.

- You can enter numeric values in the limit entry boxes.
 - You can click and drag the dotted limit lines on the graph in the Graph window.
4. Type a value directly into the Guess box, or use the mouse to click and drag your guess point on the graph.
 5. After setting the initial guess and upper and lower limits, click the Calculate button. The answer is displayed in the Results box.

Exercise 4: Creating a Report

In this exercise, you create a report based on observed data for a specific airplane's power-off glide performance at several speeds. You then plot the data, perform a statistics regression, and estimate the speed that will produce the minimum sink rate for the plane.

Homework: Math period 4 Glide Performance of an Airplane Student name: _____

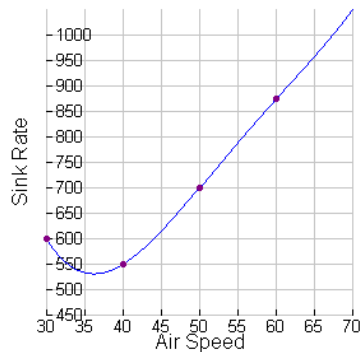
My assignment was to show an airplane's glide performance and to estimate the speed that would produce the minimum sink rate for the plane. I used the following data: Airspeeds (defined as L1): 30 mph, 40 mph, 50 mph, 60 mph, and 70 mph. Sink rates (defined as L2): 600 ft./min., 550 ft./min., 700 ft./min., 875 ft./min., and 1050 ft./min.

L1	L2
30	600
40	550
50	700
60	875
70	1050

Quartic Regression

$$\text{regEQ}(x) = .000625x^4 + -.141667x^3 + 11.9375x^2 + -425.833x + 5950.$$

Graphed regression equation:



The plane's minimum sink glide speed should be around 36 mph at 531 ft./min.


This exercise shows you how to:

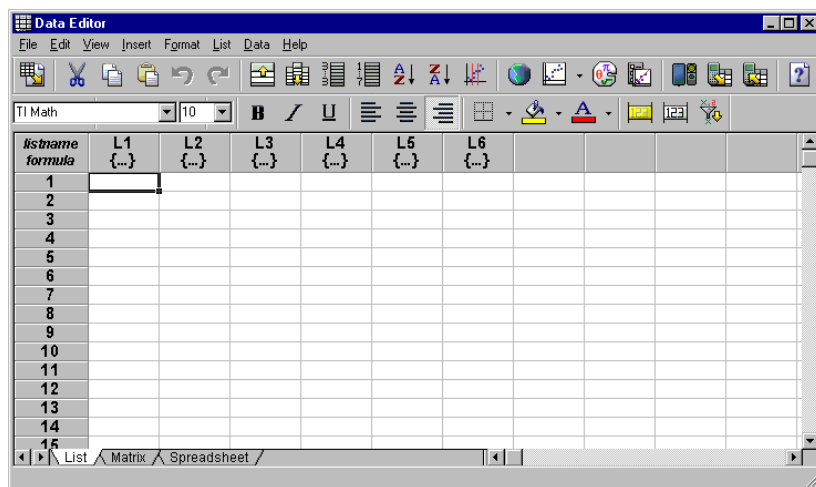
- Enter statistical data using the List Editor.
- View plotted data.
- Calculate a regression and display the results.
- Graph a regression and analyze the data.

Entering the data

You have recorded the following rates of sink after making several timed descents at different gliding speeds. You decide to enter the airspeeds into list L1 and the sink rates into L2.


Airspeeds (L1)	Sink Rates (L2)
30 mph	600 ft./min.
40 mph	550 ft./min.
50 mph	700 ft./min.
60 mph	875 ft./min.
70 mph	1050 ft./min.

1. On the TI InterActive!™ toolbar, click the List button . The List Editor is displayed, with the empty cell at the top of list L1 selected and ready for an entry.






TIP: The tabs at the bottom of the editor let you switch quickly among list editing, matrix editing, and spreadsheet operations.

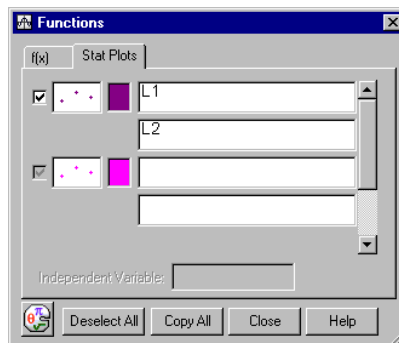
2. Type the first airspeed, **30**, and then press the down arrow key on the computer keyboard to move to the next cell.
3. Type the next airspeed, press the down arrow key, and continue until you have entered all the airspeeds into L1.
4. Click the empty cell at the top of list L2.
5. Type the sink rates in the second column in a similar manner, with the number in each cell corresponding to the number in the first column as shown in the table above.

-
- Click the List Editor's Close button . The list is inserted into the document.

L1	L2
30	600
40	550
50	700
60	875
70	1050



Plotting the glide performance

- With the cursor positioned at the end of the list, press Enter to create a new line.
- On the TI InterActive! toolbar, locate the Graph button  and click the down arrow  next to it. A group of buttons is displayed, representing the available graph types.
- Click the Scatter Plot button . The Functions editor is displayed along with a Graph window.
- Make sure that the Stat Plots tab is selected.
- In the uppermost text box, type **L1** to specify it as the list containing the x coordinates.
- Press the Tab key to move to the second text box, and type **L2** to specify it as the list containing the y coordinates.





- If it is not already checked, click the check box at the left to select this plot. TI InterActive! plots the data points in the Graph window. The points are not visible because they are outside the default viewing boundaries of the Graph window.

