Microzine®

A Computer Learning Library on a Disk™

Featuring:

History Mystery
A chase through time

Letter Writer
A writing utility

ScholastiCalc
An electronic spreadsheet

Rose & Calumny
Spreadsheet puzzles

LEO PANDO

Scholastic
The Most Trusted Name in Learning®

FUN SKILLS SERIES

Ages 9 and up

Microzine ®

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Scholastic Inc.   New York Toronto London Auckland Sydney

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World History Museum. Can you find it? Ghosts from
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friends, businesses, or your representatives in
Washington, D.C. This utility will let you write, edit and print
your own letters.

If you buy more books and fewer movie tickets, how much
money will you have left at the end of the month? Let this
electronic spreadsheet help you calculate the answer.

The valiant Rose has been imprisoned by Calumny, an
evil witch. Only your skill with your magical spreadsheet
can rescue her. Solve each puzzle, and you'll be a hero.

Disk drives, data disks, and printers.

GETTING STARTED

Read this handbook for clear instructions on how to use each *Microzine* feature.

Equipment You Need
1. TV or monitor
2. 48K Apple® IIPlus, *IIe*, or IIc
3. Disk drive

Apple is a registered trademark of Apple Computer, Inc.

How to Load *Microzine*
1. Open the disk drive door.
2. Hold the disk with the label end facing you.
3. Insert the disk slowly with the label facing up.
4. Close the drive door.
5. Turn on the computer and monitor (or TV).

NOTE: Never remove or insert a disk while the disk drive's red light is on.

Using the Table of Contents
The Table of Contents is a list of programs, or features, in *Microzine*. Use this list to select the feature you want.

To get this list, follow the instructions on the opening *Microzine* screen to press any key. When the Table of Contents appears on your screen, you'll notice that the first feature is highlighted.

Use the arrow keys to highlight each feature. When the feature you want is highlighted, press **RETURN**. (If the feature you select is on the other side of the disk, you will be told to turn the disk over and press **RETURN**.)

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HISTORY MYSTERY

A Twistaplot™ Adventure

What You'll Find
You will search the rooms of the haunted Microville World History Museum for the stolen Babylonian hourglass. There are many ghosts and objects that will help you on your search.

"HISTORY MYSTERY" MAIN MENU
"History Mystery" has three functions, or things you may do. They are Read Part One, Read Part Two, and Instructions.

Helpful Hints
Make a map of the rooms as you move through the museum. Mark the position of the stairways and elevators. Mark what floors the express elevators travel to.

Also, listen to the tape in each room of the museum. Knowing historical facts will help you find the stolen hourglass.

When you enter a room, search the room before you try to get objects. You never know when a ghost will pop up with a useful object.

If you find a museum room blocked by an evil ghost or by Winsome Slugg, try going up to the next floor, then use the down express elevator or a stairway to reach your destination.

LETTER WRITER

What You'll Find
With "Letter Writer" you will write friendly-style letters and business-style letters. You can save, edit, and print out the letters you write.

Data Disk
To use "Letter Writer," you will need a data disk initialized by the "Computer Stuff" feature in *Microzine*. Now is the time to initialize a data disk (see page 32).

Printer
To print your letters, you will need a printer that is compatible with the Apple II Plus, *IIe* or IIc.

Microzine assumes that you do not have a printer. If you do have a printer, change the printer set-up (see page 31).

"LETTER WRITER" MAIN MENU
"Letter Writer" has five functions, or things you may do. They are Write a letter, Edit a letter, Erase a letter, Print a letter, and Correspondence Course.

Write a Letter
Choose this function to write a letter. A list of ten types of letters will appear on the screen. Each of these types of letters is either a friendly-style letter, or a business-style letter.

Friendly-Style Letter
A friendly-style letter has five parts: the heading, the greeting, the body, the complimentary close, and the signature.

Business-Style Letter
A business-style letter has six parts: the heading, the inside address, the greeting, the body, the complimentary close, and the signature.

There are ten types of letters you may choose to write. The three types of friendly-style letters are:

- Friendly letter: Choose this to write to a friend or family member.
- Thank-you letter: Choose this to thank a friend or family member.
- Invitation: Choose this to invite someone to a party.

The seven types of business-style letters are:

- Fan letter: Choose this to write to someone you admire, like an author or a movie star.
- Business letter: Choose this to write a business letter to a company.
- Consumer letter: Choose this to write to a company about a product you have bought or are interested in.
- Job Application: Choose this to write to a person or a company for a job.
- Information letter: Choose this to write to a person or company for information.
- Government letter: Choose this to write to a government official telling him or her your opinion about a current event.
- *Microzine* Fun letter: Choose this to see a list of 20 addresses you may write to.

