Working With Information in Spreadsheets

Working with information in spreadsheets involves creating the information using special techniques that make it easy, looking at the spreadsheet and displaying numbers in different ways, and rearranging information when necessary. These activities are discussed in this chapter.

Making a Spreadsheet

This section discusses the general concepts involved in planning a spreadsheet and tells how to make a spreadsheet from scratch, from a VisiCalc file, and from a DIF file.

Planning a New Spreadsheet

When you plan a spreadsheet, you decide

- what answers you want.
- what values you need to produce these answers.
- what formulas will produce the answers.
- how you want the spreadsheet to look.

These questions are discussed in general here. See specific sections for detailed information.

Several sample spreadsheets serve as a basis for this discussion. The first, which contains net personal worth information, is illustrated in Figure 10-1. In that spreadsheet, assets and liabilities are itemized and totaled to get the net personal worth.

Figure 10-1. *Net Personal Worth Spreadsheet*

```
File: Personal Worth          REVIEW/ADD/CHANGE                Escape: Main Menu
========A========B========C========D========E========F========G========H====
  1¦
  2¦Personal Financial Net Worth Statement                    1/1/84
  3¦
  4¦
  5¦ASSETS                                        LIABILITIES
  6¦
  7¦Fluid Assets:                                 Bills Due:
  8¦Cash on Hand                 500              VISA                    876
  9¦Checking Accounts            435              Sears                   465
 10¦Savings Account            2,050              Medical Bills           330
 11¦                         ---------            Dental Bills            120
 12¦                           2,985              Homeowner's Ins.        150
 13¦                                              Auto Ins.               600
 14¦Long Term Assets:                             Life Ins.               465
 15¦Certif. Deposit            5,000                                     -----
 16¦U.S. Savings Bonds         1,000                                     3,005
 17¦Life Insurance           175,000
 18¦                         ---------            Taxes We Owe:
--------------------------------------------------------------------------------
A1

Type entry or use A commands                                    A-? for Help
```

Figure 10-2 shows the Winter Grades spreadsheet. In it, grades are listed for each test. Averages are taken for each student and for each test.

Figure 10-2. *Winter Grades Spreadsheet*

```
File: Winter Grades           REVIEW/ADD/CHANGE                Escape: Main Menu
========A========B========C========D========E========F========G========H====
  1¦
  2¦          Winter Grades
  3¦
  4¦                                  Score    Score    Score    Score
  5¦          Students              Test 1   Test 2   Test 3   Test 4  Average
  6¦          Avenir, George            98       95       88       94      94%
  7¦          Balder, Marsha            88       87       92       85      88%
  8¦          Cleveland, Mark           77       83       80       67      77%
  9¦          Edwards, Bret             83       80       85       84      83%
 10¦          Hegley, Elaine            85       88       87       88      87%
 11¦          Jenred, Jack              77       80       79       84      80%
 12¦          Lofter, Laura             99       98       99       95      98%
 13¦          Matthrews, Orem           91       90       89       92      91%
 14¦          Normans, Cuz              66       70       74       80      72%
 15¦          Prince, Perry             77       60       66       75      69%
 16¦          Serenski, Bob             81       83       80       85      82%
 17¦          Winthrop, Nigel           98       95       99       98      97%
 18¦
--------------------------------------------------------------------------------
A1

Type entry or use A commands                                    A-? for Help
```

A loan schedule spreadsheet is illustrated in Figure 10-3. In it, principal, rate, and time are used to figure the loan payment per month.

Figure 10-3. *Loan Schedule Spreadsheet*

```
File: Loan Schedule          REVIEW/ADD/CHANGE              Escape: Main Menu
========A========B========C========D========E========F========G========H====
  1:
  2:
  3:          Loan Amt      75200          ============================
  4:          Pmt/Yr           12          LOAN AMORTIZATION SCHEDULE
  5:          Total Yrs        30          ============================
  6:          Interest      11.75 %
  7:                          .12  Decimal
  8:          Interest    1111.75 % (APR)
  9:          Payments     738.36
 10:                                 Loan Amortization
 11:                        Payment No.       Principal  Payment Interest
 12:
 13:                                1......... 75200.00   759.08   736.33
 14:                                2......... 75177.26   759.08   736.11
 15:                                3......... 75154.29   759.08   735.89
 16:                                4......... 75131.10   759.08   735.66
 17:                                5......... 75107.68   759.08   735.43
 18:                                6......... 75084.04   759.08   734.73
-------------------------------------------------------------------------------
A1

Type entry or use A commands                                    A-? for Help
```

What Answers Do You Want?