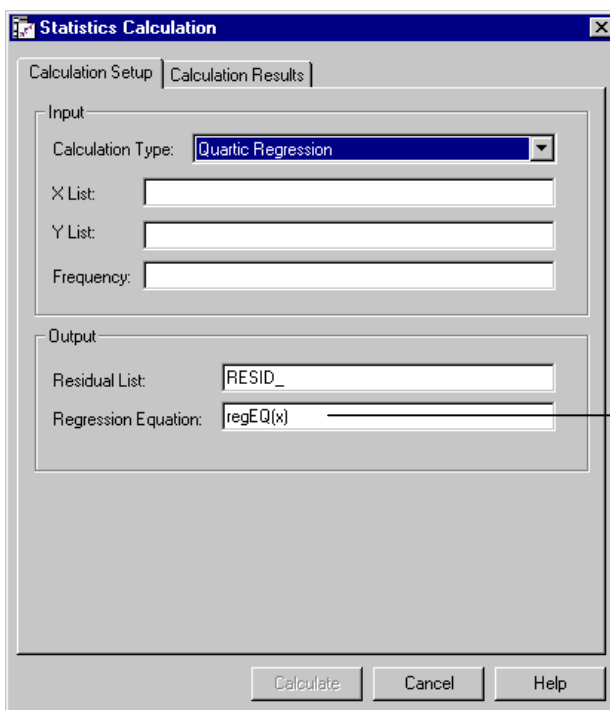
Viewing the plotted data

1. In the Graph window, click the Zoom Statistics button . The viewing boundaries are adjusted automatically to show all the plotted data.
2. Click the Save To Document button  to close the Graph window and insert the graph in the document.

Calculating a regression on the data

TI InterActive! lets you calculate several types of regressions on data stored in lists. In this exercise, you calculate a quartic regression on the plotted pairs of airspeeds (L1) and sink rates (L2).

1. Position the cursor between the list and the graph and press Enter on the computer keyboard.
2. Click the Stat Calculation Tool button  on the TI InterActive! toolbar. The Statistics Calculation tool is displayed.
3. Click the down arrow  next to Calculation Type, scroll down through the list, and click Quartic Regression.



The screenshot shows the "Statistics Calculation" dialog box with the "Calculation Setup" tab selected. The "Calculation Type" dropdown menu is set to "Quartic Regression". The "X List" and "Y List" fields are empty. The "Frequency" field is empty. In the "Output" section, the "Residual List" field contains "RESID_" and the "Regression Equation" field contains "regEQ(x)". At the bottom of the dialog box, there are three buttons: "Calculate", "Cancel", and "Help".

After calculating a regression equation, you can graph it by entering this name in the graph.


-
4. In the text box labeled X List, type **L1**.
 5. In the text box labeled Y List, type **L2**.
 6. Click Calculate to calculate the regression equation and its variables.
 7. Click the Save Results button. TI InterActive! stores the results in variables, closes the Statistics Calculation tool, and displays the selected results in your document.

TIP: Before saving results to the document, click the check boxes next to the results you want displayed.

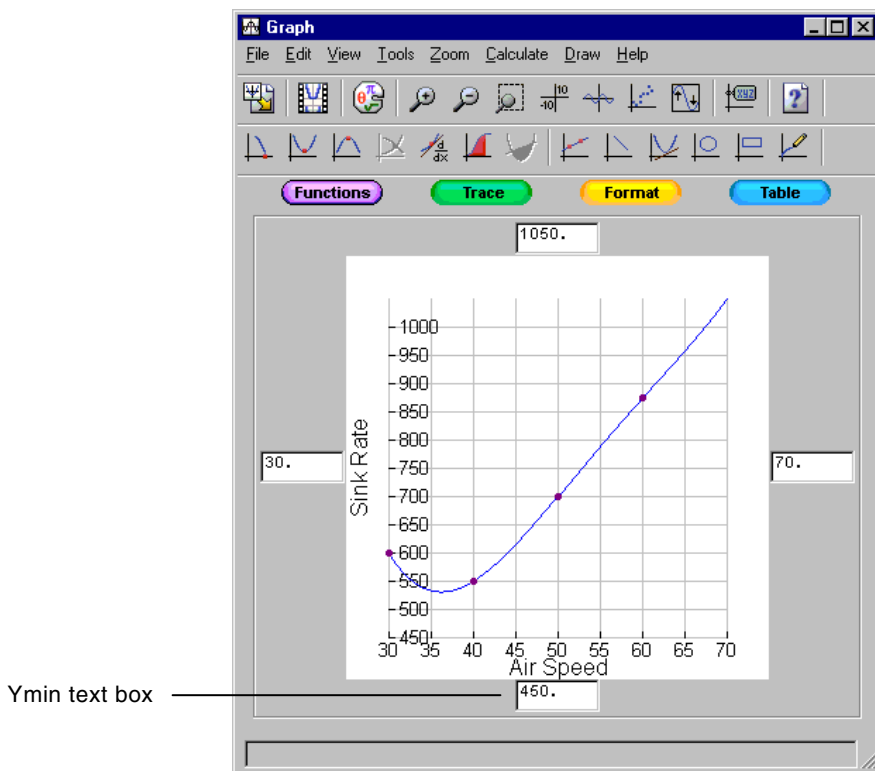
Quartic Regression


$$\text{regEQ}(x) = .000625x^4 + -.141667x^3 + 11.9375x^2 + -425.833x + 5950.$$

Graphing the regression equation

1. With the cursor positioned at the end of the regression results, press Enter on the computer keyboard to move the cursor to the next line. Type the heading **Graphed regression equation:**, and then press Enter again.
2. Double-click the graph that you inserted earlier.
3. Click the f(x) tab.
4. In the uppermost text box of the f(x) tab, type **regEQ(x)** and then press Enter on the computer keyboard.
5. Click the Zoom Fit button  in the Graph window to adjust the viewing boundaries.

- In the text box for Ymin at the bottom of the graph, change the value to **450** and press Enter. This makes it easy to see the bottom of the regression curve.



- Click the Save To Document button  in the Graph window to insert the graph into the document.