CTRL-C for Critter
Press **CTRL-C** for information on the part of the letter that you are writing. A "window" will open on the screen and "P.S." the Mail Critter will appear. He will give you information and letter-writing tips. Press **RETURN** to continue writing your letter.

Writing A Letter
Follow these steps when writing a letter:

Write the heading of your letter by typing your home address, then the date. If you are writing a business-style letter, type the inside address. Press **RETURN** after every line.

NOTE: If you don't need the "Other Data" lines, leave them blank. The blank lines will be deleted when you begin writing the body of your letter.

Complete the greeting of your letter. The word "Dear" will appear with a blinking cursor. Type your greeting, then press **RETURN**.

The cursor will appear two lines below the greeting. You are now ready to write the body of your letter.

Moving the Cursor

Apple II Plus	Apple IIe/IIc
CTRL-K to move up	↑ to move up
CTRL-J to move down	↓ to move down
← to move left	← to move left
→ to move right	→ to move right

New Paragraph

To start a new paragraph, press **RETURN** to move the cursor to where you want to begin the new paragraph.

Each time you press **RETURN,** a small arrow will appear. The arrow means you are beginning a new line. This arrow will not appear when your letter is printed.

Letter Length
Each letter may have up to 38 characters a line, and may be approximately 50 lines long. When your letter is full, the computer will beep and tell you there is no more room (see "What to do when there is no more room in your letter," page 11).

CTRL-E to end
Press CTRL-E when you are ready to end your letter.

The computer will ask, "Are you ready to add a complimentary close to your letter? (Y/N)."

Type Y for yes to type your complimentary close, and then press **RETURN**. If you are writing a business-style letter, the computer will tell you to type your name for the signature, then press **RETURN**. Type N for no to continue writing your letter.

If your letter becomes full while writing a complimentary close, the computer will beep and tell you there is no more room. Follow the steps under "Pressing ESC while Writing a Letter, " below, to return to the body of the letter. Then follow the steps under "What to Do When There Is No More Room in Your Letter," on page 11.

Saving a Letter
When you finish your complimentary close, the computer will ask, "Do you want to save this letter? (Y/N)" Type Y for yes to save the letter. The computer will ask you to type the name of the letter, then press **RETURN**. The name can be up to 12 characters long. Type N for no to go to the "Letter Writer" Main Menu.

Pressing ESC While Writing a Letter
If you press **ESC** while writing a letter the computer will ask, "Do you want to save this letter? (Y/N)." If you type Y for yes, you can save the letter (see "Saving a Letter," above).

NOTE: If you save a letter before you have pressed CTRL-E to add a complimentary close, the computer will not automatically ask you if you want to add a complimentary close. You will have to add a complimentary close yourself when you edit that letter, see "Adding a Complimentary Close," page 12.

If you type N for no, the computer will say, "You have not saved this letter. Are you sure you want to quit? (Y/N)."

If you type Y for yes, you will return to the "Letter Writer" Main Menu.

If you type N for no, you will return to the body of the letter.

Microzine Fun Letter
If you choose *Microzine* Fun Letter from the list of letters, you will see a list of 20 addresses, from the President of the United States to Amy McKinley, the editor of *Microzine.*

The first address that will appear will be the President of the United States. Use the← or →(arrow keys) to page through the list. Press **RETURN** to choose an address. You will then type the heading of your letter.

When you have completed the heading, press **RETURN**. The *Microzine* Fun Letter address that you chose will appear as the inside address. A blinking cursor will appear next to "Dear." Complete the greeting, and then write your letter.

You may want to edit the inside address. For example, if you chose the "CBS-TV star" *Microzine* Fun Address, the words "(CBS-TV Star's Name)" will appear on the first line of the inside address. Move the cursor to the end of the the first line and delete the first line. Type the name of the CBS-TV star to whom you are writing. Then move the cursor back to the body of the letter and write your letter.

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Edit a Letter
Choose this function to edit a letter saved on a data disk.

Use the arrow keys to choose the letter you want to edit. Edit that letter the same way you did in "Write a Letter" (see page 6) with this exception: You cannot use CTRL-E to add a complimentary close. If you did not add a complimentary close in your original letter, you will have to add one yourself. (See "Adding a Complimentary Close," page 12.)

If your letter becomes full while you are editing, the computer will tell you there is no more room. (See "What to Do When There Is No More Room in Your Letter," below.)