The first step in planning a spreadsheet, and certainly the most important, is to decide what answers you want your spreadsheet to produce. Knowing the answers you want makes all the steps along the way a lot easier.

If you're doing a personal budget spreadsheet, like the one in Figure 10-1, you'll want totals for the year and your cash position after you subtract expenses from income. If you're keeping track of your students' grades, as in Figure 10-2, you'll want each student's average and the class average. If you're figuring your net personal worth, as in Figure 10-3, you'll want assets minus liabilities.

What Values Produce the Answers?

As you decide what answers you want your spreadsheet to produce, you also define the values you need that produce the answers.

The Answers You Want	The Values That Produce Them
Your net worth	Itemization of all your assets and liabilities
Grades for your students and class averages	All test grades for all students
The monthly payment on a loan	Principal, interest rate, and number of months for the loan

What Formulas Make the Values Produce the Answers?

After you decide on the answers you want and the values that produce those answers, you define the formulas that produce the answers. For example,

Net assets - net liabilities = net personal worth

The total for all tests / the number of tests = the average for the tests

What Should Your Spreadsheet Look Like?

At this point, you can probably visualize the layout of your spreadsheet. For example, the net worth spreadsheet makes the best sense with assets and liabilities listed in two columns. Assets and liabilities are broken down into logical groups, and these groups are in turn itemized and subtotaled. Total asset and liability figures follow the itemization, and then comes the bottom line, the net worth figure.

On the other hand, the students' grades spreadsheet works best as a typical rows and columns grid. Each kind of grade is listed across the top and students' names are listed down the left. The grades for each student are averaged across, and the class average is taken for each test at the bottom of the spreadsheet.

Several values are provided at the top of the last sample spreadsheet, the loan schedule. Then all the principal, payment, and interest figures are calculated in one long column.

Where do you want information placed?

Visualizing your spreadsheet helps you decide the best way to place information on the spreadsheet. Of course, there are as many ways to do a spreadsheet as there are AppleWorks users, so you can do it the way that works best for you.

Now translate your visualization of the information into an AppleWorks Spreadsheet. You do that with **standard values** for the spreadsheet, which you specify. Standard values determine how information is displayed, and they include:

- Standard formats for labels
- Standard formats for values
- Column widths
- How and when recalculations are made.

Spreadsheet standard values determine how labels are displayed.

The spreadsheet standard formats for **labels**, or titles, determine whether a label such as *Assets* is left justified, right justified, or centered. AppleWorks' default is that you'll want all your labels left justified.

Spreadsheet standard values determine how values are displayed.

Values, or numbers, have standard formats, too. For example, the same value, 1234.56, can be displayed in different ways: 1,234.56 (**commas format**), $1,234.56 (**dollars format**), and 1234 (**fixed decimal** with 0 decimal places), among others. AppleWorks' default for values is called `Appropriate`. *Appropriate*, in general, means *displayed as you type it.*

Spreadsheet standard values determine how wide columns should be.

Along with setting formats for values and labels, you set the widths of columns. You can use AppleWorks' default, which is that all columns are nine characters wide. You can change the width of all columns or only specific ones, if you want.

Calculation of values has a standard setting, too, both in when it's done and in what order. You should think about whether you want AppleWorks to calculate all your values automatically every time you change a value or if you want to give the signal for calculation. AppleWorks' default is that you'll want automatic calculation. If you want to give the signal, however, you change the frequency of calculation to `manual`.

Spreadsheet standard values determine how and when AppleWorks should recalculate.

You also should decide in what order calculation should occur. AppleWorks' default is down columns and across rows. You can change that to across rows and down columns. The Loan Schedule spreadsheet, for example, calculates across rows and then down columns because the calculation in one cell depends on that in the cell above and to the right.

The sample spreadsheets in Figures 10-1 through 10-3 give you an idea about formatting.

The standard format for values in the Personal Worth spreadsheet is commas format with two decimal places. This means commas between thousands and no dollar signs.

The standard format for values in the Winter Grades spreadsheet is fixed decimal format with no decimal places. The percentages down the right, however, are in percent format, with a percent sign following.

The standard format for values in the Loan Schedule spreadsheet is fixed decimal format with two decimal places.

To summarize, planning your spreadsheet involves

- planning the input values and the formulas you need to produce the answers
- planning the general layout of the spreadsheet
- determining how values and labels should be displayed as well as the width of columns and how calculation should happen.

Creating the Spreadsheet

Follow these steps to create a new spreadsheet:

1. Choose `Add files to the Desktop` from the Main Menu.
2. Choose `Make a new file for the Spreadsheet` from the `ADD FILES` menu.
3. Choose `From scratch` `From a DIF (TM) file` or `From a VisiCalc (R) file` from the `SPREADSHEET` menu.