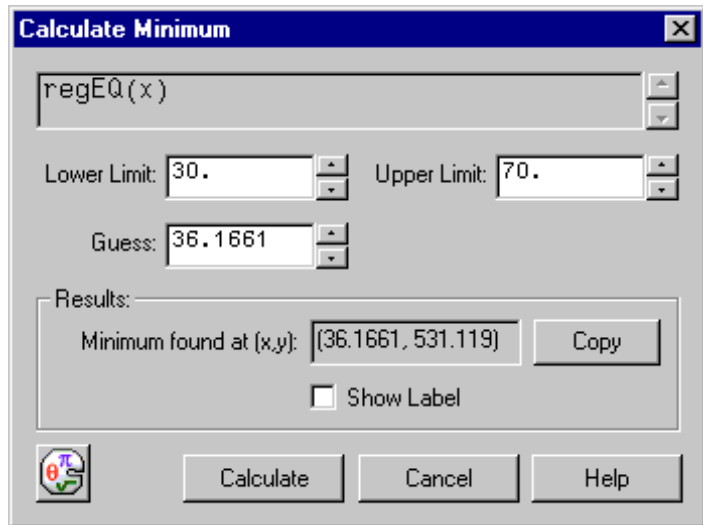
Finding the plane's minimum sink glide speed

TI InterActive! can find the minimum value of a function between specified starting and ending x values. For our data, the lowest point on the function marks the speed that produces the plane's slowest rate of sink.

- Double-click the graph you just created to activate the Graph window.
- In the Graph window, click Calculate ► Minimum. The Calculate Minimum window is displayed.

3. You can enter starting and ending x values in the limit entry boxes or you can click and drag the limit lines on the graph.
4. Click Calculate to find the minimum x and y values.

Note: This is the glide speed that will keep the plane aloft for the longest period of time. However, it is not the speed that produces the greatest horizontal glide distance.



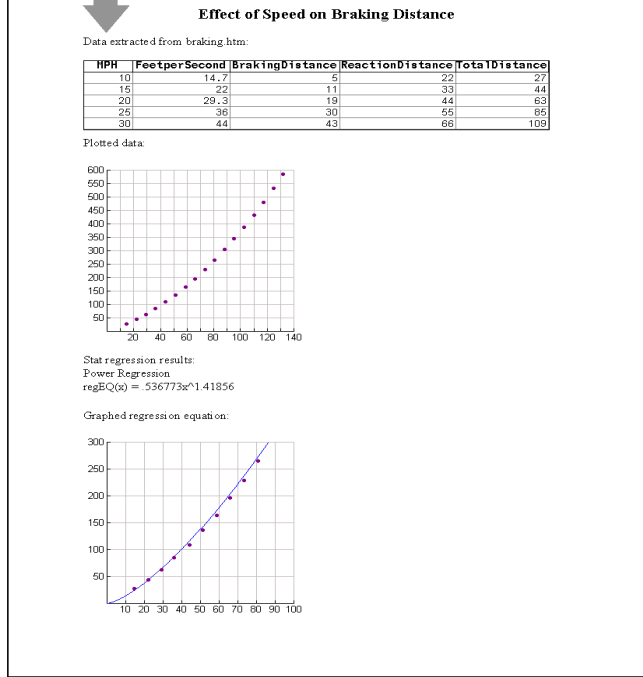
5. Type the following sentence to complete your report. **The plane's minimum-sink glide speed should be around 36 mph at 531 ft./min.**

Exercise 5: Analyzing Data from a Web Site

You can extract data directly from a Web page into a TI InterActive!™ document. This exercise is similar to the previous one, except that in this case you extract automobile braking distance data from a Web page and analyze it.

MPH	Feet per Second	Braking Distance	Reaction Distance	Total Distance
10	14.7	5	22	27
15	22	11	33	44
20	29.3	19	44	63
25	36	30	55	85
30	44	43	66	109
35	51.3	59	77	136
40	58.7	76	88	164
45	66	97	99	196
50	73.3	119	110	229
55	80.7	144	121	265

Data provided by Michael J. Shepston & Associates,
<http://www.scottsdalelaw.com/shepston/braking.html>





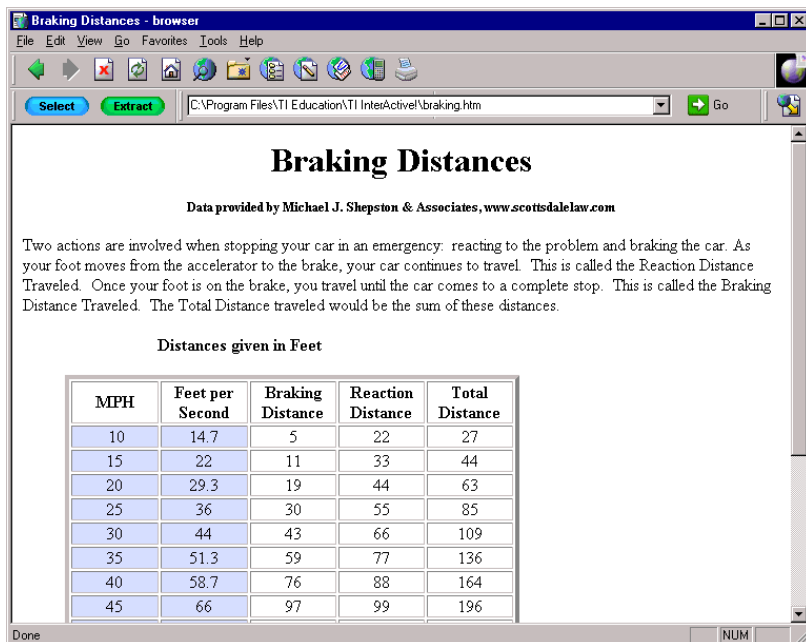
This exercise shows you how to:

- Select and extract data from a Web page.
- Plot the extracted data and calculate a regression.
- Display the plotted data and the regression equation together for visual comparison.

Opening the sample Web page

You don't need a working Internet connection to perform this exercise. The sample Web page was copied to your hard disk during installation of TI InterActive!.

1. On the TI InterActive! toolbar, click the New button . TI InterActive! displays a new, blank document.
2. Type the title **Effect of Speed on Braking Distance** at the top of the page, and press Enter on the computer keyboard.
3. Type the heading **Data extracted from braking.htm**;, and press Enter on the computer keyboard.
4. Click the Web Browser button . The TI InterActive! browser opens.
5. On the browser's menu, click File ► Open.
6. If necessary, navigate to the folder in which you installed TI InterActive!.
7. Click the filename **braking.htm**, and click Open. The browser displays a page with a table of braking distance data.



Braking Distances

Data provided by Michael J. Shepston & Associates, www.scottsdalelaw.com

Two actions are involved when stopping your car in an emergency: reacting to the problem and braking the car. As your foot moves from the accelerator to the brake, your car continues to travel. This is called the Reaction Distance Traveled. Once your foot is on the brake, you travel until the car comes to a complete stop. This is called the Braking Distance Traveled. The Total Distance traveled would be the sum of these distances.