When the letter is edited, press **ESC**. The computer will ask, "Do you want to save this letter? (Y/N)." Type Y for yes or N for no.

If you type Y, the name of the letter will appear. If you want to save your edited letter under the original name, press **RETURN**.

The computer will ask if you're sure you want to replace the original letter with the edited letter. Type Y to replace it. If you want to change the name of the edited letter, move the cursor back to the first letter of the original name. Type the new name, and then press **RETURN**.

What To Do When There Is No More Room in Your Letter
When the computer displays the "There is no more room in your letter" message, it means you cannot add any more text or use CTRL-E to add a complimentary close.

Follow these steps:

1. Delete at least four lines of text in your letter. Then press **ESC** and save the letter.
2. Choose the "Edit a Letter" function, and choose this letter.
3. You can now add up to four lines of text before you will run out of room in your letter.
4. If you didn't add a complimentary close when you first received the "There is no more room in your letter" message, you will have to add one yourself (see "Adding a Complimentary Close," below).

Adding a Complimentary Close

If you pressed ESC and saved a letter before you pressed CTRL-E, or if you received the "There is no more room in your letter" message before you pressed CTRL-E, you will have to add a complimentary close yourself when you edit that letter.

Follow these rules when adding a complimentary close yourself:

1. Move the cursor to the end of the last sentence of the last paragraph, then press **RETURN** three times. The cursor will be three lines below the last paragraph of your letter.
2. Make sure the cursor is all the way over to the left side of the screen, then press the **SPACE BAR** 13 times. Now type your complimentary close.
3. If you are writing a Friendly-Style letter, press **ESC** and save your letter.

   If you are writing a Business-Style letter, press **RETURN** four times. Then press the **SPACE BAR** 13 times again. The cursor will be four lines below the first character of the complimentary close. Now type your name. Then press **ESC** and save your letter.

Erase a Letter

Choose this function to erase a letter saved on a data disk. Use the arrow keys to choose the letter you want to erase. The computer will ask if you are sure you want to erase the letter. Type Y for yes or N for no.

Print a Letter

Choose this function to print a letter saved on a data disk. Use the arrow keys to choose the letter you want to print.

If your letter is more than one page long the computer will ask, "Should the printer pause at the end of each page? (Y/N)." If you are printing your letter on single sheets of paper, type Y for yes. If you are printing on computer-form paper, type N for no.

The computer will then ask, "Is your printer turned on and your paper aligned?" Type Y or N.

The computer will then tell you to press **RETURN** to start printing.

Press **ESC** if you want to stop the printer before the letter is finished.

If you told the computer to pause after each page, when each page is finished the computer will tell you to insert a new piece of paper, and press **RETURN** to continue printing.

When your letter is finished, the computer will ask if you want to print another copy. Type Y or N.

Correspondence Course

Choose this function to learn more information about how to write letters. The computer will ask you to type your home address. "P.S." will then write you a letter that will appear on your screen.

SCHOLASTICALC

What You'll Find
"ScholastiCalc" is a simple electronic spreadsheet. It can calculate numbers or formulas, and help you make predictions or "forecast" what will happen if you change any of the numbers in the spreadsheet. You can save, edit, and print your spreadsheets.

Data Disk
To use "ScholastiCalc" you will need a data disk initialized by the "Computer Stuff" feature in *Microzine*. Now is the time to initialize a data disk (see page 32).

NOTE: You may want to use your data disk only for "ScholastiCalc." Then, if you expand your spreadsheets, there is less chance you will run out of room on the data disk.

Printer
To print your "ScholastiCalc" spreadsheets, you'll need a printer that is compatible with the Apple II Plus, *IIe*, or IIc.

"SCHOLASTICALC" MAIN MENU
"ScholastiCalc" has five functions, or things you may do. They are Make a Spreadsheet, Edit a Spreadsheet, Erase a Spreadsheet, Print a Spreadsheet, and Introduction.

Make a Spreadsheet
Choose this function from the Main Menu to make a spreadsheet. A blank spreadsheet will appear.

Row
A row is a line of cells (see "Cell" on page 15) that goes across the spreadsheet horizontally. You may use up to 16 rows in your spreadsheet. The rows are numbered from 1 to 16.

Column

A column is a line of cells (see "Cell" on page 15) that goes across the spreadsheet vertically. You may use up to 26 columns in your spreadsheet. The columns are labeled from A to Z.

Cell

A cell is the intersection of a row and a column. For example, in the spreadsheet above, the cursor (see "CURSOR" below) is on cell A1. The "A" means that the cell is in column A. The "1" means that the cell is in row 1. The cells are always labeled by column and row.