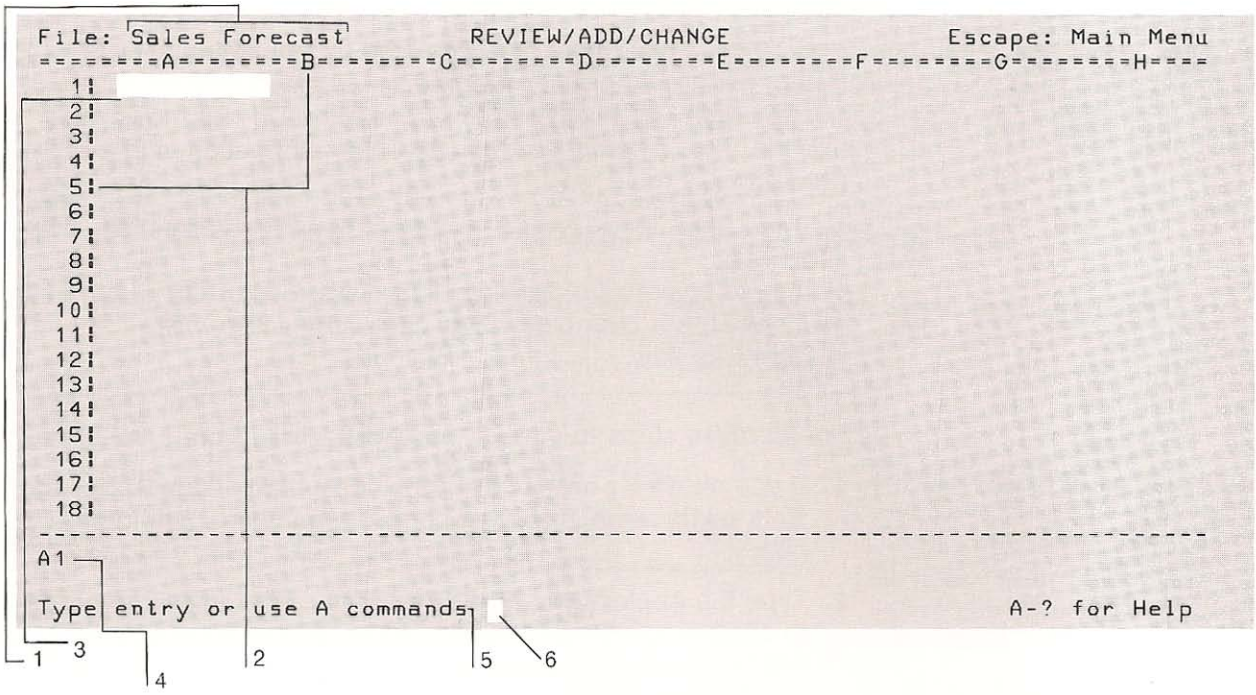
From Scratch

Follow these steps to create your spreadsheet from scratch:

1. Type the name of the new file. Filenames can be up to 15 characters long. The first character must be a letter, and the name can contain uppercase or lowercase letters, numbers, periods, and spaces. Then press (RETURN).

AppleWorks displays a spreadsheet such as the one illustrated in Figure 10-4. The callouts refer to the numbered items in the text that follows.

Figure 10-4. *A New Spreadsheet*



1. The name of your new file
2. The rows and columns, or **coordinates**, that divide your spreadsheet into **cells**. A cell is the intersection of a row and a column.
3. Your place within the spreadsheet. What you type now will go into this cell.
4. The **cell indicator** tells the cell the cursor is on and what's in it.
5. The Spreadsheet's prompt
6. The cursor that requests information in response to the prompt

Now you can start typing information into your new spreadsheet. You can

See "Using Spreadsheet Standard Values."

- set the standard formats for the values and labels in the spreadsheet
- set the column width

See "Typing and Editing Information."

- set the order and frequency of recalculation
- type the titles and the values.

From a DIF File

You can use a DIF file—a file created by AppleWorks' Data Base, VisiCalc, and other programs—as the source of a Spreadsheet file. When you first create the DIF file, however, use the C, or *column-wise* option. Then information is in the right order.

Warning
You must convert DIF files on DOS disks to ProDOS with the ProDOS User's Disk before you can use them to make AppleWorks files.

Follow these steps to make a Spreadsheet file from a DIF file:

1. If you chose `From a DIF file` AppleWorks asks for the file's **pathname**. Type the complete pathname and press (RETURN).
2. Type the AppleWorks name for the file. Filenames can be up to 15 characters long. They must begin with a letter, and they can contain uppercase or lowercase letters, numbers, periods, and spaces. Then press (RETURN).

