Numeric Tables

IBM

Numeric Tables

IBM

First Edition (June 1983)

Changes may be made periodically to the information herein.

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM program product in this publication is not intended to state or imply that only IBM's program product may be used. Any functionally equivalent program may be used instead.

Publications are not stocked at the address given below. Requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

A form for readers' comments is provided at the back of this publication. If the form has been removed, comments may be addressed to IBM Corporation, Department 95H, 11400 Burnet Road, Austin, Texas, U.S.A. 78758. IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

ABOUT THIS BOOK

Purpose and Audience

This book is intended for operators who use the IBM Displaywriter System and have completed *Starting Your Training*.

Contents

In this book you will learn the steps for creating and revising numeric tables and checking mathematic calculations.

Related Publications

A description of related publications is provided in the *Operator Guide to Training*.

Data Security

All magnetic media are subject to physical damage, erasure, and loss for a variety of reasons, including operator error, accidental occurrences, and machine malfunction. In addition, magnetic media are subject to theft. Therefore, an integral part of any informational system should be to establish and implement backup (duplication) procedures. The customer, not IBM, is solely responsible for establishing and implementing all such procedures.

Your Displaywriter is able to assist you in constructing tables containing numbers, words, or a combination of both. Lesson 1 of this unit shows you how to create and revise numeric tables.

Lesson 2 teaches you about the Column Reference function. This function, which is for Textpack 6 only, is especially helpful while creating or revising wide tables.

You may be required to perform mathematical calculations within the tables you create. Lesson 3 shows you how to use the math functions of your Displaywriter.

The training documents for this unit are found on MASTR3. Before beginning this unit, you should duplicate MASTR3 onto TRAIN3. The procedure for duplicating work diskettes can be found in your *Job Aids*, or in *Starting Your Training*, Lesson 5.
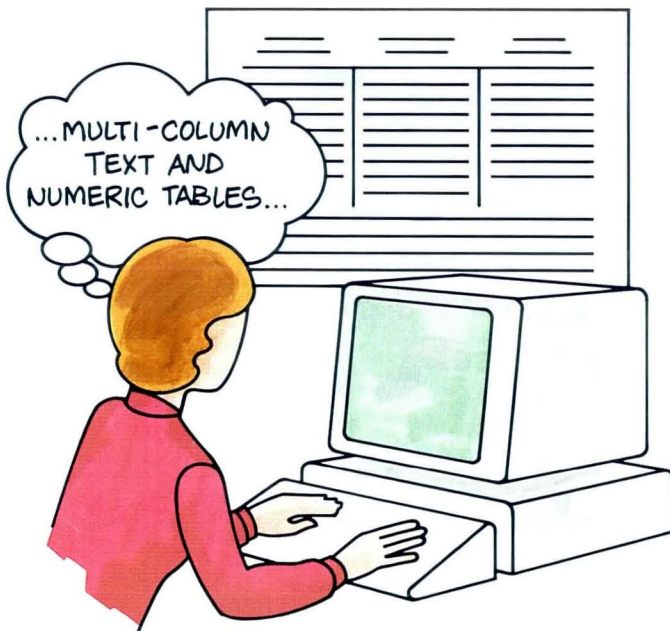
...MULTI-COLUMN TEXT AND NUMERIC TABLES...
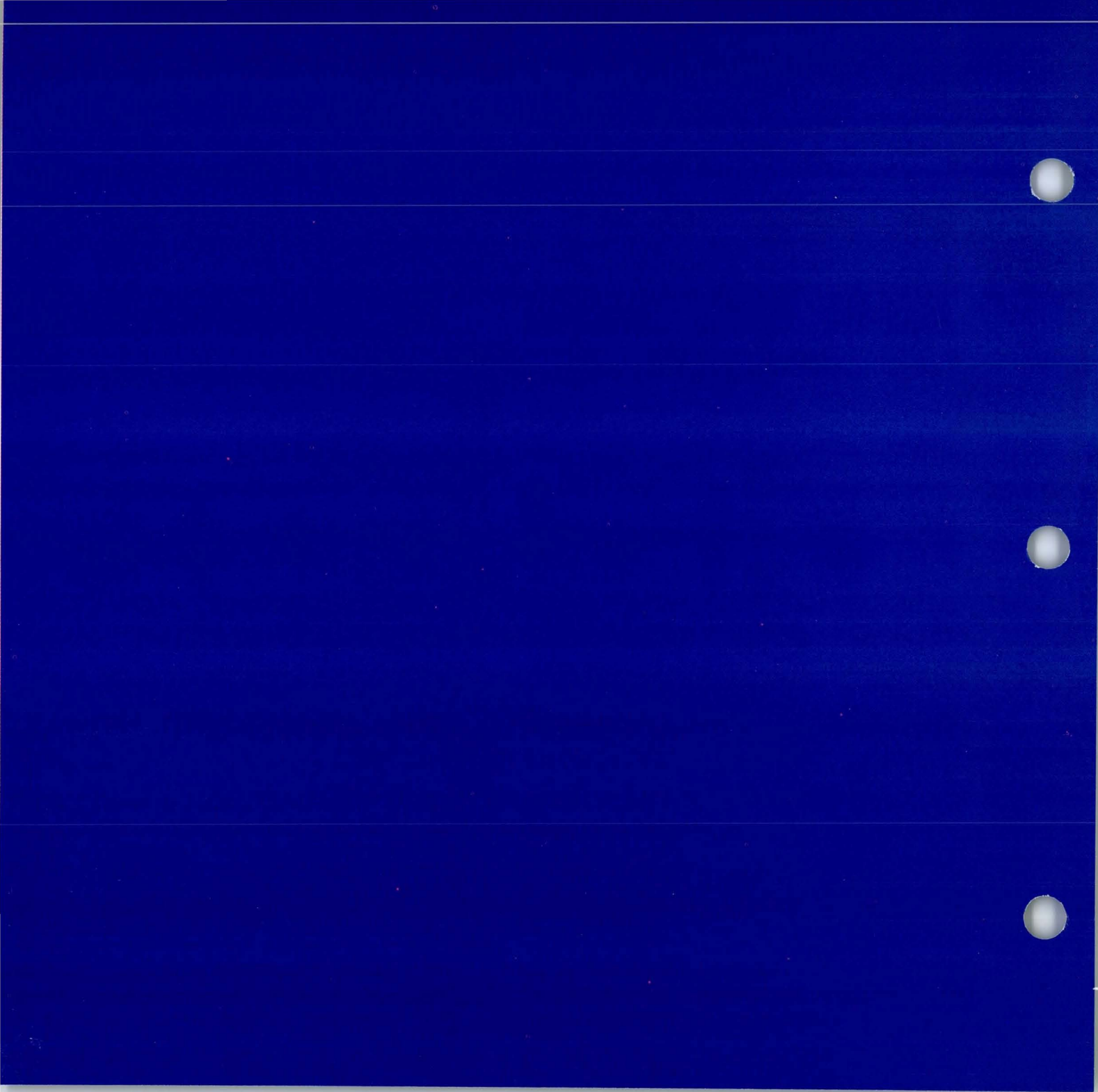
Unit: Numeric Tables

1 Have you ever had to set up a table within a document? To set your tabs you had to decide on the margins and calculate the space between columns. You may have had to center the column headings and change from double spacing to single spacing. To complete the document, you probably had to change back to your original settings. You may have hoped you would never have to do another table!

The Column Layout function on the Displaywriter can help you to set up a table without your stopping to figure tab settings. Column Layout calculates column width, sets tabs automatically so that there is equal space between each column, and inserts format changes. If you must revise the table later by adding or deleting columns, the Displaywriter recalculates and sets the tabs accordingly.
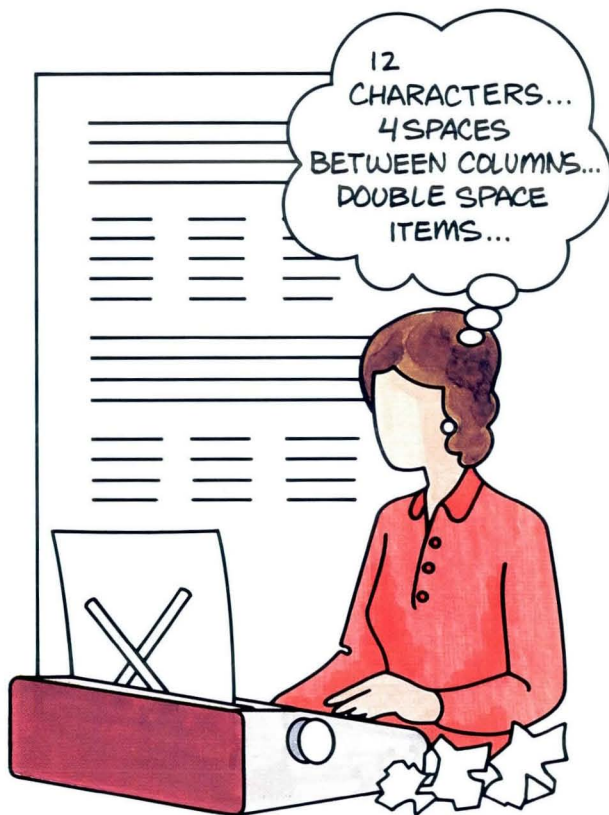
Column Layout enables you to leave your text typing area temporarily to create a table. You create the table in a special typing area. The text typing area and the table reappear on the screen when you finish the table.

Text typing area

February 16, 1983

MEMO TO: R. H. Lore
                                Forecasting Director

SUBJECT: Department 060 Gross Sales Figures

Below are the gross sales figures for Department 060 for the last three years. In spite of the economy, we have been fortunate in seeing an increase in revenue each quarter.

DEPARTMENT 060 SALES ANALYSIS

Table

Sales Period	1980	1981	1982
Quarter 1	$200,321.33	$203,142.00	$204,568.29
Quarter 2	201,987.42	206,223.14	207,749.09
Quarter 3	204,879.46	211,876.34	212,977.89
Quarter 4	210,343.89	213,012.86	215,594.11

Text typing area

I hope these figures will help you in your 1984 forecasting. The attached computer printout gives the analysis by sales representative and by product. If you need any further information, don't hesitate to give me a call.

T. B. Arthur, Manager
Department 060

TBA:crd
Attachment

Text already created on a page remains in place, even though it is not visible when you are typing the table.

Notice the codes on the document that follows. You are familiar with the Format Change code. The other codes are Begin and End Table codes. The Begin Table code alerts the system that a table follows. The End Table code signals the end of the table.

February 16, 1983

MEMO TO: R. H. Lore
                           Forecasting Director

SUBJECT: Department 060 Gross Sales Figures

Below are the gross sales figures for Department 060 for the last three
years. In spite of the economy, we have been fortunate in seeing an
increase in revenue each quarter.

<u>DEPARTMENT 060 SALES ANALYSIS</u>

Begin Table code ⟶

End Table code ⟶

Sales Period	<u>1980</u>	<u>1981</u>	<u>1982</u>
Quarter 1	$200,321.33	$203,142.00	$204,568.29
Quarter 2	201,987.42	206,223.14	207,749.09
Quarter 3	204,879.46	211,876.34	212,977.89
Quarter 4	210,343.89	213,012.86	215,594.11

I hope these figures will help you in your 1984 forecasting. The
attached computer printout gives the analysis by sales representative
and by product. If you need any further information, don't hesitate to
give me a call.

T. B. Arthur, Manager
Department 060

TBA:crd
Attachment

The Column Layout function adjusts the spacing in tables by setting the tabs for you. If you must add columns or delete columns, the Displaywriter recalculates the spacing and sets the tabs accordingly.

Original

Automatically readjusts to delete columns

Automatically readjusts to add columns

In this lesson you will learn how to use Column Layout. In Segment 1 you will learn how to create a table. In Segments 2, 3, and 4 you will learn how to revise tables by adding, deleting, moving, and copying columns. Finally, you will learn how to revise table formats in Segment 5. One important note: Before you begin creating tables using Column Layout, you must plan your table. For a review of the items you should consider when planning tables, see *Common Text Applications*, Lesson 2, Segment 1.

1

You have probably typed tables in many different documents. Planning and creating tables is often a difficult task.

Complex tables take time to create. On a typewriter, you have no choice but to try various tabs, estimating the space between columns, or manually computing the tab settings. You also might have two or more tables on the same page.

With the Column Layout function you can create tables with evenly spaced columns and centered headings. The Displaywriter spaces the material evenly across the page and sets tabs for you. You can even create different table formats for different tables in your document.

Your goal for this segment is to be able to create a table using the Column Layout function.

MAIN IDEA

Note: Before you begin to create tables using Column Layout, make sure Display Codes is set to No.