Distances given in Feet

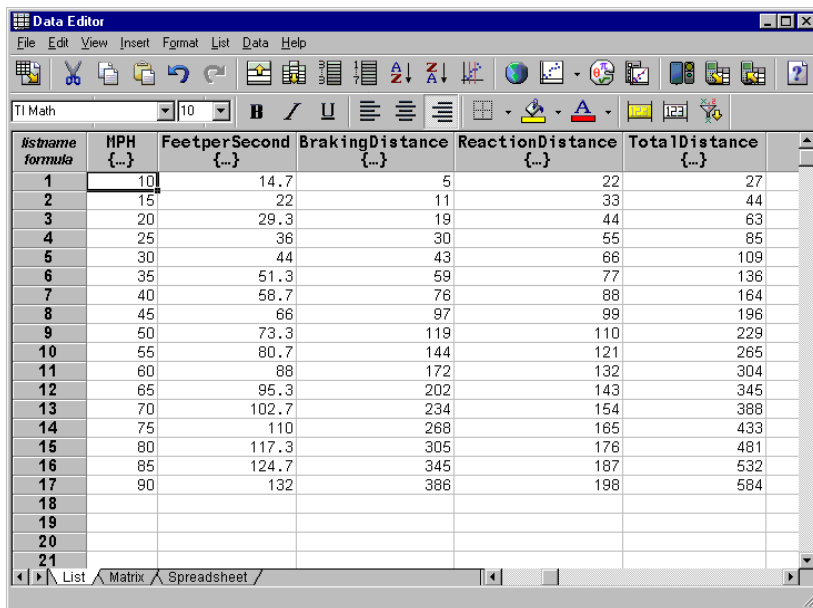
MPH	Feet per Second	Braking Distance	Reaction Distance	Total Distance
10	14.7	5	22	27
15	22	11	33	44
20	29.3	19	44	63
25	36	30	55	85
30	44	43	66	109
35	51.3	59	77	136
40	58.7	76	88	164
45	66	97	99	196

Extracting the data

TIP: To select only specific rows, drag through the rows instead of clicking the Select button.

When you extract Web data, TI InterActive! creates lists in the List Editor and places the data in those lists.

1. Click the Select button at the top of the browser window. The browser highlights the table of braking distance data.
2. Click the Extract button. The List Editor is displayed, with the Web data copied to lists.




The screenshot shows the TI Data Editor window with a table of braking distance data. The table has six columns: #, MPH, Feet per Second, Braking Distance, Reaction Distance, and Total Distance. The data is as follows:



#	MPH	Feet per Second	Braking Distance	Reaction Distance	Total Distance
1	10	14.7	5	22	27
2	15	22	11	33	44
3	20	29.3	19	44	63
4	25	36	30	55	85
5	30	44	43	66	109
6	35	51.3	59	77	136
7	40	58.7	76	88	164
8	45	66	97	99	196
9	50	73.3	119	110	229
10	55	80.7	144	121	265
11	60	88	172	132	304
12	65	95.3	202	143	345
13	70	102.7	234	154	388
14	75	110	268	165	433
15	80	117.3	305	176	481
16	85	124.7	345	187	532
17	90	132	386	198	584
18					
19					
20					
21					

Note: See page 53 for details about resizing objects.

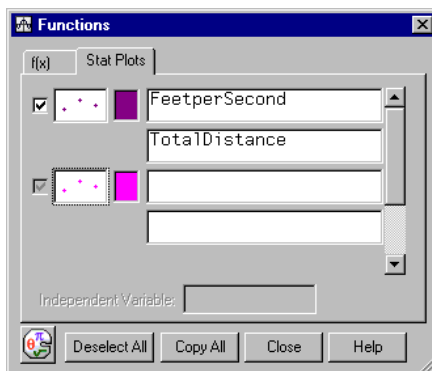
Plotting the braking performance



3. Click the Save To Document button  to insert the lists into the document. Adjust the list screen to view all columns of data.

Now that you have the braking distance data copied into lists, you can create a scatter plot of the speeds (x) against the total stopping distances (y).



1. With the cursor positioned at the end of the list, press Enter on the keyboard, type **Plotted data:**, and then press Enter again to create a heading for the regression results.
2. On the TI InterActive! toolbar, click the down arrow  next to the Graph button.
3. From the drop-down buttons, click Scatter Plot . The Functions editor is displayed.

4. Make sure that the Stat Plots tab is selected. In the uppermost text box, type **FeetperSecond** to specify it as the list containing the x coordinates.
5. Press the Tab key to move to the second text box, and type **TotalDistance** to specify it as the list containing the y coordinates.



6. Press Enter on the computer keyboard.
7. Click the Zoom Statistics button  in the Graph window to adjust the viewing boundaries.
8. Click the Save To Document button  to close the Graph window and insert the graph in the document.


Calculating a regression on the data


1. With the cursor positioned at the end of the graph, press Enter on the computer keyboard, type the heading **Stat regression results:**, and then press Enter again.
2. Click the Stat Calculation button  on the TI InterActive! toolbar. The Statistics Calculation tool is displayed.
3. Click the down arrow  next to Calculation Type, scroll down through the list, and click Power Regression.
4. In the text box labeled X List, type **FeetperSecond**.
5. In the text box labeled Y List, type **TotalDistance**.

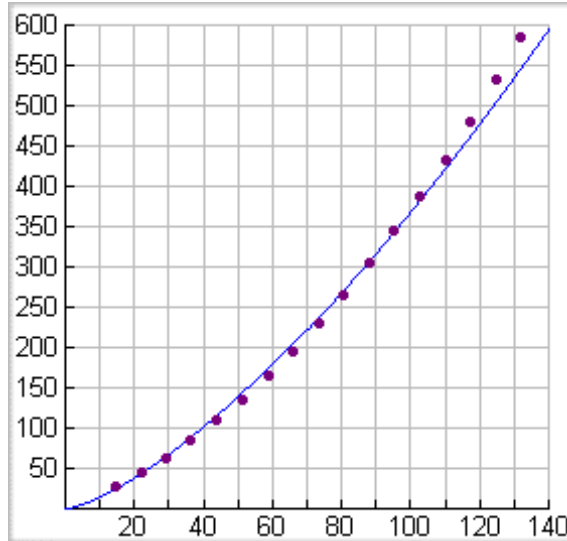
-
6. Click Calculate to calculate the results and display the Calculation Results tab.
 7. Click the Save Results button. TI InterActive! stores the results in variables, closes the Statistics Calculation tool, and displays the selected results in the document.