Options

The options, or things you may do to one cell, or to the entire spreadsheet, are listed at the bottom of the screen.

Cursor

The cursor is the highlighted box on the screen. Move it to any cell on the spreadsheet to enter, edit, erase, or duplicate information.

Moving the Cursor

Use these keys to move the cursor on the spreadsheet. You may also use the "G(oto)" option to move the cursor (see "G(o to)," page 18).

Apple II Plus	Apple IIe/IIc
I to move up	↑ to move up
M to move down	↓ to move down
J, or ← to move left	← to move left
K, or → to move right	→ to move right

Correcting Mistakes

Use the ← (left arrow) key, or the DELETE key (on the IIe and IIc) to correct typing mistakes.

E(dit)

Type E to enter or edit information in a cell. A "?" will appear in the upper-left corner of the spreadsheet.

You may enter a label, number, or formula in the cell (see "LABEL", "NUMBER", or "FORMULA", below). The information you type in will appear in front of the "?."

If you are editing information that is already in a cell, that information will appear automatically in front of the "?."

Press **RETURN** when you are done entering or editing the information in a cell.

Label

A label is any information that does not begin with the digits 0-9, or the characters +, -, ., (, or @. For example, a label could be the words "January," "Total," or "Clothes." A label could also be a letter, like "A," or a combination of letters, numbers, and characters, like "Jan.1st."

A label may be up to 39 characters long. If the label is longer than 8 characters, it will overwrite the next column(s). You may enter a label in the overwritten column. That label will be displayed, and the first label will only show its first 8 characters, however, if you move the cursor over the first label, the entire label will be displayed in the upper left corner of the screen. "ScholastiCalc" will "compute" or calculate a label as zero (0) (see "C(ompute)," page 18).

Number

A number is one or more digits. The digits "9", "-9" and ".09" are all numbers. "ScholastiCalc" will "compute" or calculate a number (see "C(ompute)," page 18).

Formula

A formula is a mathematical equation that begins with the character +, -, ., (, or @.

For example, if you wanted to compute all of the numbers in a column, you would enter a formula, or equation, to have "ScholastiCalc" do the computing for you.

You may enter a formula to do one or more of the following operations: add, subtract, multiply, and divide. You may also enter formulas to find the absolute value, integer part, square root, and exponential value of a number (see "Mathematical Operations and Features," page 20).

You must begin some formulas with the "@" sign to tell "ScholastiCalc" that you are entering a formula (see "ADD," page 20, and "MULTIPLY," page 22).

"ScholastiCalc" will "compute" or calculate a formula (see "C(ompute)," page 18).

!!!!!!!!
Each cell can display up to 8 characters. If you enter a number that is longer than 8 characters, or if the result of a formula is longer than 8 characters, the program will display 8 exclamation marks.

To see the entire number, move the cursor over the exclamation marks. The number will appear in the upper-left corner of the screen.

If you enter a label or formula that is longer than 8 characters, the label or formula will over-write the column(s) next to it (see "LABEL," page 16).

D(uplicate)
Type D to duplicate, or copy, information from one cell to another.

For example, if you wanted to duplicate the information from cell A2 to D4, you would move the cursor to cell A2. Type D to duplicate.

The program will ask: "Enter column (A-Z)." Type D (the letter of the column where you want the information duplicated), then press **RETURN**.

The program will ask: "Enter row (1-16)." Type 4 (the number of the row where you want the information duplicated), then press **RETURN**.

The information in cell A2 will be duplicated in cell D4. The cursor will also move to the cell where the information was duplicated.

S(ave)
Type S to save your spreadsheet.

The program will ask you to type in the name of the spread-sheet. The name may be up to 20 characters long. You cannot use numbers in the name of your spreadsheet.

Type in the name of the spreadsheet, then press **RETURN**. The program will ask you to put an initialized data disk in the drive. Put the data disk in the drive, then press **RETURN**.

Your spreadsheet will be saved on the data disk. The program will display the spreadsheet on the screen again. You may continue to work on your spreadsheet.

C(ompute)
Type C to compute, or calculate, the numbers and formulas on your spreadsheet. You may type C at any time to update the information in the cells.

The word "Calculating" will flash in the upper-left corner of the screen. When "ScholastiCalc" has finished computing the numbers and formulas, the newly-computed information in each cell will appear on the spreadsheet.

G(oto)
Type G to move the cursor to ("goto") any cell on the spreadsheet.