To create a table using Column Layout:

1. Press LAYOUT.
2. Follow the Column Layout instructions.
   a. Determine the appropriate types of tabs.
   b. Type the longest entry in the first column.
   c. Press COLUMN.
   d. Repeat Steps a through c for each column in your table.
      Note: Do not press COLUMN after the last entry unless you want additional space between the last column and the right margin.
   e. Press LAYOUT.
   f. Press ENTER.
3. Type the table.
4. Press ENTER.

If you have enough information about creating tables with Column Layout, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

Before you begin to create a table using Column Layout, set Display Codes to No. You can create the table with Display Codes set to Yes, but the table will not appear to be aligned on the screen.

    If your table is embedded within text and the heading for the table is not part of the table, type a Begin Keep code before the heading and an End Keep code after the table. By doing this, your table and heading will stay together when you paginate or revise the document. For more information on Keep codes see *Common Text Applications*, Lesson 3, Segment 1.

With Begin Keep and End Keep codes

Begin Keep code

Begin Table code

End Table code

End Keep code

Without Begin Keep and End Keep codes

To create a table using Column Layout:

1. **Press LAYOUT.**

The Column Layout instructions appear on the screen.
If you are using Textpack 4, the instructions look like this:


```
<========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT=========>

1. Type longest entry of each column (a's will appear).
                For Flush Left Column: Press TAB, then type entry
     For Decimal-Aligned Column: Type number with decimal point.
                 For Centered Column: Type entry, then press CTR.
              For Flush Right Column: Type entry, then press RET.
                     For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press ENTER when finished to type new table, or press ↓
     to move cursor to last line of existing table, then press ENTER.
```

If you are using Textpack 6, the instructions look like this:

```
<========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>

1. Type longest entry of each column (a's will appear).
                 For Flush Left Column: Press TAB, then type entry
         For Decimal-Aligned Column: Type number with decimal point.
                   For Centered Column: Type entry, then press CTR.
              For Flush Right Column: Type entry, then press RET.
                      For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new table, or press ↓
      to move cursor to last line of existing table, then press ENTER.
```

2. Follow the Column Layout instructions.
   a. Determine the appropriate types of tabs.
   You can choose to align your column entries on a decimal point or a comma. Or, you can choose to align entries with flush right or flush left tabs. You can center the entries by using a center tab. You can use a number of different tab settings in one table. The method for setting each kind of tab is included in the Column Layout instructions.

```
<========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>

1. Type longest entry of the new column only (o's will appear).
                 For Flush Left Column: Press TAB, then type entry.
         For Decimal-Aligned Column: Type number with decimal point.
                   For Centered Column: Type entry, then press CTR.
              For Flush Right Column: Type entry, then press RET.
                      For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

b. Determine how long the longest entry will be for your first column. Then, follow the instructions in Number 1 on the screen to type the entry. Notice that the procedure for typing the entry varies, depending on the type of column you are creating.
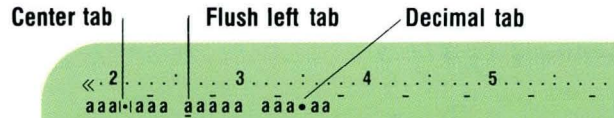
Center tab   Flush left tab   Decimal tab

```
《 ·2 . . . . : . . . 3 . . . : . . . 4 . . . : . . . 5 . . . : . . -
  aaa·ı aaa  aaāaa  aāa•aa
```

```
========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>
1. Type longest entry of the new column only (o's will appear).
        For Flush Left Column: Press TAB, then type entry.
   For Decimal-Aligned Column: Type number with decimal point.
         For Centered Column: Type entry, then press CTR.
       For Flush Right Column: Type entry, then press RET.
             For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

If you are setting up a flush left column, an underlined lowercase *a* appears when you press TAB.

As you type the entry, lowercase *a*'s appear. These *a*'s represent the characters in the entry. Do not be concerned about typographical errors. The important thing is to type the correct number of characters.
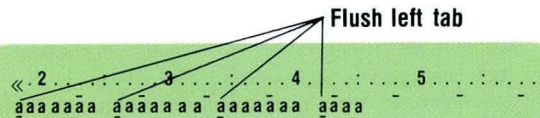
Flush left tab

```
《 ·2 . . . . : . . . 3 . . . : . . . 4 . | . . : . . . 5 . . . : . . -
  aaaaaaa  aaaaaaa  aaaaaaa  aaaa
```

```
========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>
1. Type longest entry of the new column only (o's will appear).
        For Flush Left Column: Press TAB, then type entry.
   For Decimal-Aligned Column: Type number with decimal point.
         For Centered Column: Type entry, then press CTR.
       For Flush Right Column: Type entry, then press RET.
             For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

To center a heading within the table, press CTR after you have typed the last *a* in your column entry. A center tab instruction appears in the center of the *a*'s.

Note: If the entry has a decimal tab and is four or five digits (aa.aa or aaa.aa), the center tab will replace the decimal tab because the decimal tab is at the center. You can use the center tab to align the numbers and also center the heading. However, if the numeric column will be used with the Displaywriter math functions, the numbers must be set up on a decimal tab. (For more information on math functions, see Lesson 3 of this unit.)

c. Press COLUMN.
   A single blank space appears.

Flush left tab   Center tab

```
«. 2 . . . . : . ./. 3 . . . : . . . 4 . . . : . . . 5 . . . : . . .
 ɪaa aaāaaɪ·ɪaāaaaaā
```

```
⇐========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========⇒
1. Type longest entry of the new column only (o's will appear).
          For Flush Left Column: Press TAB, then type entry.
   For Decimal-Aligned Column: Type number with decimal point.
           For Centered Column: Type entry, then press CTR.
        For Flush Right Column: Type entry, then press RET.
               For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

Space

```
«. 2 . . . . : . . . 3 . . .ɪ. : . . . 4 . . . : . . . 5 . . . : . . .
 aaaaaāaaɪ·ɪaāa aaaā
```

```
⇐========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========⇒
1. Type longest entry of the new column only (o's will appear).
          For Flush Left Column: Press TAB, then type entry.
   For Decimal-Aligned Column: Type number with decimal point.
           For Centered Column: Type entry, then press CTR.
        For Flush Right Column: Type entry, then press RET.
               For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

d. Repeat Steps a through c for each column in your table.

For each column, determine the tab setting, type the longest entry, and press COLUMN. Your screen should look similar to the one on the right.

Note: Do not press column after the last entry unless you want additional space between the last column and the right margin.

```
« .2 . . . . : . . . . 3 . . . . : . . . . 4 . . . . : . . . . 5 . . . . : . . . .
aaaaaaaaa·ıaaaaaaa  aaaaa·ıaaaaa  aaaaa·ıaaaaa
```

```
⇐======== READ ALL INSTRUCTIONS FOR COLUMN LAYOUT ==========⇒

1. Type longest entry of the new column only (o's will appear).
           For Flush Left Column: Press TAB, then type entry.
      For Decimal-Aligned Column: Type number with decimal point.
            For Centered Column: Type entry, then press CTR.
          For Flush Right Column: Type entry, then press RET.
               For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

e. Press LAYOUT when you have typed all the column entries.

The columns' *a*'s spread out between the right and left margins with an equal amount of blank space between them.

```
« .2 . . : . . .3 . . : . . .4 . . : . . .5 . . : . . .6 . . : . . .7 . . : . . .8 . . : . . .»
a a a aaaaa·aaa a aaa       aaaaa·aa a aa           aaaa·aaaaa
```

```
⇐======== READ ALL INSTRUCTIONS FOR COLUMN LAYOUT ==========⇒

1. Type longest entry of the new column only (o's will appear).
           For Flush Left Column: Press TAB, then type entry.
      For Decimal-Aligned Column: Type number with decimal point.
            For Centered Column: Type entry, then press CTR.
          For Flush Right Column: Type entry, then press RET.
               For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```
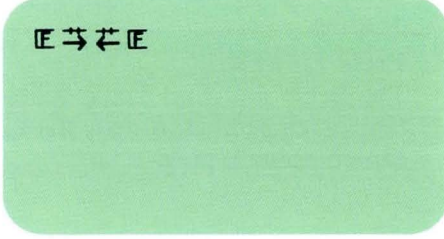
f. Press ENTER.
 You are in the Column Layout typing area.
 An End Table code appears on the screen.
 If you move your cursor to the left as far
 as it will go, you will also see a Format
 Change code.
 Both codes have been set automatically by
 the system. If you move your cursor to the
 right of the Format Change code, you see a
 Begin Table code, then an End Table code
 and another Format Change code. The End
 Table code and the last Format Change code
 move down the typing area as you type your
 table, just as the Page End code moves as
 you type.
 Note: If you press ENTER too many times,
 you leave the Column Layout typing area and
 return to the text typing area. You should
 delete the codes the system put in for the
 table and begin again. Set Display Codes to
 Yes to locate and delete the following codes:
 ⅊ ⇉ ⇄ ⅊ . Set Display Codes to No and
 start over with Step 1.

3. Type the table.
When you are in the Column Layout typing area, the appropriate tab settings appear on the scale line. Tab to the appropriate tab setting, then type the entry. If you make a mistake while typing, press BKSP to correct it. Do not press RETURN after the last column entry in the last line of the table. A carrier return has been entered automatically.
Note: To create a table with centered headings, tab to the Center code (on the scale line) and type your heading.

4. Press ENTER.
The Begin and End Table codes disappear. If the table is embedded in text, the text reappears. You can continue typing.

To create a table with Column Layout, go on to the Demonstration.

DEMONSTRATION 1

For this Demonstration you will create the illustrated
table using Column Layout.

Create the following document:

Document name: Basketball
Diskette name: TRAIN3

**Before you get to the typing area, set the line spacing
to double spacing in the Create or Revise Document
menu.**

Go to the typing area.

**Before you begin creating the document, make sure
Display Codes is set to No.**

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

Center and type the three-line table heading. Press RETURN twice after typing the heading.

You do not have to put a Begin Keep code before the heading and an End Keep code at the end of the table. The table is not embedded in text, and since it is not longer than one page, the Keep codes are not necessary.

Press LAYOUT.

The Column Layout instructions appear on the screen and the table heading disappears.

The first column is a flush left column. Follow the instructions on the screen to set a flush left tab.

An underlined *a* appears on the screen.

Type the longest entry of the first column.

The longest entry has thirteen characters (*Lyle Peterson*). Notice that an *a* appears for each character you type.

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

Press COLUMN.

The cursor moves one space to the right.

Set up the rest of the columns using the following information:

Remember to press COLUMN after you type each entry, except the last.

Column 2: Flush left tab; longest entry is ten characters (*Washington*).

Column 3: Flush left tab; longest entry is six characters (*Height*).

Column 4: Flush left tab; longest entry is six characters (*Senior*). Do not press COLUMN.

Press LAYOUT.

The columns realign to allow equal space between them.

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

Press ENTER to go to the Column Layout typing area.

An End Table code appears highlighted on the screen.

Move your cursor to the left until you find the Format Change code.

This code alerts the system that a format change is occurring. Move your cursor one space to the right. A Begin Table code appears. Move your cursor one space to the right again. You will see the End Table code again. Move your cursor to the right twice until you see another Format Change code. This code instructs the Displaywriter to return to the original format used for this document.

Return the cursor to the End Table code. Both the End Table code and the last Format Change code will move as you type your table. *Make sure your cursor is on the End Table code (⇄) before you continue.* Look at the status line to make sure your cursor is under the End Table code.

Your cursor should already be on the first tab setting, which is set at the left margin. Type the first column heading (*Players*) and use WORD UND to underline the heading.

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

Tab and type the rest of the column headings, then press RETURN two times.

Type the rest of the table.

Notice the beep after you type the entry for the last column. This is to remind you to press RETURN, since Auto Carrier Return is not active with Column Layout.

Press RETURN once.

The line spacing for the document is double.

Do not press RETURN after your last entry for the fourth column. The Displaywriter inserts a carrier return for you automatically.

Press ENTER.

The table and the heading display.

Press END and print a copy of the document if you wish to compare yours with the illustrated document. They should be identical.

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

To create another table using Column Layout, go on to the next page for another Demonstration.

DEMONSTRATION 2

In this second Demonstration you will create another
table using Column Layout.

Create the following document:

Document name: Corporation
Diskette name: TRAIN3

**Type the sentence at the top of the page and press
RETURN twice.**

```
Below is the consolidated financial statement for our corporation and
subsidiaries as of 1980.