Power Regression
 $\text{regEQ}(x) = .536773x^{1.41856}$

Displaying the plotted data with the equation

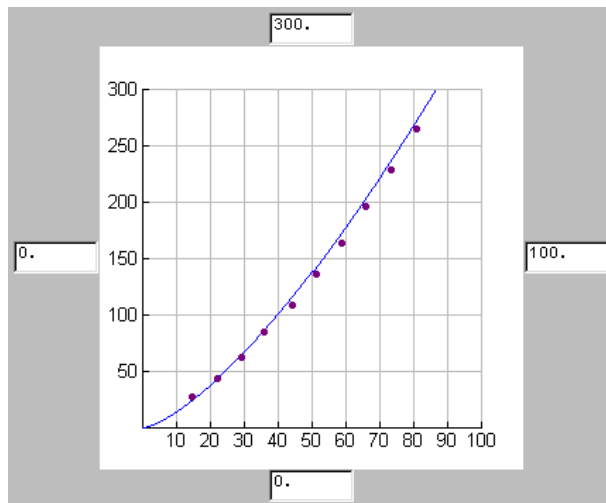
1. With the cursor positioned at the end of the regression results, press Enter on the computer keyboard, type the heading **Graphed regression equation:**, and then press Enter again.
2. On the TI InterActive! toolbar, click the Scatter Plot button .
3. Click the Stat Plots tab.
4. In the uppermost text box, type **FeetperSecond**.
5. In the second text box, type **TotalDistance**.
6. Press Enter on the computer keyboard. (If it is not already checked, click the check box at the left to select this plot.)
7. Select the f(x) tab.
8. In the uppermost text box of the f(x) tab, type **regEQ(x)** and then press Enter on the computer keyboard. TI InterActive! graphs the regression equation.

9. Click the Zoom Statistics button  in the Graph window to adjust the viewing boundaries.




10. Format the graph to show the relevant portion of the function. (You may note that the function continues in the third quadrant, but only positive values are relevant.)

TIP: To format this graph, click Format. Change Xmin to 0, Xmax to 100, Ymin to 0, Ymax to 300, Xscale to 10, and Yscale to 50.



TIP: You can double-click the Stat Regression results any time to explore a different regression.

11. Click the Save To Document button  to close the Graph window and insert the graph in the document. You can visually compare the plotted data and the graphed regression equation.

Exercise 6: Reviewing Miscellaneous Functions

TI InterActive!™ includes several features that can enhance the quality of the report or assignment. In this exercise, you insert images, set special features for these images, and print a TI InterActive! document.

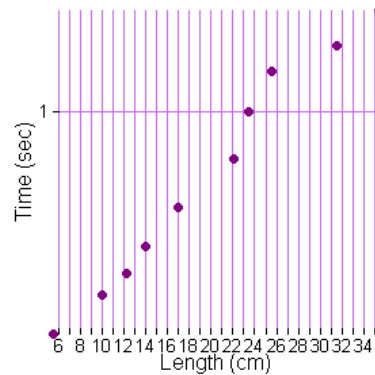
Homework: Math period 6

Reporting data

Student name: _____

My assignment was to show the mathematical relationship between the length of a pendulum and its period. (A period is one complete swing of the pendulum.) I used string and beads to construct the pendulum. I tacked the pendulum to the ceiling to perform my tests. I recorded the pendulum's period for each of 10 string lengths. Length (in centimeters): 5.5, 10.0, 12.2, 14.0, 17.0, 22.1, 23.4, 25.5, 31.6, 35.4. Time (in seconds): 0.49, 0.58, 0.63, 0.69, 0.78, 0.89, 1.00, 1.09, 1.15, 1.23. The scatter plot is a display of the time-versus-length data.

L1	L2
5.5	0.49
10	0.58
12.2	0.63
14	0.69
17	0.78
22.1	0.89
23.4	1
25.5	1.09
31.6	1.15
35.4	1.23




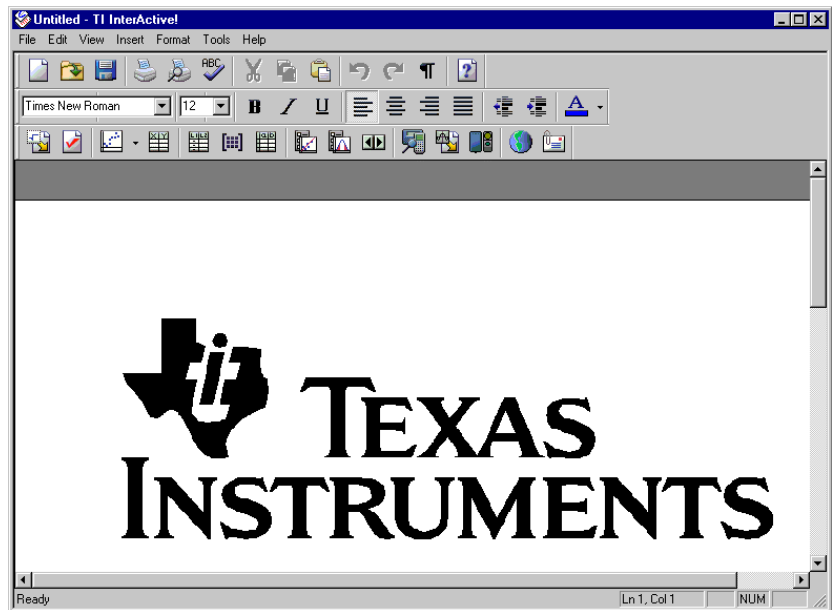
This exercise shows you how to:

- Insert an image into a TI InterActive! document.
- Set text-wrapping options for an inserted object.
- Set your preferences for TI InterActive!
- Print a TI InterActive! document.