Pathnames are discussed briefly in Chapter 1 of this manual and in the *ProDOS User's Manual*.

From a VisiCalc File

You can use a VisiCalc file as the source of a Spreadsheet file.

Warning
You must convert VisiCalc files on DOS disks to ProDOS with the ProDOS User's Disk before you can use them to make AppleWorks files.

Follow these steps to make a Spreadsheet file from a VisiCalc file:

1. If you chose `From a VisiCalc file` AppleWorks asks for the file's **pathname**. Type the complete pathname and press (RETURN).
2. Type the AppleWorks name for the file. Filenames can be up to 15 characters long. They must begin with a letter, and they can contain uppercase or lowercase letters, numbers, periods, and spaces. Then press (RETURN).

Note: AppleWorks will load only those VisiCalc functions that are also included in AppleWorks. In addition, formulas longer than 75 characters will not be loaded. Finally, some formatting commands from VisiCalc may not be loaded.

Moving the Cursor Through the Spreadsheet

You can move the cursor cell by cell through a spreadsheet, or more quickly, through larger units of information. You can also move the cursor to a specific cell. Here's how to move the cursor:

What You Want	What You Use
Move the cursor from cell to cell across rows or up and down columns	(→), (←), (↑), (↓) Holding the arrow key down moves the spreadsheet, so you can see other parts of it.
Move the cursor from cell to cell to the right or to the left	(TAB) and (Apple)-(TAB), respectively
Move the cursor to the cell on the right or the left of the screen, and then in the same direction across one full screen of information	(Apple)-(→) or (Apple)-(←)
Move the cursor to the cell on the top or the bottom of the screen, and then in the same direction up or down one full screen of information	(Apple)-(↑) or (Apple)-(↓)
Use AppleWorks' Ruler to jump the cursor proportionally through vertical sections of the spreadsheet	(Apple)-(1) through (Apple)-(9)

See "Using AppleWorks' Ruler" in Chapter 2 for information about how the Ruler works.

What You Want	What You Use
Move the cursor to a specific cell	(Apple)-(F) Choose `Coordinates` (You can type `C`.) Type the coordinates that mark the cell you want and press (RETURN).
Jump the cursor to the other half of the split screen	(Apple)-(J) after you split the screen by using (Apple)-(W)

Typing and Editing Information

This section tells how to type and edit information.

Typing Entries

It's easy to type information into Spreadsheet entries. Several guidelines apply:

What You Want	What You Use
To type information into cells	Both cursors. The **overstrike cursor**, which is the blinking rectangular cursor, replaces information under the cursor. The **insert cursor**, which is the blinking bar cursor, puts information to the right of the character the cursor is on. Information to the right moves to the right.
To switch back and forth between cursors	(Apple)-(E)
To delete one character to the left of the cursor	(DELETE)
To confirm an entry	(RETURN)
To confirm an entry *and* move the cursor in the direction of the arrow	(→), (←), (↓), (↑)

Warning

It's important to remember that pressing → , ← , ↓ , or ↑ confirms your entry and moves the cursor to another entry. In the Data Base, however, pressing → or ← moves the cursor within an entry.

Editing Entries

To edit information in a cell, use the ⌘-U (use edit feature) command. To do so:

1. Put the cursor on the cell you want to edit.
2. Press ⌘-U. AppleWorks displays the contents of the cell on the entry line, just under the cell indicator. That's where you edit the information in the cell.
3. Now choose from these options:

What You Want	What You Use
To correct information	Either cursor; switch back and forth between them with ⌘-E.
To restore the former entry and back the cursor up to the first character of the entry	ESC
To move the cursor past characters without changing them	← and →
To erase the rest of an entry starting from where the cursor is	CONTROL-Y

4. Press RETURN after you finish editing the entry.

After you press RETURN, AppleWorks checks your formula to see if it's legal. It checks, for example, whether you used parentheses properly if you are nesting formulas. If there's a problem, your computer beeps at you and waits for you to correct the mistake.

Using Labels

Labels are entries with no numeric value. They are used mostly for column and row headings.

All entries that start with letters are automatically labels. Labels can also start with numbers or special characters, even spaces. For example, column headings from 1 through 10 are considered labels. When you begin labels with numbers or spaces, you have to identify them as labels.

To identify as a label an entry that doesn't start with a letter, first type **"**. That's the signal to AppleWorks that you are starting a label. The **"** does not become part of the label; it's just understood by AppleWorks as a label-signal.

If a label is too long to fit in one cell, AppleWorks automatically divides it among adjacent non-numeric, unprotected cells.