    LIABILITIES                      JANUARY              JULY

1980 Taxes                          $3,296.09         $3,256.22
Loans Payable                          951.88            393.23
Accounts Payable                       271.96            268.45
Benefits                             4,140.54          2,711.67
Deferred Income                      3,116.10          1,501.00

The current equity method accounts for investments in joint ventures and
affiliated companies.
```

Press LAYOUT.

The Column Layout instructions appear on your screen.

Set up the following columns:

Column 1: Flush left tab; longest entry (*Accounts Payable*) is 16 characters; center column heading.

Note: To center a column heading, press CTR after you type the *a*'s for your longest entry.
Remember to press COLUMN after you type the *a*'s to separate each column.

Column 2: Decimal tab; longest entry (*$3,296.09*) is nine characters; centered column heading.

Column 3: Decimal tab; longest entry (*$3,256.22*) is nine characters; centered column heading. Do not press COLUMN.

Press LAYOUT.

The columns align so that there is equal space between each column.

Press ENTER.

The Column Layout instructions disappear and you are in the Column Layout typing area.

Below is the consolidated financial statement for our corporation and subsidiaries as of 1980.

LIABILITIES	JANUARY	JULY
1980 Taxes	$3,296.09	$3,256.22
Loans Payable	951.88	393.23
Accounts Payable	271.96	268.45
Benefits	4,140.54	2,711.67
Deferred Income	3,116.10	1,501.00

The current equity method accounts for investments in joint ventures and affiliated companies.

Type the column headings.

To type the centered headings, tab to the first Center code and type *LIABILITIES*. Then tab to the next Center code and type the next heading. Use the same procedure to type the last heading, then press RETURN twice.

Type the table. Press RETURN once at the end of each line.

Your cursor is on the first tab setting, which is set at the left margin. Type the first entry. Tab twice to the first *decimal* tab setting and type the first entry for the second column. Tab twice again to the next *decimal* tab to type the third column entry. Press RETURN. Repeat this procedure until you have typed all the entries.

Do not press RETURN after your last entry. The Displaywriter automatically enters a carrier return for you.

Press ENTER.

The system automatically puts another blank line in the document. You will have one blank line between the table and the last sentence.

Below is the consolidated financial statement for our corporation and subsidiaries as of 1980.

LIABILITIES	JANUARY	JULY
1980 Taxes	$3,296.09	$3,256.22
Loans Payable	951.88	393.23
Accounts Payable	271.96	268.45
Benefits	4,140.54	2,711.67
Deferred Income	3,116.10	1,501.00

The current equity method accounts for investments in joint ventures and affiliated companies.

Type the last sentence.

End your document and print a copy if you wish to compare it with the illustrated table.

To practice creating tables using Column Layout on your own, go on to the Self-Test on the next page.

SELF-TEST

For this Self-Test, create a document and name it
Passenger List.

```
Below is a list of passengers who require special diets.  Please use
this list to plan the flight menus for the next two days.

                       SUPER AIRLINES PASSENGER LIST

         NAME                    DATE           PLACE          COST

Albertson Party (10)          09/13/82       Oslo           $125.00
Burr Party (16)               09/13/82       Bern            160.00
Jerry Carrin                  09/13/82       Frankfurt        15.95
Heather Ogle                  09/14/82       Munich           10.50
Fred Rogers                   09/14/82       Rome             20.45
Ted Williams                  09/14/82       Istanbul         18.95
```

- Type the first two lines of text and the centered table heading.
- Use Column Layout to set up the columns in the table.
- Center all column headings.
- All columns but the COST column should be typed with flush left tabs. The COST column uses a decimal tab.

When you finish, print your document and compare it with the one on the previous page.

For Feedback, go on to the next page.

FEEDBACK

If your table does not look like the one illustrated, did you remember to:

☐ Center the table heading?

☐ Press LAYOUT after typing the table heading?

☐ Enter the correct tab settings for each column (including center tabs for the column headings)?

☐ Type the longest entry for each column when you set up the columns?

☐ Press COLUMN after typing the longest entry for each column except the last?

☐ Press ENTER, not RETURN, after typing the last entry in the table?

If you had trouble, review the segment and try the Self-Test again.

Prerequisites:
You must have completed
Segment 1 in this lesson

2

In the previous segment you learned how to create a table using the Column Layout function. In this segment you will learn how to make simple revisions to tables created with Column Layout by replacing numbers. You will also learn how to isolate columns in a table that was created using Column Layout in order to add and delete entries. Isolating columns helps when making revisions to large tables.

Your goal for this segment is to be able to isolate a column and to make additions and deletions within columns.

IT'S ALMOST PERFECT... JUST ADD 3 MORE NAMES AND THESE 2 CATEGORIES...

I CAN JUST ISOLATE THOSE COLUMNS AND REVISE THEM.

MAIN IDEA

You can revise entries within a column in two ways: by replacing characters in the text typing area or by isolating the column to add or delete numbers. If the revisions are minor, make the changes as you would in text. The only revisions you can make in the text typing area are substitutions. In other words, you can replace one number with another one or revise digits within a number.

If the revisions are major, you must isolate the column to make revisions.

To isolate a column:

1. Move the cursor to any character in the first line of the column you want to isolate. The cursor must be on the same line as the Begin Table code.

2. Press COLUMN.

3. Press ENTER.

To add an entry in an isolated column:

1. Move the cursor to the space where you want the entry to begin.
2. Type the new entry.
3. Press RETURN.

To delete an entry in an isolated column:

1. Place the cursor on the first character of the entry to be deleted.
2. Use the Delete function.

If you have enough information about revising entries within a column, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

Before you make revisions to a column, you must decide how complex the revisions will be.

If the revisions are minor and can be made by revising numbers or characters, make the changes as you would in text.

If the revisions are major, you must isolate the column in order to revise it. You may want to isolate the column for all revisions when you are working with a wide table or if you have many revisions.

If you are replacing an entry, you can use the Delete function to erase the old number, then type the new one. Or, you can use the Replace mode to replace existing numbers. If you need to refresh your memory on how to delete, refer to the *Job Aids*. If you need more information on using the Replace mode, see *Common Text Applications*, Lesson 4, Segment 3.

To isolate a column:

1. **Move the cursor to any character in the first line of the column you want to isolate.**

   The line must include the Begin Table code. If the column has a title or a heading that is part of the table, make sure the cursor is on that line. You may want to set Display Codes to Yes to find the Begin Table code. Once you have found the code, set Display Codes to No.

Cursor

⇄ Name	City	Amount
Smith	Denver	$2,565.00
Jones	Dallas	945.00
Collins	Monterey	1,475.00

2. **Press COLUMN.**

   Follow the prompt to revise.

   If you have Textpack 6, you will also see the message "Press SCREEN FORMAT to create or revise reference areas." Ignore this message for now. You will learn about column reference areas in Lesson 2 of this unit.

3. **Press ENTER.**

   The column you selected appears isolated on the left side of the screen. The prompt "When finished, press ENTER" appears.

   City

   Denver
   Dallas
   Monterey

   When finished, press ENTER.

   To add an entry in an isolated column:

   City

   Denver
   Boston ——— Dallas
   Monterey

1. **Move the cursor to the space where you want the entry to begin.**

City

Denver
Dallas
Monterey

2. **Type the new entry.**
   Don't worry if the entry on the same line moves over. It will adjust later.

City

Denver
Dallas
BostonMonterey

3. **Press RETURN.**
   The new entry appears as part of the column.

City

Denver
Dallas
Boston
Monterey

To delete an entry in an isolated column:

City

Denver
Delete Dallas ——— Dallas
Boston
Monterey

1. Place the cursor on the first character of the entry to be deleted.

City

Denver
Dallas
Boston
Monterey

2. Use the Delete function.
The entry is deleted from the column.
Note: If you want to replace this entry with another, do *not* delete the Carrier Return code after the entry. This way the space remains so you can replace it with the other entry.

City

Denver
Dallas
Boston
Monterey

Delete what?

Note: If the isolated column was set up with a decimal tab, flush right tab, or comma tab, you will see the Tab code (➔|) before each entry.

City

Denver
Boston
Monterey

To revise entries within a column, go on to the Demonstration.

DEMONSTRATION

Now you will have a chance to practice making
revisions to a table by revising numbers and isolating
a column to delete and add entries. Make the revisions
to the document as indicated below.

Choose Revise to access the following document:

Document name: Finance
Diskette name: TRAIN3

Go to the typing area.

The document is set up with decimal tabs to align
the numbers. A flush right tab could have been selected
to align the numbers. However, a decimal tab *must*
be selected if you intend to use the Displaywriter math
functions. (For more information on math functions,
see Lesson 3 of this unit.)

You can make the change in the 1979 column without
isolating the column.

**Move your cursor to the *1* in the *168,000* in the 1979
column. Because of the center tab, the cursor first
moves to the middle of the number, then back to the
$. Use BKSP, DEL or REPLACE to correct the
number. If you use DEL, be careful *not* to delete the
tab following the number.**

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$168,000 *$170,000*	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	100,000 *14,000*
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	153,000 *175,000*
December	261,000	211,000	206,000	101,000	170,000	169,000	

Type the number *170,000.*

Now you will make changes to the 1975 column. Since you are adding an entry, you must isolate the column.

Move the cursor to the Begin Table code (⇭) that is on the same line as the column headings.

Check the status line to be sure you have located the Begin Table code.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	~~$168,000~~ *$170,000 e*	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	~~100,000~~ *14,000 e*
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	(153,000) *175,000*
December	261,000	211,000	206,000	101,000	170,000	169,000	

Move the cursor to the first character of the first line of the column labeled *1975*.

In this case the first line is that of the title. Your cursor should be on the *1* in *1975*.

Press COLUMN and follow the prompt to press ENTER to revise the column.

If you have Textpack 6, you will also see the message "Press SCREEN FORMAT to create or revise reference areas." Ignore this message for now.

The 1975 column appears by itself on the screen.

Delete the second entry, *100,000*, **and replace it with** *14,000*.

Move the cursor to the beginning of the number *100,000*. Because of the center tab, the cursor first moves to the middle of the number, then back to the *1*. Delete the number but not the Carrier Return code.

The cursor should be on the decimal tab. If it is not, move the cursor to the decimal tab. Type the number *14,000*.