The program will ask: "Enter column (A-Z)." Type the letter of the column where you want to move the cursor, then press **RETURN**. The program will ask: "Enter row (1-16)." Type the number of the row where you want to move the cursor, then press **RETURN**.

The cursor will move to that cell.

B(lank)
Type B to erase, or blank out, the information in a cell.

Move the cursor to the cell. When you type B, the program will ask, "Erase this cell? Y/N." Type Y for yes, or N for no, then press **RETURN**.

F(ormat)
Type F to change the format (number of decimal places) you wish to have displayed in a cell.

The program will ask: "How many decimal places? (0-6)?." Type a number from 0-6, then press **RETURN**.

For example, if you moved the cursor to a cell with the number "24.25" in it, you could change that number to display three decimal places. The new number in the cell would be "24.250."

"ScholastiCalc" will always display numbers with two decimal places (like 24.00) until you change the format for the cell.

NOTE: If you add enough decimal places so that the number is longer than 8 characters (for example, 12345.00), the number will be displayed as exclamation marks ("!") in the cell. (see "!!!!!!!!", page 17).

Q(uit)
Type Q to quit using a spreadsheet. If you have not saved your spreadsheet, the program will say: "You have not saved this spreadsheet. Are you sure you want to quit? Y/N."

Type Y to quit. The program will tell you to put the *Microzine* disk in the drive, and then press **RETURN**. The "ScholastiCalc" Main Menu will appear on the screen. Type N to continue using the spreadsheet, then press **RETURN**.

H(elp)
Type H to see a list of the options you may use when making or editing a spreadsheet.

Mathematical Operations and Features
"ScholastiCalc" can perform several mathematical operations. It can add, subtract, multiply, and divide numbers. It can also find the absolute value, integer part, square root, and exponential value of numbers.

Add
Follow these rules to add numbers with "ScholastiCalc":

• *To add numbers in one cell*: Move the cursor to the cell where you want to add numbers. Type a number, then a "+" sign, then the other number(s) you want to add, then press **RETURN**. For example: 4+2 or 4+2+3.

"ScholastiCalc" will add the numbers and display the answer in the cell.

• *To enter a formula to add numbers in one column*: Move the cursor to the cell where you want the total displayed. Type the "@" sign first. That tells "ScholastiCalc" that you are going to enter a formula.

Then type the word "sum," and the formula in parentheses. To add the numbers in cells A2, A3, and A4, and put the answer in cell A5, you would:

1. Move the cursor to cell A5
2. Type E to enter the formula
3. Type @sum(A2..A4)
4. Press **RETURN**

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The formula will add the numbers in cells A2 through A4, and print the answer in cell A5 (the cell where the cursor was positioned).

- *To enter a formula to add numbers in one row:* Move the cursor to the cell where you want the total displayed. Type the "@" sign first. That tells "ScholastiCalc" that you are going to enter a formula.

Then type the word "sum," and the formula in parentheses.

To add the numbers in row 3, in columns A, B, and C, and put the answer in cell D3, you would:

1. Move the cursor to cell D3
2. Type E to enter the formula
3. Type @sum(A3..C3)
4. Press **RETURN**

The formula will add the numbers in columns A, B, and C, in row 3, and print the answer in cell D3 (the cell where the cursor was positioned).

If you change the information in a cell that would affect other cells, you must type C to re-calculate the numbers and formulas in the spreadsheet (see "Re-calculating," page 23).

Subtract
Follow these rules to subtract numbers with "ScholastiCalc":

- *To subtract numbers in one cell:* Move the cursor to the cell where you want to subtract numbers. Type a number, then a "−" sign, then the other number(s) you want to subtract. Then press **RETURN**, (for example 4−2 or 4−2−3).

"ScholastiCalc" will subtract the number(s) and display the answer in the cell.

- *To enter a formula to subtract numbers in several cells:* Move the cursor to the cell where you want the total displayed. Type the column and row of the first cell, then a "-" sign, then the other column and row number of the other cell(s) you want to subtract. Then press **RETURN**, (for example A2–A4 or A2–B4–C6).

The formula A2–A4 will subtract the number in cell A2 from the number in A4, and print the answer in the cell where the cursor was positioned.

If you change the information in a cell that would affect other cells, you must type C to re–calculate the numbers and formulas in the spreadsheet (see "Re-calculating," page 23).

Multiply
Follow these rules to multiply numbers with "ScholastiCalc."

- *To multiply numbers in one cell:* Move the cursor to the cell where you want to multiply numbers. Type a number, then a "*" sign, then the other number(s) you want to multiply. Then press **RETURN**, (for example 4*2 or 4*2*3).