To get a *repeated label*, such as `---------` or `=========`, simply hold down the key until the cell is full. Then press (RETURN). The cell indicator will say `(Label) Repeated--` or `(Label) Repeated-=`. When you lengthen a column, AppleWorks adds more of the same character.

Repeated cells cannot be edited with (Apple)-(U).

The cell indicator provides information about labels, as Table 10-1 illustrates. It tells that the entry is a label rather than a value and provides information about special cell layouts.

Table 10-1. *How Labels Go In Cells*

If the Cell Indicator Shows	And You Type This Information	You Get This Label
(Label)	Jan 1 84	Jan 1 84
(Label)	" Date:	Date:
(Label)	"1	1
(Label)	" --------	--------
(Label, Layout-R)	Feb	Feb

Values include numbers, pointers, functions, and formulas. This section provides details about each kind.

Numbers

Numbers are entries that are used in calculations. They designate a quantity of units such as dollars and donuts.

Spreadsheet numbers must start with the digits 0 through 9, a plus sign (+), a minus sign (-), or a decimal point (.).

The cell indicator provides information about numbers, as Table 10-2 shows. The cell indicator tells that the number is a value, rather than a label, and provides information about special cell layouts, if any.

Table 10-2. *How Numbers Go In Cells*

If the Cell Indicator Shows	And You Type This Information	You Get This Label
(Value)	1250	1250.00
(Value, Layout-D2)	136	$136.00
(Value, Layout-F1)	-4478.32	-4478.3

Pointers

Pointers point to other cells in the spreadsheet. They tell AppleWorks to put the value in the pointed-to cell into the current cell. AppleWorks takes the value exactly from the pointed-to cell, so that the current cell contains the same value as the pointed-to cell.

Pointers must begin with a plus sign (+) or a minus sign (-), which is how AppleWorks knows you're not typing a label. Following the plus or minus sign are the coordinates for the cell you're pointing to. Examples of pointers are +A5 and -Z280.

The cell indicator provides information about pointers, as Table 10-3 shows. It tells that the pointer is a value, rather than a label, and displays the pointer.

After entering a plus sign, minus sign, or decimal point, you can point to the cell by using the arrow keys. Then press (RETURN) or another plus or minus sign or decimal point. Then continue the formula in the cell or press (RETURN).

***Table 10-3**. How Pointers Go In Cells*

If the Cell Indicator Shows	And You Type This Information	You Get This Label
(Value, Layout-D2)	+J30	$136.00 (if cell J30 contains 136)
(Value, Layout-F1)	+C47	-4478.3 (if cell C47 contains -4478.32)

Functions

Functions are codes that stand for a common or complex calculation. When you type a function into a cell, you are calling for a special formula that operates on cells you specify or values you supply. All functions start with the @ sign (the *at* sign) and an abbreviation that stands for the function, such as @SUM or @SQRT.

Suppose you type this function into cell C44:

```
@SUM(V13...V16)
```

@SUM is the code that stands for *Add up the values in the following cells:* and (V13...V16) stands for *Cells V13, V14, V15, and V16*. After the sum of cells V13 through V16 is calculated, it goes in cell C44.

Here are several other examples of functions. Suppose each one is typed into cell A2:

@SQRT(B44) means *Figure out the square root of the value in cell B44 and put it into cell A2.*

`@MAX(C33,125,A4*65)` means *Find the largest value from the contents of cell C33, the number 125, and the result of multiplying cell A4 times 65. Then put that value into cell A2.*

`@INT(M19)` means *Put the integer part of the contents of cell M19 into cell A2.*

Functions always consist of the following:

- @
- The code that stands for the function

Functions may also consist of an argument. Table 10-4 shows the possible types of arguments for functions.

Table 10-4. *Arguments for Functions*

Argument	What It Means
Value	A single value, either a cell reference, a number, or an expression that evaluates to a number, such as (A19)
Range	A series of adjacent cells separated by *three* periods, such as (A36...A39) or (A48...D52)
List	A list of single values or ranges separated by commas, such as (D45,X19,135) or (A36...A39,A48...D48)

The arrow keys are very useful in pointing to cell coordinates that you want to be part of your formula. Just point to the cell and then continue the formula. For example, to create the formula `@SUM(V13...V16)`, type `@SUM` and then use the arrow keys to point to cell V13. Type a period (.) to continue the formula, and then point to cell V16 and press (RETURN). Type a closing parenthesis and then press (RETURN).

Arithmetic Functions

Table 10-5 lists arithmetic functions. Following Table 10-5 are discussions of @NA, @ERROR, @CHOOSE, and @LOOKUP.