```
                 1975

        $120,000
          14,000
         100,000

         103,000

         104,000

         106,000

         107,000

         117,000

         128,000

         138,000

         148,000
         175,000
         153,000
```

Add the number *175,000* just before the last entry in the 1975 column. It will appear between the numbers *148,000* and *153,000*.

Place the cursor on the Tab code (→|) before the entry *153,000*, then tab twice to the decimal tab setting for this column.

Type the number *175,000*.

Press RETURN.

The entry is added to the column and *153,000* moves down to the next line.

Press ENTER.

The entire table returns to the screen. Because it is a wide table, you can only see the last four columns.

Press END.

1975
$120,000
14,000
~~100,000~~ *e*
103,000
104,000
106,000
107,000
117,000
128,000
138,000
148,000
175,000
(153,000)

Print your document if you wish to compare it with the one on the next page.

Remember to load 279.4 x 215.9 mm (11 x 8½ in.) paper into the printer. If you have a sheet-feed paper handler, load 279.4 x 215.9 mm (11 x 8½ in.) paper in the bottom drawer.

Your printed document should look like this:

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$170,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	14,000
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	175,000
December	261,000	211,000	206,000	101,000	170,000	169,000	153,000

To practice revising entries within a column on your own, go on to the Self-Test.

SELF-TEST

To start the Self-Test, go to the typing area of the
following document:

Document name: Finance Revisions

Diskette name: TRAIN3

The corrections you will make are shown on the
following document. Some of the corrections can be
made without isolating the columns.

After you have made the revisions, print the
document and compare it with the one in the Feedback
section.

Remember to load 279.4 x 215.9 mm (11 x 8½
in.) paper into the printer.

If you have a sheet-feed paper handler, load 279.4
x 215.9 mm (11 x 8½ in.) paper in the bottom drawer.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$170,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	~~120,000~~ *119,000* e	110,000	14,000
March	165,000	158,000	(147,000) *152,000*	141,000	123,000	113,000	103,000
April	166,000	159,000	~~148,000~~ e	142,000	124,000	114,000	104,000
May	~~168,000~~ e *160,000*	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	(165,000) *178,000*	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000 e	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	175,000
December	261,000	211,000	206,000	101,000	170,000	169,000	153,000

For Feedback, go on to the next page.

FEEDBACK

Your document should look like this:

			Sample Comparative Balance Sheet				
ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$170,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	119,000	110,000	14,000
March	165,000	158,000	152,000	141,000	123,000	113,000	103,000
April	166,000	159,000	147,000	142,000	124,000	114,000	104,000
May	160,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	178,000	148,000	147,000	128,000
September	250,000	195,000	191,000	165,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	175,000
December	261,000	211,000	206,000	101,000	170,000	169,000	153,000

If your document doesn't look like the illustration, did you:

☐ Press COLUMN then ENTER when isolating your column?

☐ Move the cursor to the line where you wanted to add a new entry?

☐ Add or delete carrier returns as needed?

☐ Move your cursor to the line where you wanted to delete an entry?

☐ Isolate the 1979 and 1978 columns to make the revisions?

Prerequisites:
You must have completed
all previous segments in
this lesson

3 In Segments 1 and 2 of this lesson you learned how to create a table using Column Layout and how to revise within a column of a table created with Column Layout. In this segment you will learn another method of revising tables created with Column Layout. You will learn how to add and delete entire columns.

Your goal for this segment is to be able to add and delete columns in a table created with Column Layout.

...I'LL DELETE THIS COLUMN...
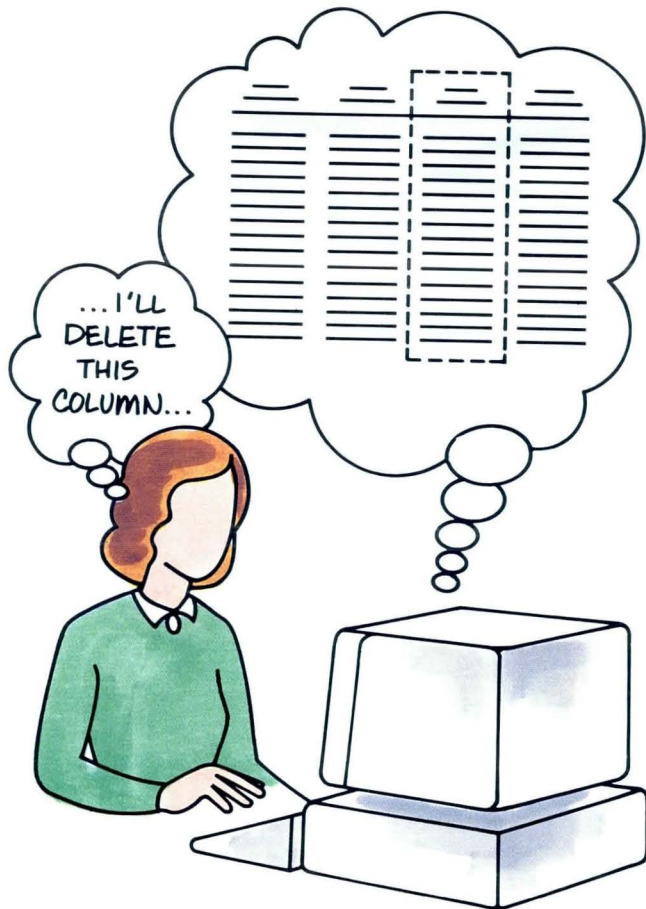
MAIN IDEA

To add an entire column to a table, follow these steps:

1. Move the cursor to the location where you want the new column to be inserted. Make sure the cursor is on the same line as the Begin Table code.
2. Press COLUMN twice.
3. Create the new column using the Column Layout instructions.
4. Press LAYOUT to adjust the spacing between columns.
5. Type the new column and press ENTER.

To delete an entire column, follow these steps:

1. Move the cursor to the first character of the first line of the column you want to delete. Make sure the cursor is on the same line as the Begin Table code.
2. Press DEL.
3. Press COLUMN.
4. Press ENTER.

To realign a table after deleting a column, follow these steps:

1. Place the cursor under the Begin Table code.
2. Press ENTER.
3. Press LAYOUT.
4. Press ENTER.

If you would like more information about deleting and adding columns in a table, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

You might want to add an entire column to a table. Instead of retyping the table, follow these steps to insert the column:

1. **Move the cursor to the location where you want the new column to appear.**

    The cursor must be on the same line as the Begin Table code.

    If you want the new column to be inserted between existing columns, place the cursor on the first character of the column following where you want the new column to appear.

    If you want to add a new column after the last column in the table, place the cursor on, or to the right of, the right margin symbol (»).

2. **Press COLUMN twice.**

    The first time you press COLUMN, the prompt "Press ENTER to revise column. Press COLUMN to create column" appears.

    If you have Textpack 6, you will also see the message "Press SCREEN FORMAT to create or revise reference areas." Ignore this message for now. You will learn about column reference areas in Lesson 2 of this unit.

    Press COLUMN again, since you are creating a new column. The instructions for Column Layout appear.

    You will also see the *a*'s that were previously set up for the columns.

To add a column between two
columns, place your cursor here.

1979		1981
$200.32		$204.56
201.98		207.74
204.81		212.97
210.34		215.89

To add a column after the last column
in a table, place your cursor here.

1979	1981 ↵	
$200.32	$204.56	
201.98	207.74	
204.81	212.97	
210.34	215.89	
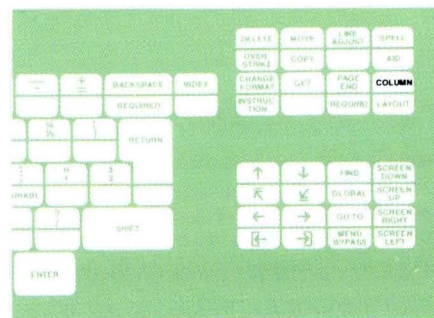
3. **Create the new column using the Column Layout instructions.**

   Type the longest entry in the new column. Include the tab settings required for this column. As you type, lowercase *o*'s appear instead of *a*'s.

Center tab Decimal tab

```
aaa|•|•aa  ooo|•|•oo              aaa|•|•aa

 1979                             1981

$200.32                          $204.56
 201.98                           207.74
 204.81                           212.97
 210.34                           215.89
```

```
<========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>

1. Type longest entry of the new column only (o's will appear).
            For Flush Left Column: Press TAB, then type entry.
     For Decimal-Aligned Column: Type number with decimal point.
             For Centered Column: Type entry, then press CTR.
         For Flush Right Column: Type entry, then press RET.
                 For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

4. **Press LAYOUT to adjust the spacing between columns.**

   The columns of *a*'s and *o*'s spread out equally between the right and left margins. Press ENTER. The Column Layout typing area appears.

```
aaa|•|•aa        ooo|•|•oo        aaa|•|•aa

 1979                             1981

$200.32                          $204.56
 201.98                           207.74
 204.81                           212.97
 210.34                           215.89
```

```
<========= READ ALL INSTRUCTIONS FOR COLUMN LAYOUT =========>

1. Type longest entry of the new column only (o's will appear).
            For Flush Left Column: Press TAB, then type entry.
     For Decimal-Aligned Column: Type number with decimal point.
             For Centered Column: Type entry, then press CTR.
         For Flush Right Column: Type entry, then press RET.
                 For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

5. Type the new column and press ENTER.
You will type only the new column in the Column Layout typing area. Therefore, the only column you will see as you type will be the new column you are creating.

1980
$203.01
206.22
211.87
213.01

When you finish typing the column, press ENTER. The existing table reappears on the screen with the new column correctly inserted.

1979	1980	1981
$200.32	$203.01	$204.56
201.98	206.22	207.74
204.81	211.87	212.97
210.34	213.01	215.89

To delete an entire column from a table, follow these steps:

1. **Move the cursor to the first character of the first line of the column you want to delete.**
   If the column has a heading or title that is part of the table, place the cursor on the line that includes the heading or title. The cursor must be on the same line as the Begin Table code.

2. **Press DEL.**
   The prompt "Delete what?" appears.

		Cursor
⇥ 1979	1980	1981
$200.32	$203.01	$204.56
201.98	206.22	207.74
204.81	211.87	212.97
210.34	213.01	215.89

3. **Press COLUMN.**
   The entire column is highlighted.

1979	1980	1981
		–
$200.32	$203.01	$204.56
201.98	206.22	207.74
204.81	211.87	212.97
210.34	213.01	215.89

Press ENTER to delete column.

4. **Press ENTER.**
   The column is deleted.

1979	1980
$200.32	$203.01
201.98	206.22
204.81	211.87
210.34	213.01

After you have deleted a column, you must realign the table. To realign a table after deleting a column, follow these steps:

1. **Place the cursor under the Begin Table code.**

2. **Press ENTER.**
   The Column Layout instructions appear.

3. **Press LAYOUT.**
   The columns of *a*'s realign.

4. **Press ENTER.**
   The columns realign and you are back in the typing area.

To add and delete columns, go on to the Demonstration.

DEMONSTRATION

In this Demonstration you will add a column to the
table below and then delete a column from the table.

Choose Revise to access the following document:

Document name: Passenger List 2
Diskette name: TRAIN3

```
Below is a list of passengers who require special diets.  Please use
this list to plan the flight menus for the next two days.

              SUPER AIRLINES PASSENGER LIST

         NAME                 DATE        DESTINATION         COST

Albertson Party (10)        09/13/82      Oslo              $125.00
Burr Party (16)             09/13/82      Bern               160/00
Jerry Carrin                09/13/82      Frankfurt           15.95
Heather Ogle                09/14/82      Munich              10.50
Fred Rogers                 09/14/82      Rome                20.45
Ted Williams                09/14/82      Istanbul            18.95
```

DIET

Low Sodium
Low Sodium
Diabetic
Low Fat
Low Fat
Diabetic

You will delete the COST column and add the DIET column.

To delete the COST column:

Place the cursor on the Begin Table code at the left margin.

The Begin Table code is on line 12, the same line as the column headings. If you can't find it, set Display Codes to Yes. Once you've located the Begin Table code, set Display Codes to No.

Place the cursor on the first character in the COST column.

Place the cursor on the *C*.

Press DEL.

The prompt "Delete what?" appears.

Press COLUMN.

The entire COST column is highlighted.

Press ENTER.

The column is deleted from the table.

It is not necessary to adjust the columns at this time. You will adjust the columns after you have added the DIET column.

Below is a list of passengers who require special diets. Please use
this list to plan the flight menus for the next two days.

<p align="center">SUPER AIRLINES PASSENGER LIST</p>

NAME	DATE	DESTINATION	COST
Albertson Party (10)	09/13/82	Oslo	$125.00
Burr Party (16)	09/13/82	Bern	160.00
Jerry Carrin	09/13/82	Frankfurt	15.95
Heather Ogle	09/14/82	Munich	10.50
Fred Rogers	09/14/82	Rome	20.45
Ted Williams	09/14/82	Istanbul	18.95

DIET

Low Sodium
Low Sodium
Diabetic
Low Fat
Low Fat
Diabetic

To add the DIET column:

Place the cursor on the right margin of line 12.

Your cursor should be on, or to the right of, the right margin symbol (»).

Press COLUMN.

The prompt "Press ENTER to revise column. Press COLUMN to create a column" appears.

If you have Textpack 6, you will also see the message "Press SCREEN FORMAT to create or revise reference areas." Ignore this message for now.

Press COLUMN again.

The Column Layout instructions appear. Follow the instructions to create the new column.

Type the longest entry in the new column. Do not press COLUMN.

Lowercase *o*'s appear as you type. Set a flush left tab and type the longest entry, which is ten characters long (*Low Sodium*). Set a center tab for the column heading. Do not press Column.

Press LAYOUT.

The *a*'s and *o*'s realign.

Press ENTER.

You are in the Column Layout typing area. You can now type the new column.

Tab to the Center symbol and type the column heading, *DIET*, including the underline.

Press RETURN twice.

Type the column.

When you are finished typing the column, press ENTER.

The DIET column is added to the table and the columns are adjusted for the deletion and addition.

DIET

Low Sodium
Low Sodium
Diabetic
Low Fat
Low Fat
Diabetic

End your document.

If you wish, print a copy of your document and compare it with the one illustrated.

```
Below is a list of passengers who require special diets.  Please use
this list to plan the flight menus for the next two days.

                    SUPER AIRLINES PASSENGER LIST

       NAME                  DATE        DESTINATION        DIET

Albertson Party (10)       09/13/82      Oslo            Low Sodium
Burr Party (16)            09/13/82      Bern            Low Sodium
Jerry Carrin               09/13/82      Frankfurt       Diabetic
Heather Ogle               09/14/82      Munich          Low Fat
Fred Rogers                09/14/82      Rome            Low Fat
Ted Williams               09/14/82      Istanbul        Diabetic
```

*To practice adding and deleting columns on your own,
go on to the Self-Test.*

SELF-TEST

In this Self-Test you will add columns to and delete
columns from the Basketball All-Star Team table.
Choose Revise to access the following document:
Document name: Basketball 2
Diskette name: TRAIN3

```
                    MID-EASTERN CONFERENCE

                  BASKETBALL ALL-STAR TEAM

                        1981-1982


Players              School            Height        Class


David Cannon         Washington        6-2           Senior

Mike Frazier         Lincoln           5-11          Senior

Phil Harbert         West              6-7           Senior

Larry Horn           Lincoln           6-0           Senior

Rick Lindsey         Kennedy           5-10          Junior

Kevin Murphy         Jefferson         5-9           Junior

Lyle Peterson        South             6-2           Senior

Gary Sanchez         Central           6-1           Senior

Terry Smalley        Washington        5-11          Senior
```

College
Oklahoma City
Not Applicable
West Texas State
West Texas State
Not Applicable
Not Applicable
Kansas University
U.C.L.A.
Baylor University

MID-EASTERN CONFERENCE

BASKETBALL ALL-STAR TEAM

1981-1982

Players	School	Height	Class
David Cannon	Washington	6-2	Senior
Mike Frazier	Lincoln	5-11	Senior
Phil Harbert	West	6-7	Senior
Larry Horn	Lincoln	6-0	Senior
Rick Lindsey	Kennedy	5-10	Junior
Kevin Murphy	Jefferson	5-9	Junior
Lyle Peterson	South	6-2	Senior
Gary Sanchez	Central	6-1	Senior
Terry Smalley	Washington	5-11	Senior

College
Oklahoma City
Not Applicable
West Texas State
West Texas State
Not Applicable
Not Applicable
Kansas University
U.C.L.A.
Baylor University

- Delete the Class column.
- Add the column titled *College* after the Height column. Use a flush left tab. The longest entry is 17 characters. Do not center the column heading. Carrier return twice after you type the heading.

End and print a copy of your document, then compare it with the one in the Feedback section.

For Feedback, go on to the next page.

FEEDBACK

Your document should look like this:

```
                        MID-EASTERN CONFERENCE

                      BASKETBALL ALL-STAR TEAM

                              1981-1982


        Players              School          Height       College


        David Cannon         Washington      6-2          Oklahoma City

        Mike Frazier         Lincoln         5-11         Not Applicable

        Phil Harbert         West            6-7          West Texas State

        Larry Horn           Lincoln         6-0          West Texas State

        Rick Lindsey         Kennedy         5-10         Not Applicable

        Kevin Murphy         Jefferson       5-9          Not Applicable

        Lyle Peterson        South           6-2          Kansas University

        Gary Sanchez         Central         6-1          U.C.L.A.