"ScholastiCalc" will multiply the numbers and display the answer in the cell.

Divide
Follow these rules to divide numbers with "ScholastiCalc":

- *To divide numbers in one cell* : Move the cursor to the cell where you want to divide numbers. Type a number, then a "/" sign, then the other number(s) you want to divide. Then press **RETURN**, (for example 4/2 or 16/4/2).

"ScholastiCalc" will divide the numbers and display the answer in the cell.

- *To enter a formula to divide numbers in several cells:*
Move the cursor to the cell where you want the total displayed. Type the column and row of the first cell, then a "/" sign, then the other column and row number of the other cell(s) you want to divide. Then press **RETURN**, (for example A2/A4 or A2/B4/C6).

The formula A2/A4 will divide the number in cell A4 into the number in A2, and display the answer in the cell where the cursor was positioned.

If you change the information in a cell that would affect other cells, you must type C to re-calculate the numbers and formulas in the spreadsheet (see "Re-calculating," below).

Re-calculating
If you change the information in a cell that would affect other cells, you must type C to re-calculate the numbers and formulas in the spreadsheet.

For example, enter the formula "@sum(A2..A4)" in cell A5. This formula will add the numbers in the cells in column A. Type C to compute. The answer will be displayed in cell A5.

If you changed the number in cell A3, the number in cell A5 (the sum) would be wrong.

To correct this, you would type C to re-calculate the numbers.

Absolute Value
The absolute value of a number is the distance the number is from zero on a number line.
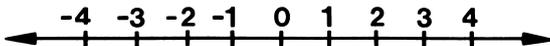
For example, the number 3 is 3 units from zero on a number line. The number -3 is also three units from zero on a number line. The absolute value of both 3 and -3 is 3. To find the absolute value of numbers with "ScholastiCalc," move the cursor to the cell where you want the absolute value displayed. Type the "@" sign first. That tells"ScholastiCalc" that you are going to enter a formula.

Type the word ABS and the number inside parentheses, then press **RETURN.**

For example, if you wanted to find the absolute value of the number -2, you would type "@ABS(-2)".

If you wanted to find the absolute value of the number in cell A2, you would type "@ABS(A2)".

Finding the absolute value of a number can be very useful. If you wanted to learn the distance, or spread, between two numbers, you would want the absolute value of the distance.

For example, if you wanted to know the distance, or spread, between the numbers 16 and 1,606, you would subtract those numbers. The answer would be -1590, but the distance can't be a negative number. By using absolute value, "ScholastiCalc" would tell you that the distance was 1590.

Integer Part
An integer is a whole number, such as 12 or -2. The number 12.2 is not an integer, because of the decimal.

The integer part of a number is the part that is an integer. For example, the integer part of 12.2 is 12, because 12 is an integer.

To find the integer part of numbers with "ScholastiCalc," move the cursor to the cell where you want the integer part of the number displayed. Type the "@" first. That tells "ScholastiCalc" that you are going to enter a formula.

Type the word INT, and the number inside parentheses. Then press **RETURN**.

For example, if you wanted to find the integer part of the number 123.43, you would type "@INT(123.43)."

If you wanted to find the integer part of the number in cell A2, you would type "@INT(A2)."

Finding the integer part of a number can be very helpful. If you wanted to calculate numbers, and were only interested in seeing numbers that were rounded-off by removing any decimal places, you would want to find the integer part of the numbers.

For example, if you wanted to divide 143 by 16, "ScholastiCalc" would divide the numbers for you, and tell you that the answer is 8.9375. If you wanted the number to be rounded-off, you would ask for the integer part of the answer. "ScholastiCalc" would then tell you that the answer is 8.

Using a spreadsheet can make these types of calculations easier for you.

Square Root
A square root is a factor of a number that, when multiplied by itself, gives the number. For example, the square root of 16 is 4, because 4 x 4 = 16.

Follow these rules to find the square root of a number with "ScholastiCalc."

Type the "@" sign first. That tells "ScholastiCalc" that you are going to enter a formula.

Then type the word sqrt (for square root), and the number in parentheses.

For example, to find the square root of 144, you would:

1. Move the cursor to the cell where you want the square root of 144 to appear
2. Type E to enter the formula
3. Type @sqrt(144)
4. Press **RETURN**

The answer will appear in the cell.

Exponents
An exponent is a number that appears above and to the right of a number to indicate how many times the first number is to be multiplied by itself. For example, the exponent 2 next to the 3^2 means that the number 3 is to be multiplied by itself two times (3 x 3).