Table 10-5. *Arithmetic Functions*

Function	Result
@ABS(value)	Absolute value of the argument
@AVG(list)	Arithmetic mean of the values in the list
@CHOOSE(list)	The value in the list according to its place in the list (second, third, fourth, and so on) after an evaluation of the first value in the list
@COUNT(list)	Number of non-blank entries in the list
@ERROR(no argument)	ERROR
@INT(value)	Integer portion of the argument
@LOOKUP (value,list)	The value in a second table corresponding to the position of the value in the first that is equal to or less than the value in the argument
@MAX(list)	The largest value in the list
@MIN(list)	The smallest value in the list
@NA(no argument)	Not available
@SQRT(value)	Square root of the argument
@SUM(list)	The sum of all values in the list

@NA

Type @NA in cells where you know you need a value but it's not available yet. When AppleWorks calculates values that refer to cells that contain @NA, the result is NA. That helps you keep track of values you still need to type in.

@ERROR

@ERROR causes ERROR to be displayed at the location where it is entered and at all locations that refer to it.

@CHOOSE

@CHOOSE takes one of the values in its list of arguments using the first element in the list as the index to the following arguments. For example, suppose cell A1 contains @CHOOSE(B5,18,47,39). Cell B5 is evaluated to see if its value is 1, 2, or 3. If its value is 1, then 18 is put into cell A1. If its value is 2, then 47, and if 3, then 39.

If the first argument is 0 or less, or if its value is greater than the number of remaining arguments, then @CHOOSE is evaluated to NA.

@LOOKUP

@LOOKUP sets up two tables, the first either a row or a column you specify, and the second the column to the right or the row below the first. It then takes a value you supply, the search value, and searches sequentially for the largest value in the first table that is equal to or less than the search value. When it finds the correct value, it returns the value *in the adjacent cell in the second table.*

The values in the first table must be in ascending order. If the search value is smaller than the first entry in the first table, NA is returned. If the search value is larger than any value in the first table, the last value in the table is returned.

Figure 10-5 shows an example of a @LOOKUP function.

Figure 10-5. *Lookup Table*

First table	10	25	60	98
Second table	5	10	15	20

The value of @LOOKUP (65,A4...D4) is 15.

65 represents a search value

Financial Function

@NPV(interest rate,range) figures future cash flows by figuring the net present value of a series of even or uneven payments (the range argument). The first argument is the discount rate, or cost of money used to discount the future cash flows, and the second is a range of locations that include the cash flows themselves.

The internal rate of return of an investment is equal to the discount rate that produces a net present value of 0. You can find this by trial and error.

Logical Function

Here are several examples of @IF:

@IF(B1>B2,13,X19)

@IF(C11<5,14,J20/J19)

@IF(A1=3,11,B4-5)

@IF takes three values. The first must be a logical value, that is, an expression that can be evaluated to true or false. The second and third can be any value.

@IF uses logical operators to evaluate the expression to be either true or false. Depending on whether it's true or false, the value of the second or the third argument is returned. Table 10-6 lists the logical operators you can use in the expression and their values.

Table 10-6. *Logical Operators*

Operator	Value
<	Less than. The expression is TRUE if the first value in the expression is less than the next. FALSE if it's not.
<=	Less than or equal to. The expression is TRUE if the first value is less than or equal to the next. FALSE if it's not.
>	Greater than. The expression is TRUE if first value is greater than the next. FALSE if it's not.
>=	Greater than or equal to. The expression is TRUE if the first value is greater than or equal to the next. FALSE if it's not.
=	Equals. The expression is TRUE if the first value equals the next. FALSE if it doesn't.
<>	Not equal to. The expression is TRUE if the first value does not equal the next. FALSE if it does.

Table 10-7 shows how the values of the logical expression are evaluated.

Table 10-7. *Evaluations for the Function IF*

If the Value of the First Argument Is	The Expression Evaluates To
TRUE	Value of second argumewnt
FALSE	Value of third argument
NA	NA
Not logical or ERROR	ERROR