        Terry Smalley        Washington      5-11         Baylor University
```

If your document doesn't look like the one above, did you remember to:

☐ Press COLUMN after pressing DEL to delete the entire Class column?

☐ Place the cursor on the right margin symbol when adding your new column?

☐ Realign your table after you finished making revisions?

Prerequisites:
You must have completed
all previous segments in
this lesson

4 In the last segment you learned how to revise tables created with Column Layout by adding and deleting columns. In this segment you will learn to move and copy columns within tables created with Column Layout.

Your goal for this segment is to be able to move and copy columns in a table created with Column Layout.

I'LL MOVE THIS TO THE FIRST COLUMN...
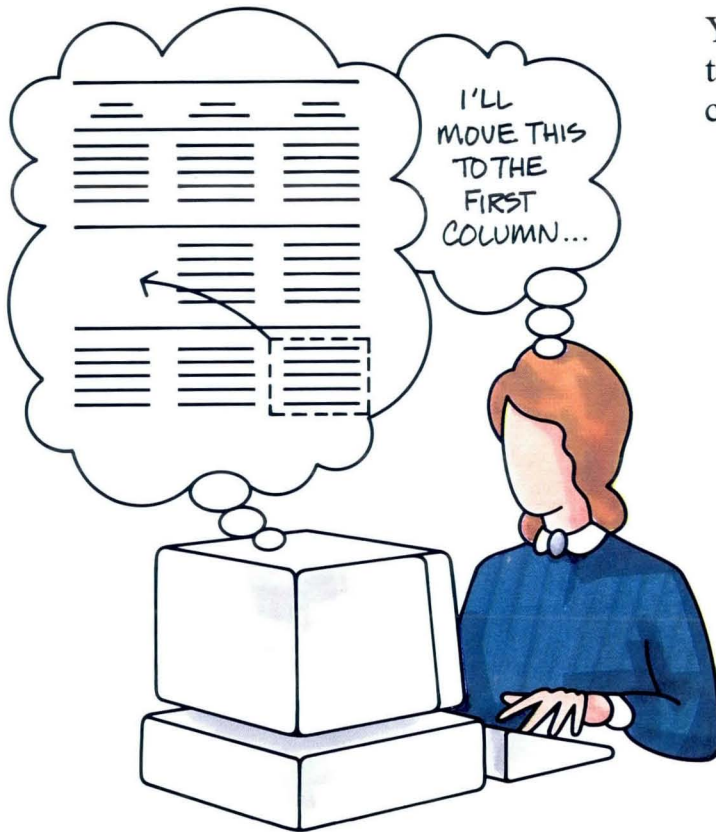
MAIN IDEA

To move or copy an entire column, follow these steps:

1. Move the cursor to the first character of the first line of the column you want moved or copied.
2. Press MOVE or COPY.
3. Press COLUMN.
4. Move the cursor to the place where the column is to be inserted.
5. Press ENTER.

You cannot move or copy a column to an area that is not already designated as a table.

To realign a table after moving or copying a column, follow these steps:

1. Place the cursor under the Begin Table code.
2. Press ENTER.
3. Press LAYOUT.
4. Press ENTER.

If you have enough information about moving and copying columns in a table, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

To move or copy an entire column, follow these steps:
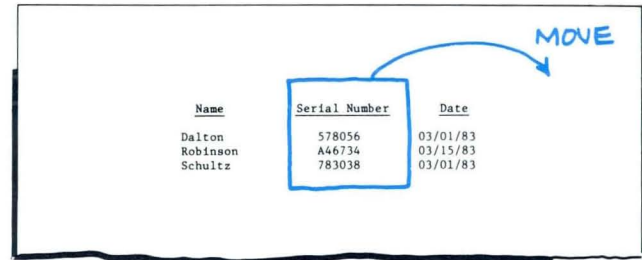
1. **Move the cursor to the first character of the first line of the column you want moved or copied.**
   If the column has a heading or title that is part of the table, place the cursor on the first character of the heading or title. The cursor must be on the same line as the Begin Table code.

2. **Press MOVE or COPY.**
   The prompt "Move what?" or "Copy what?" appears.

3. **Press COLUMN.**
   The entire column is highlighted. The prompt "To where?" appears.

4. Move the cursor to the place where the column is to be inserted.

The area you are moving or copying to must already be established as a table.

Cursor

Name	Serial Number	Date ↵
Dalton	578056	03/01/83
Robinson	A46734	03/15/83
Schultz	783038	03/01/83

To where?

5. Press ENTER.

The column is moved or copied.

Name	Date	Serial Number
Dalton	03/01/83	578056
Robinson	03/15/83	A46734
Schultz	03/01/83	783038

After you have moved or copied a column, you must realign your table. To realign a table after moving or copying a column, follow these steps:

1. **Place the cursor under the Begin Table code of the revised table.**
2. **Press ENTER.**
   The Column Layout instructions appear.
3. **Press LAYOUT.**
   The *a*'s realign.
4. **Press ENTER.**
   The columns realign and you are back in the typing area.

To move and copy columns in a table, go on to the Demonstration.

DEMONSTRATION

In the following Demonstration you will move a column within a table and copy a column from one table into an existing table.

Choose Revise to access the following document:

Document name: Passenger List 3
Diskette name: TRAIN3

First, you will move the **NAME** column between the **DATE** and **DESTINATION** columns in the first table.

Below is a list of passengers who require special diets. Please use
this list to plan the flight menus for the dates listed.

SUPER AIRLINES PASSENGER LIST

MOVE TO HERE

NAME	DATE	DESTINATION	DIET
Albertson Party (10)	09/13/82	Oslo	Low Sodium
Burr Party (16)	09/13/82	Bern	Low Sodium
Jerry Carrin	09/13/82	Frankfurt	Diabetic
Heather Ogle	09/14/82	Munich	Low Fat
Fred Rogers	09/14/82	Rome	Low Fat
Ted Williams	09/14/82	Istanbul	Diabetic

COPY INTO NEW TABLE

NAME	DATE	DESTINATION
Albertson Party (10)	09/20/82	Stockholm
Burr Party (16)	09/20/82	Geneva
Jerry Carrin	09/20/82	Paris
Heather Ogle	09/21/82	Vienna
Fred Rogers	09/21/82	Florence
Ted Williams	09/21/82	London

To move the NAME column:

Place the cursor under the Begin Table code of the first table.

The Begin Table code is on line 12. Make sure your cursor is on the Begin Table code, not the Format Change code. This step is included to ensure that your cursor is on the same line with the Begin Table code.

Place the cursor under the *N* in *NAME*.

Press MOVE.

The prompt "Move what?" appears.

Press COLUMN.

The NAME column is highlighted and the prompt "To where?" appears.

Place the cursor under the *D* in *DESTINATION* in the *first* table.

Press ENTER.

The NAME column appears in the new position between *DATE* and *DESTINATION*.

Below is a list of passengers who require special diets. Please use
this list to plan the flight menus for the dates listed.

SUPER AIRLINES PASSENGER LIST

MOVE TO HERE

NAME	DATE	DESTINATION	DIET
Albertson Party (10)	09/13/82	Oslo	Low Sodium
Burr Party (16)	09/13/82	Bern	Low Sodium
Jerry Carrin	09/13/82	Frankfurt	Diabetic
Heather Ogle	09/14/82	Munich	Low Fat
Fred Rogers	09/14/82	Rome	Low Fat
Ted Williams	09/14/82	Istanbul	Diabetic

COPY INTO NEW TABLE

NAME	DATE	DESTINATION
Albertson Party (10)	09/20/82	Stockholm
Burr Party (16)	09/20/82	Geneva
Jerry Carrin	09/20/82	Paris
Heather Ogle	09/21/82	Vienna
Fred Rogers	09/21/82	Florence
Ted Williams	09/21/82	London

You must realign the table as follows:

Place your cursor under the Begin Table code of the first table.

Make sure the cursor is on the Begin Table code, not the Format Change code.

Press ENTER.

The Column Layout instructions appear.

Press LAYOUT.

The *a*'s realign.

Press ENTER.

The columns are realigned.

Next, you will copy the DIET column into the second table.

To copy the DIET column:

Place the cursor under the *D* in *DIET*.

Again, your cursor must be on the same line with the Begin Table code.

Below is a list of passengers who require special diets. Please use
this list to plan the flight menus for the dates listed.

SUPER AIRLINES PASSENGER LIST

MOVE TO HERE

NAME	DATE	DESTINATION	DIET
Albertson Party (10)	09/13/82	Oslo	Low Sodium
Burr Party (16)	09/13/82	Bern	Low Sodium
Jerry Carrin	09/13/82	Frankfurt	Diabetic
Heather Ogle	09/14/82	Munich	Low Fat
Fred Rogers	09/14/82	Rome	Low Fat
Ted Williams	09/14/82	Istanbul	Diabetic

COPY INTO NEW TABLE

NAME	DATE	DESTINATION
Albertson Party (10)	09/20/82	Stockholm
Burr Party (16)	09/20/82	Geneva
Jerry Carrin	09/20/82	Paris
Heather Ogle	09/21/82	Vienna
Fred Rogers	09/21/82	Florence
Ted Williams	09/21/82	London

Press COPY.

The prompt "Copy what?" appears.

Press COLUMN.

The DIET column is highlighted and the prompt "To where?" appears.

Place the cursor under the *D* in *DATE* in the second table.

Press ENTER.

The DIET column appears in the new position.

Now you must realign the second table, as follows:

Place your cursor under the Begin Table code of the second table.

Make sure the cursor is on the Begin Table code, not the Format Change code.

Press ENTER.

The Column Layout instructions appear.

Press LAYOUT.

The *a*'s realign.

Press ENTER.

The columns are realigned.

Press END.

If you wish, print a copy of your document and compare it with the one on the next page.

Your document should look like this:

Below is a list of passengers who require special diets. Please use
this list to plan the flight menus for the dates listed.

SUPER AIRLINES PASSENGER LIST

DATE	NAME	DESTINATION	DIET
09/13/82	Albertson Party (10)	Oslo	Low Sodium
09/13/82	Burr Party (16)	Bern	Low Sodium
09/13/82	Jerry Carrin	Frankfurt	Diabetic
09/14/82	Heather Ogle	Munich	Low Fat
09/14/82	Fred Rogers	Rome	Low Fat
09/14/82	Ted Williams	Istanbul	Diabetic

NAME	DIET	DATE	DESTINATION
Albertson Party (10)	Low Sodium	09/20/82	Stockholm
Burr Party (16)	Low Sodium	09/20/82	Geneva
Jerry Carrin	Diabetic	09/20/82	Paris
Heather Ogle	Low Fat	09/21/82	Vienna
Fred Rogers	Low Fat	09/21/82	Florence
Ted Williams	Diabetic	09/21/82	London

*To practice moving and copying columns in a table on
your own, go on to the Self-Test.*

SELF-TEST

In this Self-Test you will use the Move and Copy
functions to revise tables. Choose Revise to access the
following document:
    Document name: Basketball 3
    Diskette name: TRAIN3

MID-EASTERN CONFERENCE
BASKETBALL ALL-STAR TEAM
1981-1982

MOVE TO HERE

COPY TO HERE

Players	School	Class	College
David Cannon	Washington	Senior	Oklahoma City
Mike Frazier	Lincoln	Junior	Not Applicable
Phil Harbert	West	Senior	West Texas State
Larry Horn	Lincoln	Senior	West Texas State
Rick Lindsey	Kennedy	Junior	Not Applicable
Kevin Murphy	Jefferson	Junior	Not Applicable
Lyle Peterson	South	Senior	Kansas University
Gary Sanchez	Central	Senior	U.C.L.A.
Terry Smalley	Washington	Senior	Baylor University

Players	Height	Age
David Cannon	6-2	18
Mike Frazier	5-11	16
Phil Harbert	6-7	17
Larry Horn	6-0	18
Rick Lindsey	5-10	16
Kevin Murphy	5-9	17
Lyle Peterson	6-2	18
Gary Sanchez	6-1	18
Terry Smalley	5-11	18

Numeric Tables

- In the first table, move the Class column between the *Players* and *School* columns.
- Copy the School column from the first table into the second table, between the *Players* and *Height* columns.
- Realign both tables.

End the document. If you wish, print a copy of your document and compare it with the one in the Feedback.

For Feedback, go on to the next page.

FEEDBACK

Your document should look like this:

```
                        MID-EASTERN CONFERENCE
                        BASKETBALL ALL-STAR TEAM
                              1981-1982

    Players           Class         School          College

    David Cannon      Senior        Washington      Oklahoma City
    Mike Frazier      Junior        Lincoln         Not Applicable
    Phil Harbert      Senior        West            West Texas State
    Larry Horn        Senior        Lincoln         West Texas State
    Rick Lindsey      Junior        Kennedy         Not Applicable
    Kevin Murphy      Junior        Jefferson       Not Applicable
    Lyle Peterson     Senior        South           Kansas University
    Gary Sanchez      Senior        Central         U.C.L.A.
    Terry Smalley     Senior        Washington      Baylor University




    Players               School          Height        Age

    David Cannon          Washington      6-2           18
    Mike Frazier          Lincoln         5-11          16
    Phil Harbert          West            6-7           17
    Larry Horn            Lincoln         6-0           18
    Rick Lindsey          Kennedy         5-10          16
    Kevin Murphy          Jefferson       5-9           17
    Lyle Peterson         South           6-2           18
    Gary Sanchez          Central         6-1           18
    Terry Smalley         Washington      5-11          18
```

If your document doesn't look like the one on the previous page, did you remember to:

☐ Press COLUMN after pressing MOVE or COPY to move or copy the entire column?

☐ Realign your tables after you finished making revisions?

Prerequisites:
You must have completed
all previous segments in
this lesson

5

In previous segments of this lesson you learned how to create tables using Column Layout. You also learned how to revise tables and add, delete, move, and copy columns. In this lesson you will learn how to revise the table formats. Revising table formats will properly realign a table within a document that has had margins changed.

Your goal for this segment is to be able to realign columns and reformat tables created with Column Layout.

BOB...
WE NEED TO
REFORMAT THESE
TABLES TO AN
11"x 8½"
HORIZONTAL
PAGE...
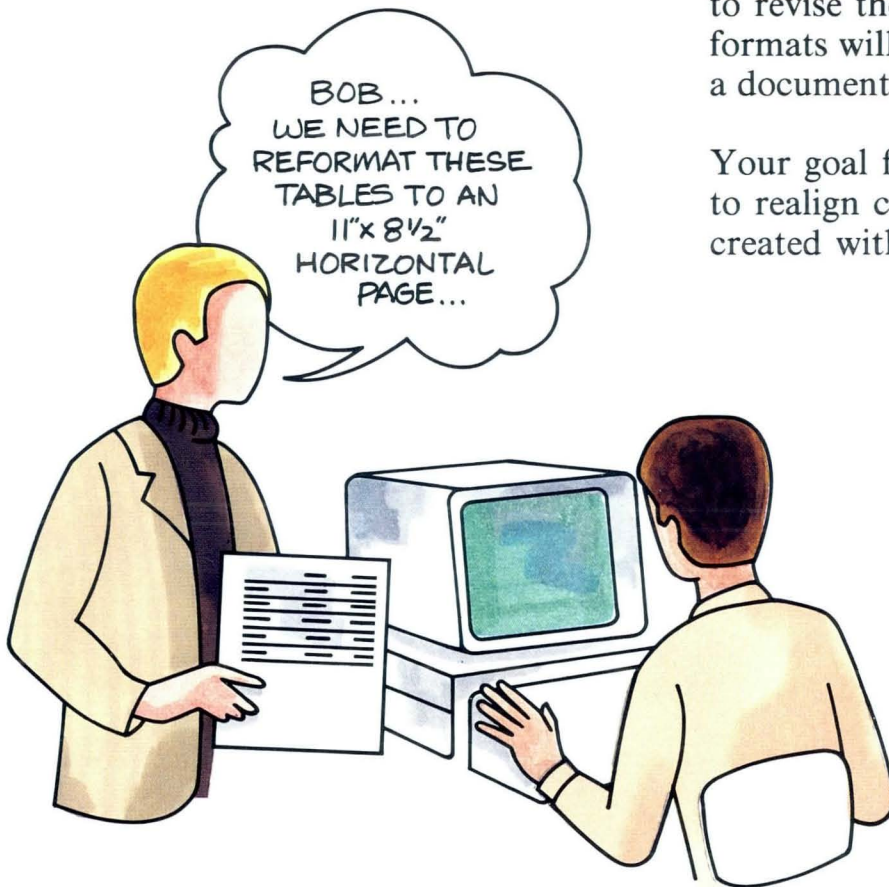
MAIN IDEA

If changing margins in a document affects the overall format of the table, the Format Change code preceding the table instruction must also be revised. When you change the margins in the document format, the margins in a table do not change because of the Format Change code that always precedes the table. Follow these steps to change the document format and table format:

1. Change the document format, as necessary.

2. In the typing area, place the cursor under the Format Change code in each table within the document and press ENTER.

3. Change the margins in the Margins and Tabs menu and press ENTER.

4. Place the cursor under the Begin Table code.

5. Press ENTER, then LAYOUT, and ENTER again.

6. If text also follows the table, place the cursor under the Format Change code after the End Table code and press ENTER.

7. Change the margins in the Margins and Tabs menu and press ENTER.

8. Paginate the document after you have made all the changes.

If you have enough information about revising formats, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

When you change the margins in the document, the margins in a table do not change because of the Format Change code preceding the table. However, you do not have to retype the table. You merely reformat it. Follow these steps:

1. **Change the document format, as necessary.**
   Choose Change Document Format in the Create or Revise Document menu to make changes.

```
                    CREATE OR REVISE DOCUMENT

                                      YOUR     POSSIBLE
ID  ITEM                              CHOICE   CHOICES

a   Document Comment
b   Change Document Format
c   Change Alternate Format
d   Preserve Page Numbers            2        1 = Yes  2 = No




When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ¤
```

2. **In the typing area, place the cursor under the Format Change code in each table within the document and press ENTER.**
   The Format Selection menu appears.

Format change

```
The following is the list of contributions
made for the months of January, February
and March.

Œ January           February            March

$1,225.00         $   975.00          $1,345.00
   985.00           1,550.00             880.00
 2,345.00             675.00            $575.00

These figures represent collections from
three precincts.
```

3. **Change the margins in the Margins and Tabs menu and press ENTER.**
   The margins in your table should be compatible with the new margins in your document.
   Note: You do not change the tabs for the table in the Margins and Tabs menu. The system will reset the tabs when you adjust the table in Step 5.

4. **Place the cursor under the Begin Table code.**
   The Begin Table code is highlighted.

5. **Press ENTER, then LAYOUT, and ENTER again.**
   The Column Layout instructions appear when you press ENTER. When you press LAYOUT, the columns rearrange according to the new format. When you press ENTER the second time, the system returns to the typing area.

6. **If text also follows the table, place the cursor under the Format Change code after the End Table code and press ENTER.**
   Set Display Codes to Yes, if necessary, to find the Format Change code.

7. **Change the margins in the Margins and Tabs menu.**

8. **Paginate the document after you have made all the changes.**
   Pagination adjusts the text portion of the document.

Note: If you have more than one table format, be sure to revise all the Format Change codes affected.

The following is the list of contributions made for the months of January, February and March.

January	February	March
$1,225.00	$ 975.00	$1,345.00
985.00	1,550.00	880.00
2,345.00	675.00	$575.00

These figures represent collections from three precincts.

Format change

To realign columns and reformat tables created using Column Layout, go on to the Demonstration.

DEMONSTRATION 1

There are two Demonstrations and a Self-Test for this segment. The first Demonstration and the Self-Test give you practice on only the topic covered in this segment — revising formats. The second Demonstration, which is optional, gives you practice on the various methods you have learned for revising tables *and* formats.

In the following Demonstration you will revise the document format and table format so that the document below fits on a 215.9 x 279.4 mm (8½ x 11 in.) page. It is currently set up for a 279.4 x 215.9 mm (11 x 8½ in.) page as illustrated.

Below, you will see a comparative report of the net earnings of the Products Division. Notice that the figures from 1982 are substantially higher than those from previous years.

Line Items	1982	1981	1980
Gross Income			
Sales	$7,000,000	$5,000,000	$4,000,000
Service	400,000	300,000	200,000
	$7,400,000	$5,300,000	$4,200,000
Cost of Sales	2,000,000	1,500,000	1,300,000
Cost of Service	150,000	100,000	75,000
Administrative Expenses	1,000,000	750,000	500,000
Interest on Debt	10,000	9,000	8,000
Income on Interest	500,000	400,000	300,000
Earnings before Taxes	4,740,000	3,341,000	2,617,000
Income Taxes	400,000	300,000	200,000
Net Earnings	$4,340,000	$3,041,000	$2,417,000

Based on current trends, we expect 1983 sales to surpass 1982 sales. The increase we have realized is largely due to the effective marketing programs we have developed.

Choose Revise to access the following document:

Document name: Comparative Report
Diskette name: TRAIN3

Select Change Document Format in the Create or Revise Document menu.

Change the margins to 18 and 90.

Choose Change Page Format and change paper size to 215.9 x 279.4 mm (8½ x 11 in.).

Change the last typing line to 60.

If you are using a sheet-feed paper handler, change Printing Paper Source to feed paper from the top drawer. Be sure that 215.9 x 279.4 mm (8½ x 11 in.) paper is loaded in the top drawer.

Go to the typing area.

Notice that the left margin of the text is at 18. The table is not.

Now you will change the margins for the table.

Place your cursor under the Format Change code for the table and press ENTER.

The Format Change code is at the beginning of line 10.

You may want to set Display Codes to Yes to find the Format Change code. Be sure to set Display Codes to No after you have found the code.

The Format Selection menu appears when you press ENTER.

Choose Change Margins and Tabs.

You will see the message "A table follows. Tabs should not be changed." This message is just a reminder that you do not change the tabs for the table in the Margins and Tabs menu.

Change the margins to 18 and 90.

Press ENTER to return to the typing area.

Place the cursor under the Begin Table code, which is also on line 10.

Press ENTER.

The Column Layout instructions appear.

Press LAYOUT.

The columns realign according to the new format. Your table will now fit on a 215. 9 x 279.5 mm (8½ x 11 in.) page.

Press ENTER to return to the typing area.

You must now change the Format Change code after the table.

Place your cursor under the Format Change code after the End Table code on line 26.

Be sure your cursor is under the Format Change code.

Press ENTER.

Change the margins to 18 and 90 in the Margins and Tabs menu.

Press ENTER to return to the typing area.

End your document.

Paginate the document.

Pagination readjusts the text portion of the document.

Print a copy of your document if you wish to compare it with the one on the next page.

Your table should look like this:

```
        Below, you will see a comparative report of the net earnings of the
Products Division.  Notice that the figures from 1982 are substantially
higher than those from previous years.