Inserting images in TI InterActive!

Inserting images into a TI InterActive! document is similar to inserting images into most word processors. TI InterActive! can accommodate .bmp, .eps, .gif, .jpg, .tif, .wmf, and .wpg file types.

1. On the TI InterActive! toolbar, click the New button  to start a new, blank document.
2. On the TI InterActive! menu bar, click Insert ► Picture. If necessary, navigate to the folder containing the image you want to insert.
3. Click the file name, and then click the Open button to insert the image in the document.



If you prefer, you can resize the images you insert in TI InterActive! documents.

Resizing images in TI InterActive!

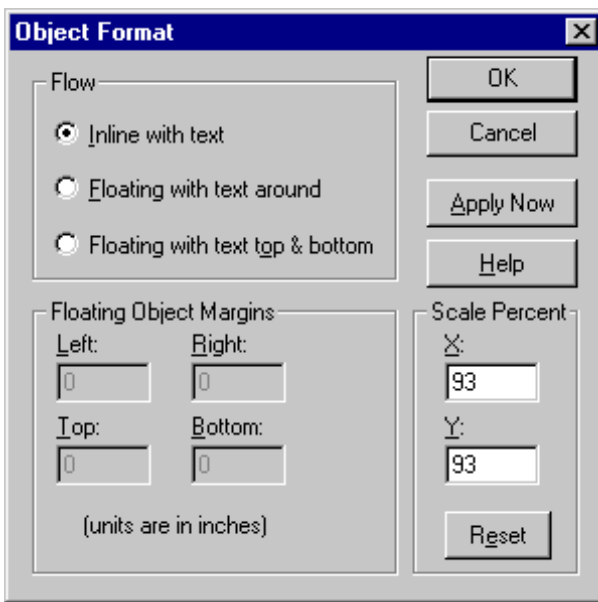
Resizing images in a TI InterActive! document is similar to resizing images in most word processors. To resize an image, click the image and either:

- Drag the selection handles.
- or –
- Click Edit ► Object ► Format.

Setting text-wrapping options for inserted objects

To modify the position of text associated with an inserted object, use TI InterActive!'s text-wrapping features.

1. Click to the right of the picture that you inserted earlier, and press Enter on the computer keyboard. Type **This is a test of TI InterActive!'s text-wrapping options**, and press Enter.
2. Click the picture. A selection box appears around the picture to show that it is selected.
3. On the TI InterActive! menu bar, click Edit ► Object ► Format. The Object Format dialog box is displayed with its default values.



4. In the box labeled Flow, select the desired option, and click OK.

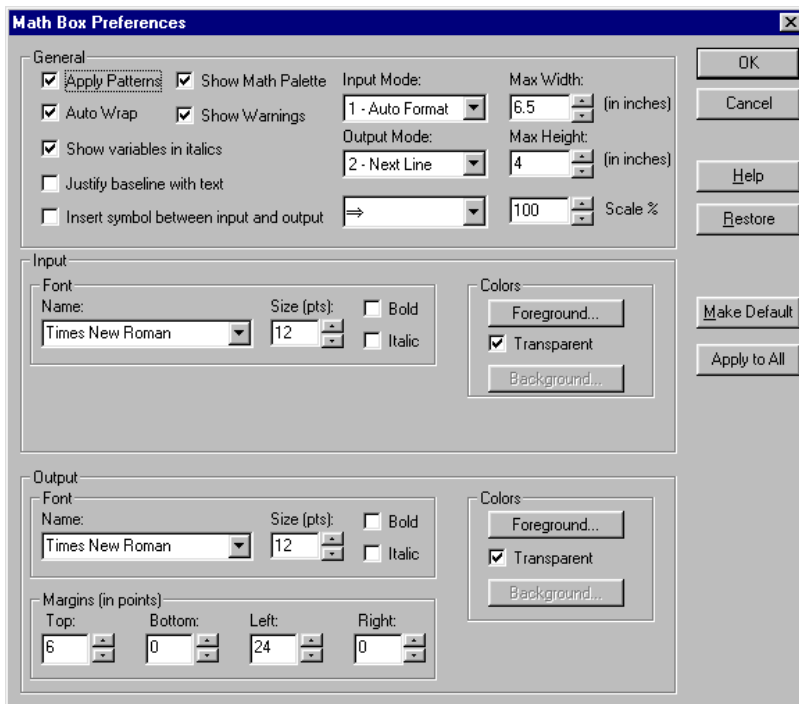
NOTE: See page 54 for more information about using floating objects.

If you select one of the two “Floating...” options, the distance between the image and the text can be modified using the Floating Object Margins option. Also, scaling percentages can be applied when selecting either of the “Floating...” options.

Setting preferences

The Edit ► Preferences menu provides customization options for: Document, Math Box, Graph, List Editor, Table, Web Browser, Screen Capture, and Select Device.

For example, Math Box preferences let you specify Math Box height and width, input and output mode, margins and scaling, and the font type, size, or color of the input and output.



Printing documents in TI InterActive!

Printing in TI InterActive! is similar to most word processors. You can also set several printing options. For example:

1. On the TI InterActive! menu bar, click File ► Print.
2. Click the Properties button on the Print window.
3. In the Orientation box, you can choose to print pages vertically (portrait) or horizontally (landscape).

Essential Skills for Using TI InterActive!

This section includes a list of some things that can help you use TI InterActive!™ effectively.

Definitions

- **Document** — A TI InterActive! file that contains text, data, and interactive objects that can be saved, printed, or e-mailed.
- **Object** — A specific non-text item in the document that can be moved, edited, and updated. TI InterActive! objects include the Math Box, Graph, List Editor, Spreadsheet, etc.
- **Interactive objects** — Refers to the fact that most TI InterActive! objects share data so that updating one object may automatically cause subsequent objects to be updated.
- **Integrated math system** — The math system contains key tools and capabilities that work together dynamically so that the use of multiple programs may be unnecessary.

Inserting objects

A TI InterActive! document is composed of text and objects. Each object has unique functionality. For example, to perform a calculation, select Insert ► Math Box and enter an expression into the object (Math Box) that is created. Press the Enter key, which in this case, causes the expression to be evaluated.