Formulas

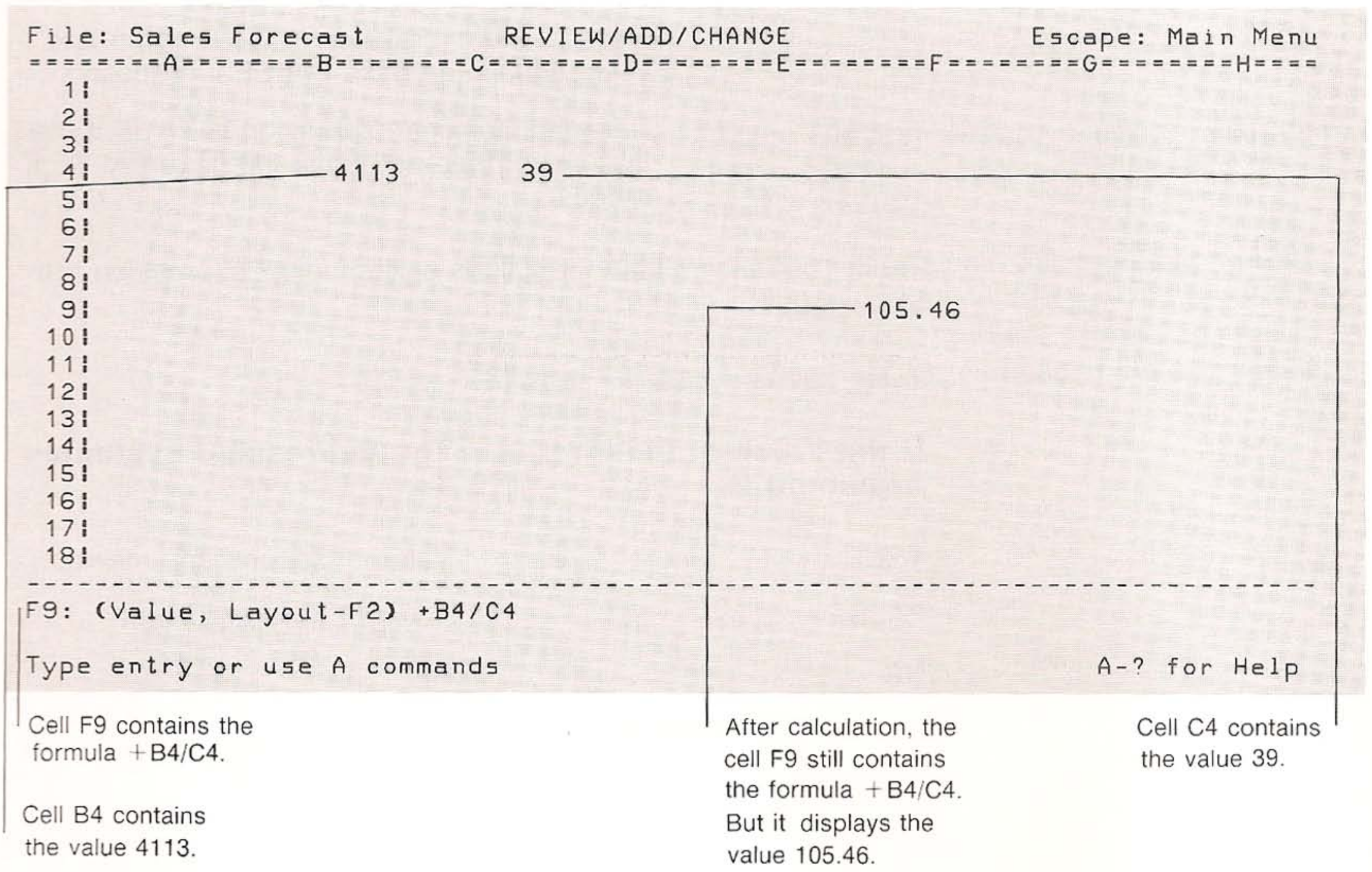
Formulas are mathematical statements that calculate numbers. They are stored in spreadsheet cells, and then during recalculation (automatic or manual), the value of the formula is calculated. Only the value is displayed.

Formulas can consist of two or more of the following:

- Numbers
- Arithmetic operators (+ - * / ^)
- Pointers, such as (+A6 or +B17)
- Functions

Figure 10-6 shows how a formula works.

Figure 10-6. *How a Formula Works*



Formulas must begin with a plus sign (+), a minus sign (-), a decimal, the digits 0-9, a left parenthesis ((), or the *at* sign (@). The cell indicator provides information about formulas, as Table 10-8 shows. The cell indicator tells that the formula is a value and displays the formula.

Table 10-8. *How Formulas Go In Cells*

If the Cell Indicator Shows	And You Type This Information	You Get This Label
(Value)	+B6*C4	1250.00 (if cell B6 contains 5 and cell C4 contains 250)
(Value, Layout-D2)	+C4-114	$136.00
(Value, Layout-F1)	+C4-B7	-4478.3 (If cell B7 contains 4728.32)

Press (Apple)-(Z) to zoom in to the formula for every cell. Only the portion of the formula that fits within the cell width will show. If you press (Apple)-(P) to print the spreadsheet, while you are zoomed in, formulas print. Press (Apple)-(Z) to zoom out to the cells in their normal appearance.