    Line Items                      1982            1981            1980

    Gross Income
      Sales                    $7,000,000      $5,000,000      $4,000,000
      Service                     400,000         300,000         200,000
                               $7,400,000      $5,300,000      $4,200,000

    Cost of Sales               2,000,000       1,500,000       1,300,000
    Cost of Service               150,000         100,000          75,000
    Administrative Expenses     1,000,000         750,000         500,000
    Interest on Debt               10,000           9,000           8,000
    Income on Interest            500,000         400,000         300,000
    Earnings before Taxes       4,740,000       3,341,000       2,617,000
    Income Taxes                  400,000         300,000         200,000

    Net Earnings               $4,340,000      $3,041,000      $2,417,000

        Based on current trends, we expect 1983 sales to surpass 1982
sales.  The increase we have realized is largely due to the effective
marketing programs we have developed.
```

To revise formats and columns on another document,
go on to the next page.

DEMONSTRATION 2

In this Demonstration you will put together the methods you have learned for revising tables and formats. You will be making revisions within columns, adding and deleting columns, and changing formats to the document on the next page.

Your boss decides that the table must be updated to include the figures from 1982 and omit the figures from the oldest four years. She would also like the table to fit on a 215.9 x 279.4 mm (8½ x 11 in.) page.

Choose Revise to access the following document:

Document name: Finance Table 2
Diskette name: TRAIN3

Stop at the Create or Revise Document menu.

First, you will change the margins for the document.

Select Change Document Format and change the margins to 18 and 90.

Choose Change Page Format and change paper size to 215.9 x 279.4 mm (8½ x 11 in.).

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1982	1981	1980	1979	1978	1977	1976	1975
January	$219,000	$189,000	$173,000	170,000 $168,000 e	$159,000	$140,000	$130,000	$120,000
February	617,000	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	173,000	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	211,000	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	178,000	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	102,000	169,000	162,000	171,000 151,000 e	145,000	127,000	117,000	107,000
July	231,000	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	125,000	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	110,000	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	174,000	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	200,000	260,000	207,000 (210,000)	205,000	100,000	169,000	168,000	153,000
December	197,900	261,000		206,000	101,000	170,000	169,000	154,000

Change Last Typing Line to 60.

If you are using a sheet-feed paper handler, change Printing Paper Source to feed paper from the top drawer.

Be sure that 215.9 x 279.4 mm (8½ x 11 in.) paper is loaded in the top drawer.

Go to the typing area.

The left margin for the text is now at 18, but the table is not.

Now you will change the margins for the table.

Place your cursor under the Format Change code for the table and press ENTER.

The Format Change code is at the beginning of line 17. Use the cursor movement keys to place the cursor on the Format Change code.

Choose Change Margins and Tabs.

The message "A table follows. Tabs should not be changed" appears.

Change the margins to 18 and 90.

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1982	1981	1980	1979	1978	1977	1976	1975
January	$219,000	$189,000	$173,000	$ 170,000 $168,000	$159,000	$140,000	$130,000	$120,000
February	617,000	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	173,000	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	211,000	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	178,000	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	102,000	169,000	162,000	171,000 151,000	145,000	127,000	117,000	107,000
July	231,000	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	125,000	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	110,000	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	174,000	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	200,000	260,000	207,000 210,000	205,000	100,000	169,000	168,000	153,000
December	197,900	261,000		206,000	101,000	170,000	169,000	154,000

Press ENTER to return to the typing area.

The left margin for the table is now at 18 also.

The table extends past the new right margin of 90. The system will correct this when you realign the table after you make all the revisions.

First you will delete the 1978, 1977, 1976, and 1975 columns.

Place your cursor under the *1* in *1978*.

Your cursor is already on the same line with the Begin Table code.

Press DEL.

The prompt "Delete what?" appears.

Press COLUMN.

The entire 1978 column is highlighted.

Press ENTER.

The 1978 column is deleted and the other columns move over.

Follow the same steps to delete the 1977, 1976, and 1975 columns.

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1982	1981	1980	1979	1978	1977	1976	1975
January	$219,000	$189,000	$173,000	$170,000 $168,000	$159,000	$140,000	$130,000	$120,000
February	617,000	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	173,000	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	211,000	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	178,000	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	102,000	169,000	162,000	171,000 151,000	145,000	127,000	117,000	107,000
July	231,000	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	125,000	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	110,000	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	174,000	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	200,000	260,000	207,000 210,000	205,000	200,000	169,000	168,000	153,000
December	197,900	261,000		206,000	101,000	170,000	169,000	154,000

Now you will realign the table.

Place the cursor under the Begin Table code at the beginning of line 17.

Press ENTER.

The Column Layout instructions appear.

Press LAYOUT.

The *a*'s realign.

Press ENTER.

The entire table is realigned.

Next you will make the revisions in the 1979 column.

Place your cursor under the *1* in *168,000*. Use BKSP, DEL, or REPLACE to correct the number.

Be sure you do not delete the tab following the number.

Place your cursor under the *1* in *151,000*. Use BKSP, DEL, or REPLACE to correct the number.

Be sure you do not delete the tab following the number.

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1982	1981	1980	1979	1978	1977	1976	1975
January	$219,000	$189,000	$173,000	$170,000 ~~$168,000~~	$159,000	$140,000	$130,000	$120,000
February	617,000	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	173,000	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	211,000	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	178,000	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	102,000	169,000	162,000	171,000 ~~151,000~~	145,000	127,000	117,000	107,000
July	231,000	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	125,000	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	110,000	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	174,000	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	200,000	260,000	207,000 (210,000)	205,000	100,000	169,000	168,000	153,000
December	197,900	261,000		206,000	101,000	170,000	169,000	154,000

Now you will make the revisions to the 1980 column. Since you are adding an entry to the column, you must isolate the column.

Place the cursor under the *1* in *1980*.

Press COLUMN and follow the prompt to press ENTER to revise the column.

The 1980 column appears by itself on the screen.

Add the number *207,000* just before the last entry in the 1980 column.

Place the cursor on the same line with the entry *210,000*, then tab twice to the decimal tab setting for this column.

Type *207,000*.

Press RETURN.

The new entry is added to the column and *210,000* moves down to the next line.

Press ENTER to return to the regular typing area.

Now you will add the column for 1982.

1981	1980
$189,000	$173,000
162,000	155,000
165,000	158,000
166,000	159,000
168,000	161,000
169,000	162,000
189,000	182,000
200,000	190,000
250,000	195,000
255,000	205,000
260,000	210,000	*207,000*
261,000	

Make sure the cursor is on the same line as the Begin Table code (line 17).

Place the cursor under the *1* of *1981*.

Press COLUMN.

The prompt "Press ENTER to revise column. Press COLUMN to create a column" appears.

Press COLUMN to create a new column.

The Column Layout instructions appear. Follow the instructions to create a new column.

Set up the new column on a *decimal* tab and allow for the centered heading.

The longest entry is eight characters (*$219,000*). Remember to type $219,000, then type a period and press CTR. You will see *o*'s, not *a*'s, when you type the longest entry.

Press LAYOUT.

The *a*'s and *o*'s realign.

Press ENTER.

The Column Layout typing area appears. You will now type the new column.

Type the column heading, *1982*, **including the underline.**

Press RETURN *once*.

The line spacing for the table is set at double spacing.

Type the column.

Be sure to tab over to the *decimal* tab to type the entries.

When you are finished typing the new column, press ENTER.

The *1982* column is correctly inserted into the existing table.

End your document.

Paginate the document to realign the text.

If you wish, print a copy of your document and compare it with the document on the next page.

Most businesses will ha
accounting period -- a state
containing important informat
a statement of source and app
and accounts payable. Howeve:
Any business can reasonably b

Sample Comparative Balance Sh

1982	ASSETS	1981
219,000	January	$189,000
617,000	February	162,000
173,000	March	165,000
211,000	April	166,000
178,000	May	168,000
102,000	June	169,000
231,000	July	189,000
125,000	August	200,000
110,000	September	250,000
174,000	October	255,000
200.000	November	260,000
197,900	December	261,000

Your document should look like this:

> Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.
>
> Sample Comparative Balance Sheet

ASSETS	1982	1981	1980	1979
January	$219,000	$189,000	$173,000	$170,000
February	617,000	162,000	155,000	144,000
March	173,000	165,000	158,000	147,000
April	211,000	166,000	159,000	148,000
May	178,000	168,000	161,000	150,000
June	102,000	169,000	162,000	171,000
July	231,000	189,000	182,000	161,000
August	125,000	200,000	190,000	181,000
September	110,000	250,000	195,000	191,000
October	174,000	255,000	205,000	200,000
November	200,000	260,000	207,000	205,000
December	197,900	261,000	210,000	206,000

To revise formats on your own, go on to the Self-Test.

SELF-TEST

In this Self-Test you will revise the document format and the table format for the following table.

　　Choose Revise to access the following document:
　　Document name: Perfect Attendance
　　Diskette name: TRAIN3

```
PERFECT ATTENDANCE
1981-1982 School Year

        Inspite of all the inclement weather, and all the illnesses which can abound as a result, the following
students have had perfect attendance during the 1981-1982 school year.


        Student Name                    Class            Room No.          Section           Group

James Brown                       Sophomore              151              10-1             10AB
Martha Chapin                     Senior                 314              12-1             12CD
Cal Cottleford                    Junior                 203              11-2             11AB
Cornelia Dalton                   Freshman               101               9-1              9AB
Donald Dunwoody                   Sophomore              178              10-B             10CD
Anne-Marie Easton                 Sophomore              182              10-1             10AB
Evelyn Folsom                     Freshman               110               9-2              9CD
Lewis Gregory                     Senior                 312              12-2             12CD
Mary Margaret Murphy              Junior                 217              10-2             10CD
Ralph Rubin                       Senior                 312              12-1             12AB
John Wilkinson                    Freshman               103               9-2              9CD