Follow these rules to find the exponential value of numbers with "ScholastiCalc:"

Type a number, then a "^" sign, then the exponent. For example, to compute 5 to the 7th power, you would:

1. Move the cursor to the cell where you want the answer to appear
2. Type E to enter the formula
3. Type 5^7
4. Press **RETURN**. The answer will appear in the cell.

Edit a Spreadsheet
Choose this function to edit a spreadsheet saved on a data disk. The program will tell you to insert a data disk in the drive, and then press **RETURN**.

Use the arrow keys to choose the spreadsheet you want to edit.

Edit the spreadsheet the way you did in "Make a Spreadsheet" (see "Make a Spreadsheet," page 14).

Erase a Spreadsheet

Choose this function to erase a spreadsheet saved on a data disk. The program will tell you to insert a data disk in the drive, and then press **RETURN**.

Use the arrow keys to choose the spreadsheet you want to erase.

IMPORTANT: The program will not ask you if you are sure you want to erase the spreadsheet. If you choose a spreadsheet to erase, then press RETURN, the spreadsheet will be permanently erased from your data disk.

Print a Spreadsheet

Choose this function to print a spreadsheet saved on a data disk.

If you have not "told" the *Microzine* disk that you have a printer, the program will say "There is no printer to print with!" Choose the "Computer Stuff" feature from the *Microzine* Table of Contents, then choose Change disk drive/printer setup and follow the instructions.

If you have "told" the *Microzine* disk that you have a printer, the program will tell you to insert a data disk in the drive, and then press **RETURN**.

Use the arrow keys to choose the spreadsheet you want to print.

The program will say "Please make sure that your printer is on." Turn on your printer. Then the program will ask: "Print spreadsheet values ('v') or formulas ('f')?"

Type V, then press **RETURN** to print your spreadsheet with the values (numbers) displayed.

Type F, then press **RETURN** to print your spreadsheet with the formulas displayed.

The spreadsheet will print out only the amount of the spreadsheet that you have filled in. For example, if the last cell in which you entered information was cell G3, the spreadsheet will stop printing when it prints the value or formula in cell G3. The spreadsheet will print out in "pieces" horizontally across the page, as follows:

Columns A-H
Columns I-P
Columns Q-X
Columns Y and Z

Press **ESC** if you want to stop the printer before the spreadsheet is finished.

Syntax Error
If you make a mistake when entering information in a cell, the computer will beep and display this message: CALCULATOR: SYNTAX ERROR. PRESS RETURN TO CONTINUE.

Press **RETURN**, and look carefully at what you typed in. Read "Mathematical Operations and Features," on page 20, for information on how to enter formulas, and information into cells.

Introduction
Choose this function to learn more about "ScholastiCalc."

ROSE AND CALUMNY

What You'll Find
"Rose and Calumny" is a series of spreadsheet puzzles, based on "ScholastiCalc." If you are familiar with "ScholastiCalc," you will find it easier to solve the puzzles.

"ROSE AND CALUMNY" MAIN MENU
"Rose and Calumny" has two functions, or things you may do. They are Rescue Rose and read the Instructions.

Rescue Rose
Choose this function to read the story, and rescue Rose. The witch Calumny will give you three puzzles to solve. Each puzzle is set up on a "ScholastiCalc" spreadsheet. The instructions for the puzzles are at the bottom of the spreadsheet.

Puzzles
Each of the three puzzles uses columns A-F on the spreadsheet. Move the cursor over to column F so that you can see the entire puzzle.

Target Values and Formulas
To solve each puzzle, you must fill in the blank cells so that the totals for each row and column match their target values.

Move the cursor over a cell in the "Total" column. A formula will appear in the upper-left corner of the screen.

Use the formula to decide which number should go into each cell to match the row or column's target value.

For example, if the formula for row 2 is A2 + B2 + C2, and the target value for row 2 is 50, then the sum of all of the numbers in row 2 must add up to 50.

If the formula for column B is A2 + A3 + A4, and the target value for column B is 57, then the sum of all of the numbers in column B must add up to 57. The formulas and target values will be different for each puzzle. Type E to enter the numbers that you think will correctly solve the puzzle.

Solving the Puzzle
When you have solved the puzzle, type C to compute the numbers. Then type Q to quit. The program will ask if you are sure you want to quit. Type Y for yes or N for no.

If you solved the puzzle correctly, you will continue with the story. If you did not solve the puzzle, the story will end. You may try again to rescue Rose!

Instructions
Choose this function to learn more about "Rose & Calumny."