Use the Insert menu or the TI InterActive! toolbar to insert objects into the document. A description of each object follows.

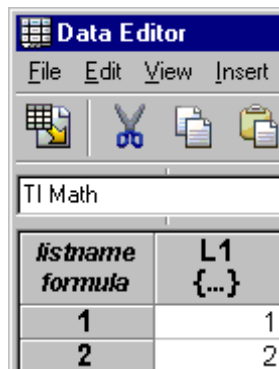
Object	Description
Math Box	Perform calculations and evaluate expressions.
Graph	Graph rectangular, polar, and parametric functions; plot lists.
Table	Perform numerical evaluations of functions.
List	Create and edit lists (similar to lists on the device).
Matrix	Create and edit matrices.
Spreadsheet	Compute values in a spreadsheet.
Stat Calculation Tool	Calculate a statistics regression of a data set.
Stat Tests & Intervals Tool	Perform statistical tests and intervals.
Slider Control	Insert a slider that lets you change variable values.
Hyperlink	Insert a hyperlink to a Web address.
Page Break	Insert a page break.
Math Section Break	Reset all variables for the section following the break.
Screen Capture	Insert a snapshot from an attached, supported device such as a TI-83 or TI-83 Plus.
Picture	Insert images in various formats.
Object	Insert objects external to TI InterActive! such as Microsoft® Excel, video clips, etc.

Saving objects

Objects can be saved to the document to preserve their characteristics at any time. In this way, the saved information may be modified and updated to facilitate mathematical exploration. Some objects, such as the Math Box, are automatically saved to the document upon entering information. Other objects, such as the graph and list editors, require you to specifically save the information to the document.

Look for the Save To Document item under the File menu in each component. A corresponding icon is also available. The icon is usually positioned in the leftmost position of the toolbar for the various object editors.

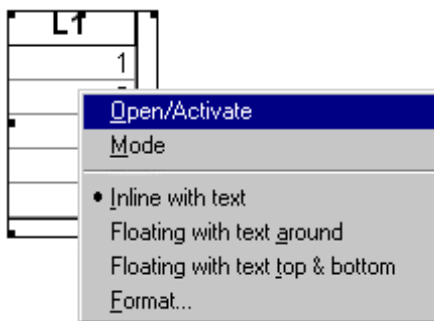
For example,  is the Save To Document icon for the List Editor.



Opening objects

You might want to open an object so you can view or change the contents of the object. There are three ways to open an object that has been saved to a document.

- Using the mouse, simply point to the object and then double click.
- Using the mouse, point to the object and single click. Then go to the menu and select Edit ► Object ► Open/Activate.
- Using the mouse, point to the object and then right click. A menu appears as shown below. Click on Open/Activate.



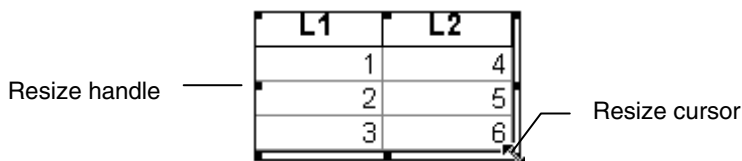
Resizing objects

There are two ways to resize an object.

- To resize an object that has been saved to the document, select the object with a right mouse click, select Format from the right-click menu, and change the resize settings as desired.
- Select the object and drag the resize handles to an appropriate size.

TIP: This method is especially useful for resizing list and spreadsheet objects.

Resize handles are the small squares located on the selection outline. In the example below, the diagonal arrow cursor next to the **6** indicates that the list object can be resized by dragging the mouse.



Moving objects

To move an object, point to the object with your mouse and drag it to the new location. If the object does not drop at the location you want, it may be because there isn't an empty space or sufficient room. Since objects are inserted into the document as characters, there must be an empty space with sufficient room in which to place the object. "Empty spaces" are found next to existing objects or text and on empty lines.

TIP: Use View ► Nonprinting Characters, which displays line breaks as ¶, to view the lines in a document.

Sometimes it may appear that there is an empty line at the end of the document when there is not.

Deleting objects

There are two ways to delete objects that have been inserted in a TI InterActive! document.

- Point to the object using the mouse and single click. Then press the Delete key on the computer keyboard.
- For objects that have been inserted as inline-with-text objects (see next page), position the cursor to the right of the object and press the Backspace key on the computer keyboard.

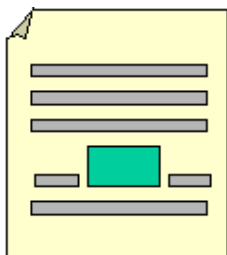
Using floating objects

TIP: The Edit ► Object menu is also available via a right-mouse-click on the object.

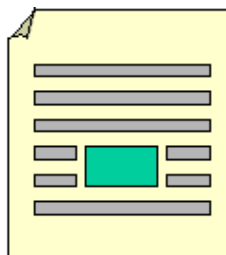
The default for TI InterActive! is to create objects as inline-with-text objects. To place objects precisely in the document, convert them to floating objects.

To convert objects to floating objects, select the object and then select one of the Edit ► Object menu items.

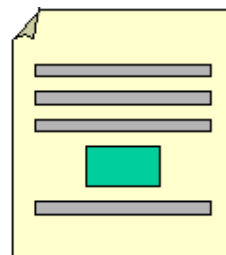
- **Inline with text** — Causes the object to float in line with the text.
- **Floating with text around** — Causes the object to float on the page with text or other inline objects flowing around it.
- **Floating with text top & bottom** — Causes the object to float on the page with text or another inline object above and below it.



Inline with text



Floating with text around



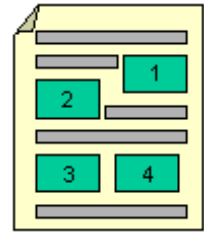
Floating with text top & bottom

To move a floating object, drag the object with the mouse to the desired location. For additional control, select the object and use the arrow keys on the computer keyboard to position the object on the page.

If two or more objects are floating objects, they can be placed adjacent to each other or overlapping. Once an object is changed to floating and placed in the document, it does not change its position unless you move it.