You can use the arrow keys to point to cells used in formulas. That saves you from having to type in the cell coordinates. After you use the arrow keys to point to, or move the cursor to, the cell, press (RETURN).

Working With Spreadsheet Standard Values

Spreadsheet **standard values** specify how information in the spreadsheet is displayed. Spreadsheet standard values tell, for example, whether labels are left justified, right justified, or centered in cells. They also tell how many decimal places values should have, or whether they should have dollar or percent signs.

Before you start a spreadsheet or at any time while you are working with it, you can change the default standard values. You change spreadsheet standard values with the ⌘-V (standard values) command, discussed later in this section. After you change the standard values, all the information is displayed according to your new specifications.

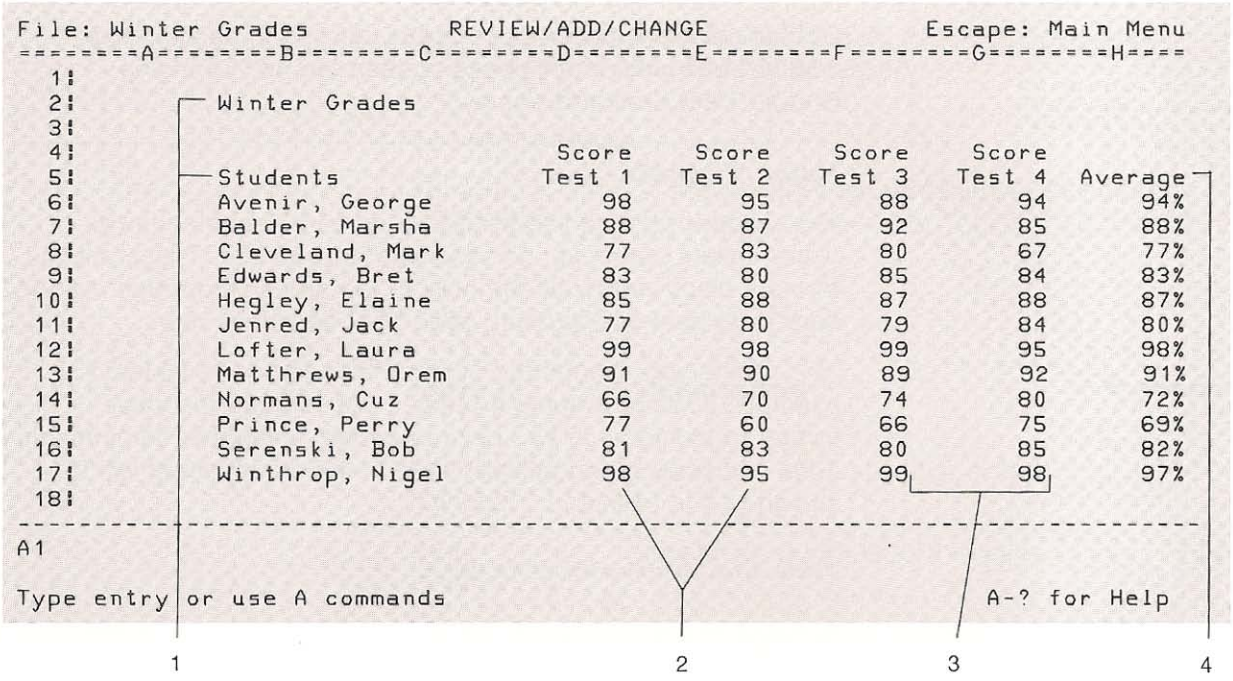
Spreadsheet standard values are available for **value formats**, **label formats**, **column widths**, **protection**, and **recalculate**.

See "Working With Cell Layouts" for information on how to override standard values.

You can override spreadsheet standard values for specific cells with the ⌘-L command. Standard values affect the entire spreadsheet, whereas the layout command affects a specific cell or group of cells.

Figure 10-7 shows a display of a sample spreadsheet. The numbers refer to the explanations for the spreadsheet standard values that follow.

Figure 10-7. *Spreadsheet Standard Values*



1. Labels are left justified.
2. Numbers are appropriate format with decimal places as needed.
3. Columns are nine characters wide.
4. Labels that head columns are exceptions to the spreadsheet standard values.

See "Protection" and "Recalculate."

The two other spreadsheet standard values—recalculation order and frequency, and protection—are not evident by looking at a spreadsheet, but rather when you use the spreadsheet.

Remember that the standard values have nothing to do with what is stored in the cell, but everything to do with what is displayed. For example,

If You Type	And the Standard Is	It Displays	And Stores
1.2345	Fixed decimal, no decimal places	1	1.2345
1	Fixed decimal, three decimal places	1.000	1