Hints
- Always solve a puzzle by first filling in a row or column where only one cell is left blank. For example, if you know that you needed to add cells A1, A2, and A3 together to add up to 50, and if A1 = 10, and A2 = 25, you would know that the number in cell A3 must be 15, because 10 + 25 + 15 = 50.
- Before you start to solve a puzzle, move the cursor over any cell in column F. Write down the target values for each row. Then move the cursor over any cell in column E. That way, you will see the entire puzzle on the screen at once, and it will be easier to solve.
- Type C to compute as often as you want. The *Microzine* editors found it easiest to solve the puzzle if they typed C after they entered each number in the puzzle.

COMPUTER STUFF

"Computer Stuff" has two functions, or things you may do. They are Change disk drive/printer setup, and Initialize a data disk.

Changing Number of Disk Drives
Microzine assumes you have one disk drive. If you have two, choose Change disk drive/printer setup. Then follow the instructions given.

The advantage of having two drives is that when you need to use a data disk you will be able to put it in the second drive. You will not have to take the *Microzine* disk out of its drive.

If *Microzine* has been changed to assume two drives and you have only one, choose Change disk drive/printer setup and change back to one drive. You don't have to change the number of drives each time you use *Microzine*. It remembers.

Changing Printer Setup
Microzine assumes that you do not have a printer. If you have a printer, *Microzine* assumes it is connected to slot 1.

If you have a printer, choose Change disk drive/printer setup. Then follow the instructions.

If you do not know what slot number your printer is connected to, ask somebody who does know, or just press **RETURN**. The computer will then assume the answer is slot 1.

You don't have to change the printer setup each time you use *Microzine* —it remembers.

Initializing a Data Disk

A data disk is a blank disk (or one that you don't mind erasing) that has been initialized by *Microzine*.

To initialize the disk, choose the second function on the Main Menu. The computer will tell you that you need a blank disk, or one you don't mind erasing. Press **RETURN** and the computer will tell you to put the disk in the drive. If you're set up for one drive, take the *Microzine* disk out of the drive and put in your disk. If you're set up for two drives, just put your disk in the second drive. Then press **RETURN.**

The computer will tell you that the disk will be erased. It asks, "Do you want to go ahead? (Y/N)." Type Y if you do and then press **RETURN.** Type N and press **RETURN** if you don't want to go ahead.

History Mystery

Letter Writer

ScholastiCalc

Rose & Calumny

Microzine® *A Computer Learning Library on a Disk*™

On this disk:

History Mystery

Winsome Slugg, the notorious art thief, has stolen a priceless Babylonian hourglass and hidden it in the haunted History Museum. Can you find it? You'll get some help from the ghosts of Julius Caesar, Confucius, Thomas Edison, and others. All the decisions are yours in this challenging mystery.

Letter Writer

What is the proper way to address a letter to the President? What information should you include in a letter asking for a job interview? Let the Mailbox Critter help you to write and print your letters in the correct style and form.

ScholastiCalc

This electronic spreadsheet will help you organize the money you earn and spend, and forecast how much you'll have in a month or a year. Use it to keep track of any numbers or figures you have to handle. You can create, edit, save, and print your spreadsheets.

Rose & Calumny

The fearless adventurer Rose has been imprisoned by the evil witch Calumny. Can you rescue Rose and defeat Calumny? You'll need your best spreadsheet skills to accomplish this daring deed. This feature offers a series of challenging spreadsheet puzzles.

Learning Opportunities: Reading for detail and comprehension, history, map skills, creative writing, math, problem solving, computer literacy.

Contents: 1 two-sided disk, 1 handbook, 1 teacher's guide, 1 questionnaire

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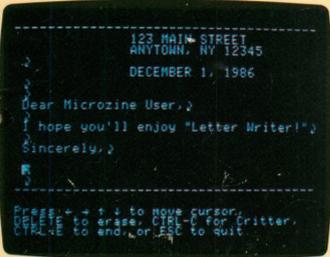Graphics created with Penguin Software's Graphics Magician.

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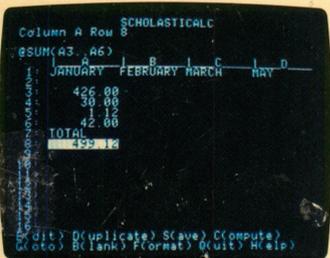
Scholastic Guarantee
This computer program has been thoroughly tested by **Scholastic** among teachers and children and is designed to challenge, stimulate and entertain your child. It reflects Scholastic's more than 65 years of experience in developing young minds.

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