Math updates

The TI InterActive! math system is dynamic and performs updates of all variables whenever a new object is defined, modified, or moved. This feature enables new ways in which to illustrate ideas and concepts. It may also require some experience in order to know what to expect.



Each object has an evaluation point that determines when its information is available for evaluation by the math system. Evaluations occur in a specific order.

- Objects whose evaluation point appears above or to the left of other objects' evaluation points are evaluated first.
- Subsequent objects are evaluated in this spatial order until all objects in the document are evaluated.

This evaluation occurs many times during the course of creating or editing a document. The example below illustrates the importance of the math evaluation order.

Document 1

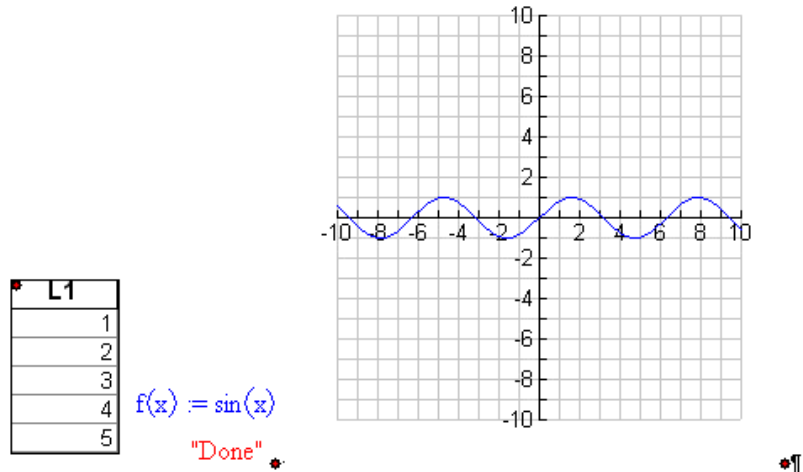
```
Define a = 20  Define a = 30
      "Done"      "Done"
factor(a)
      2·3·5
```

Document 2

```
Define a = 30  Define a = 20
      "Done"      "Done"
factor(a)
      22·5
```

In **Document 1**, **a** is defined as **20** and **30** in consecutive Math Boxes on the same line. In **Document 2**, the definition order is reversed, and **a** is defined as **30** and **20**, again in consecutive Math Boxes on the same line. The position of the second Math Box is significant to the evaluation of the third Math Box, which contains the expression **factor(a)**. In the first document, **a** is equal to **30** when the third Math Box is evaluated. In the second document, **a** is equal to **20** when the third Math Box is evaluated.

An additional aspect of math updates is the location of the evaluation points for each object. For all objects (except the Math Box, graph, and matrix), the evaluation point is located at the top-left corner of the object. For the Math Box, graph, and matrix, the evaluation point is located at the bottom-right corner. To view the evaluation points in a document, select the View ► Nonprinting Characters menu option. A small dot displayed on the object indicates its evaluation point.




Setting preferences

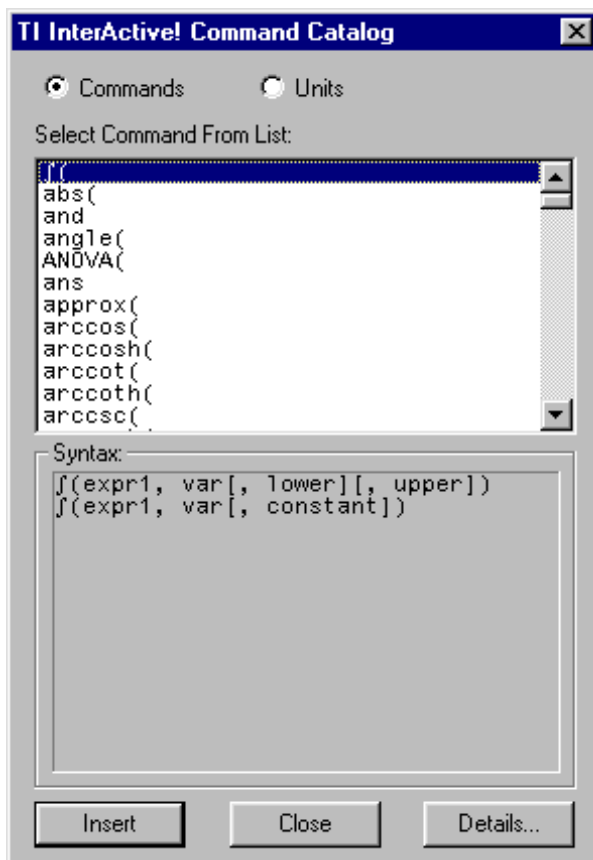
It is important to review the default preferences when you first install TI InterActive! This will help you understand the results that you see. Go to the Edit ► Preferences menu to select preferences for the following items.

- Document
- Math Box
- Graph
- List Editor
- Table
- Web Browser
- Screen Capture
- Select Device

Using the catalog

The Catalog, found in the Math Palette, includes information and examples for every TI InterActive! math command.

To open it, select the Catalog icon , or select Tools ► Command Catalog on the Math Palette. Click the Details button to see examples for the selected command.



Where Do I Go from Here?

Now that you have the skills for building TI InterActive!™ documents, you might want to explore more features. The built-in documentation, which is accessible through the Help menu and various Help buttons, can help you master the TI InterActive! software.

To find out more about:	Look here in online Help:
Using the math, algebra, and statistics functions not covered in this book	<i>Functions & Instructions</i>
Graphing parametric and polar equations	<i>Graphing: Creating a graph: Defining functions for graphing</i>
Creating and manipulating matrices	<i>Matrices</i>
Performing spreadsheet operations	<i>Spreadsheets</i>
Capturing a calculator's screen or transferring data between TI InterActive! and a connected calculator	<i>Linking to a Calculator or Data-Collection Device</i>
Collecting samples from a connected CBL™, CBL 2™, CBR™, or Vernier LabPro® data-collection device	<i>Linking to a Calculator or Data-Collection Device; Collecting and plotting Quick Data lists</i>
Extracting data from a Web page	<i>Web Browser: Extracting data from a web page</i>
Inserting a link to a Web page into a TI InterActive! document	<i>Web Browser: Inserting a hyperlink in a document</i>

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