        Each one of these students should be commended.  At the next Student Assembly, let's have each one of them
stand up for a round of applause.
```

- Change the margins for the text before the table to 18 and 90.
- Change the paper size to 215.9 x 279.4 mm (8½ x 11 in.).
- Change Last Typing Line to 60.
- Change Printing Paper Source to Top.
- Change the margins for the table to 18 and 90.
- Change the margins for the text after the table to 18 and 90.
- Paginate and print the document and compare it with the one in the Feedback.

For Feedback, go on to the next page.

FEEDBACK

Your table should look like the following:

PERFECT ATTENDANCE
1981–1982 School Year

    Inspite of all the inclement weather, and all the illnesses which can abound as a result, the following students have had perfect attendance during the 1981–1982 school year.

Student Name	Class	Room No.	Section	Group
James Brown	Sophomore	151	10–1	10AB
Martha Chapin	Senior	314	12–1	12CD
Cal Cottleford	Junior	203	11–2	11AB
Cornelia Dalton	Freshman	101	9–1	9AB
Donald Dunwoody	Sophomore	178	10–B	10CD
Anne–Marie Easton	Sophomore	182	10–1	10AB
Evelyn Folsom	Freshman	110	9–2	9CD
Lewis Gregory	Senior	312	12–2	12CD
Mary Margaret Murphy	Junior	217	10–2	10CD
Ralph Rubin	Senior	312	12–1	12AB
John Wilkinson	Freshman	103	9–2	9CD

    Each one of these students should be commended. At the next Student Assembly, let's have each one of them stand up for a round of applause.

Numeric Tables

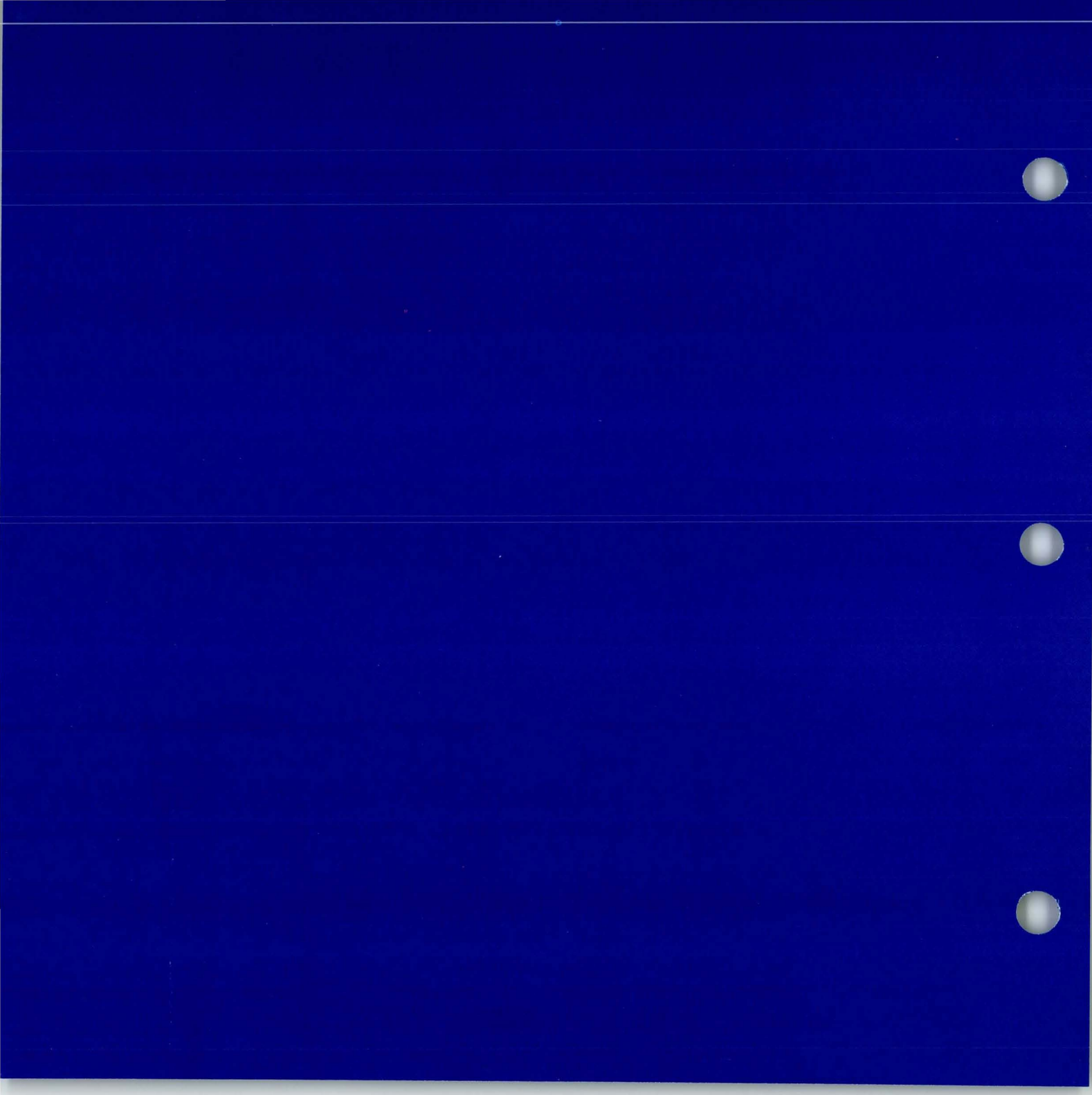If your table doesn't look like the illustration, did you remember to:

☐ Change the margins for the document?

☐ Change the paper size for the document?

☐ Change the last typing line for the document?

☐ Change the margins for the table?

☐ Press LAYOUT to realign the table?

☐ Revise the Format Change code after the table to change the margins?

☐ Paginate the document to adjust the text line endings for the document?

Unit: Numeric Tables
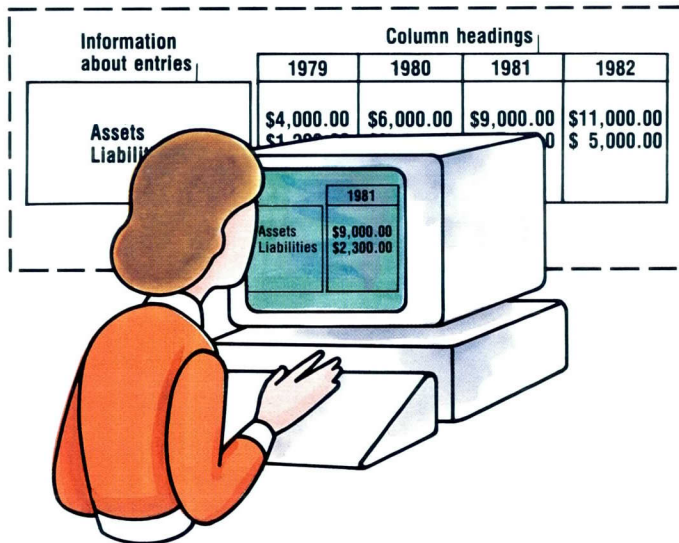
**Lesson 2: Using the Column
             Reference Function
             (Textpack 6)**

2

2

The Column Reference function is available with Textpack 6 only. Take this lesson only if you have Textpack 6.

You may create or revise tables in which aligning the information within the table is cumbersome. The table may be so long that the top headings leave the screen while you are typing or revising the lower entries. Or, the table may be so wide that the left column leaves the screen while you are typing or revising entries in a right-hand column. Or, the left column may contain multiline entries. This may make it difficult to correctly align entries in the other columns.

In many cases it would be helpful to have reference points on the screen to help you align your columns correctly. The Column Reference function gives you this capability.

The Column Reference function allows you to select a column from a table created using Column Layout and automatically place it next to the left-hand column. This helps you make perfectly aligned revisions. Column Reference also allows you to have your column headings remain on the screen. This helps ensure that you type or revise entries in the correct column.

When you use the Column Reference function you will see a horizontal bar and a vertical bar on your screen. The information above the horizontal bar is called the top reference area. This usually contains your column headings. The text to the left of the vertical bar is called the side reference area. This contains the text in the left column of your table. The area to the right of the vertical bar contains the information in the column you have chosen to revise.

	1982
Assets	$11,000.00
Liabilities	$ 5,000.00

The Column Reference function is primarily used while revising a table. Later in this lesson you will learn an alternate way to create a table by defining the column reference areas first, then using them as guides for typing the table. When you create the table, you will actually be revising "empty" columns.

Because you are actually revising, you must first have a good understanding of revising tables using column reference areas.

In the first segment of this lesson you will learn how to define the column reference areas while revising a document. The second segment teaches you how to make revisions to the defined reference areas. In the third segment you will learn to define column reference areas while you create a document. Then you will learn to create a table using Column Reference by actually revising "empty" columns.

1 You can use the Column Reference function while revising tables that were previously created using Column Layout. The function allows you to view columns side by side to help ensure that revisions are perfectly aligned.

You can use the Column Reference function to establish a top reference area, a side reference area, or both. The area you establish depends upon your needs. In this segment you will learn to define both a top and a side column reference area.

Your goal for this segment is to be able to define the top and side reference areas for a document while revising it.

MAIN IDEA

To define the column reference areas while revising a table, follow these steps:

1. Place the cursor on the first character of the column you are going to revise.
2. Press COLUMN.
3. Press SCREEN FORMAT.
4. Complete the Column Reference Area Setup menu.
5. Revise the column.

If you have enough information on defining the column reference areas while revising, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

To define the top and side column reference areas while revising a table, follow these steps:

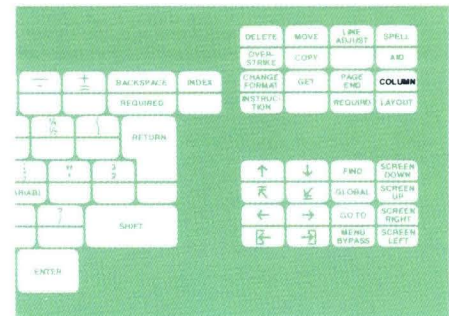**1. Place the cursor on the first character of the column you are going to revise.**
The cursor must be on the same line as the Begin Table code, but it can be anywhere on this line, depending upon which column you will revise.

Cursor

	Fiscal Year 1979 to 1980	Fiscal Year 1980 to 1981	Fiscal Year 1981 to 1982
July	420	425	426
August	434	444	451
September	439	450	462

2. Press COLUMN.
This indicates that you will be revising the table. The prompt "Press ENTER to revise column. Press COLUMN to create column" appears. The message below reads "Press SCREEN FORMAT to create or revise reference areas."

Press ENTER to revise column. Press COLUMN to create column.
⇨ Press SCREEN FORMAT to create or revise reference areas.

3. Press SCREEN FORMAT.
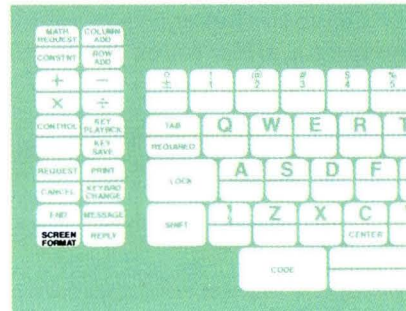
The Column Reference Area Setup menu appears.

COLUMN REFERENCE AREA SETUP

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Side Reference Area	2	1 = Yes 2 = No
b	Number of Lines in Top Reference Area	0	0-15

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ▨

4. Complete the Column Reference Area Setup menu.
You can set up a side reference area, a top reference area, or both.

- To set up the side reference area, change Your Choice to Yes for Side Reference Area. The side reference area is the left column of your table unless you are revising the left column. Then the side reference area will show the right column(s) of your table.

- To set up the top reference area, indicate the number of lines you want to see at the top of the screen in Number of Lines in Top Reference Area. These lines will usually be your column headings if they are a part of the table.

COLUMN REFERENCE AREA SETUP

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Side Reference Area	1	1 = Yes 2 = No
b	Number of Lines in Top Reference Area	0	0-15

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ▓

For example, if your column headings are five lines long, change Your Choice to 5. You can choose to have up to 15 lines in the top reference area. The number of lines you select displays after you follow the prompt to press ENTER.

COLUMN REFERENCE AREA SETUP

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Side Reference Area	1	1 = Yes 2 = No
b	Number of Lines in Top Reference Area	5	0-15

	Fiscal Year 1979 to 1980	Fiscal Year 1980 to 1981	Fiscal Year 1981 to 1982
July	420	425	426
August	434	444	451
September	439	450	462

Note: The reference areas you set up are not permanent. The areas can be redefined at any time by accessing the Column Reference Area Setup menu and making the necessary changes.

5. Revise the column.
Follow the prompt to revise a column. You will see the side reference area, the column you have chosen to revise, and the top reference area on the screen. The reference areas are separated by vertical and horizontal bars. You can now make revisions to the selected column using the reference areas as guidelines.
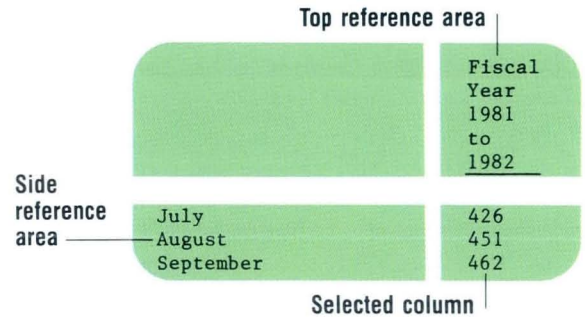
Top reference area

	Fiscal Year 1981 to 1982
July	426
August	451
September	462

Side reference area

Selected column

To define column reference areas while revising, go on to the Demonstration.

DEMONSTRATION

In the following Demonstration you will define column
reference areas and make minor revisions to the table
illustrated.

Choose Revise to access the following document:

Document name: Sample
Diskette name: TRAIN3

First you will define column reference areas for the
table illustrated and change some of the numbers in
the 1976 column. You could count down the numbers
or count across the columns to find the numbers that
must be revised. But it would be easier to make the
revisions if you could actually see the months and years,
as well as the column, at the same time.

FINANCE

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$168,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	153,000
December	261,000	211,000	206,000	101,000	170,000	169,000	154,000

(handwritten annotations: "122,000" above 117,000 which is circled in June 1976 column; "127,000" crossed out with "e" in July 1976; "et" above October)

Go to the typing area.

Place the cursor under the 1 in the heading *1976*.

Make sure you are on the same line as the Begin Table code.

Press COLUMN.

The prompt "Press ENTER to revise column. Press COLUMN to create column" appears. The message "Press SCREEN FORMAT to create or revise reference areas" also appears.

Press SCREEN FORMAT.

The Column Reference Area Setup menu appears. You will complete this menu to define areas for column reference.

Establish a side reference area by changing Your Choice to Yes for Side Reference Area.

Since the column headings are only one line long, change the 0 to 1 for Number of Lines in the Top Reference Area.

FINANCE

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$168,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000 *122,000*	107,000
July	189,000	182,000	161,000	155,000	137,000	~~127,000~~	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	153,000
December	261,000	211,000	206,000	101,000	170,000	169,000	154,000

Press ENTER to return to the typing area.

The message to press SCREEN FORMAT to create or revise reference areas appears again. This allows you to change or view your choices if you'd like. The prompt "Press ENTER to revise column. Press COLUMN to create column" also appears again.

Press ENTER to revise the column.

The system is now in the Column Reference typing area. You can see the first column of your table in the side reference area. You can see your column heading in the top reference area.

Delete the number *127,000* across from *July*. Delete the tab preceding it and the carrier return following it.

FINANCE

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$168,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000 *122,000*	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000 *e*	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	153,000
December	261,000	211,000	206,000	101,000	170,000	169,000	154,000

Insert the number *122,000* before *117,000*.

Place your cursor on the first tab preceding *117,000*.
Tab twice, type *122,000* and press RETURN.

Press ENTER to return to the typing area.

The column reference area disappears and the table
returns to the screen. Check to see that you made the
revisions correctly to the 1976 column. If you didn't,
isolate the column and revise it again. The column
reference areas will still be set up.

Place the cursor under the *A* in *ASSETS*.

Press COLUMN.

Press ENTER to revise the column.

The column reference area appears with the cursor
under the *J* in *January*.

**Press → to attempt to move the cursor to the right
into the side reference area (to the number *$189,000*).**

Notice that the cursor will not move to the right of
the vertical bar.

FINANCE

Most businesses will have at least two basic financial statements prepared at the end of the annual accounting period -- a statement of income and a balance sheet. There may also be other statements containing important information. These might include a reconciliation of retained earnings in the business, a statement of source and application funds, and listings of such items as inventories, accounts receivable, and accounts payable. However, the statement of income and the balance sheet are basic financial statements. Any business can reasonably be expected to have these two available.

Sample Comparative Balance Sheet

ASSETS	1981	1980	1979	1978	1977	1976	1975
January	$189,000	$173,000	$168,000	$159,000	$140,000	$130,000	$120,000
February	162,000	155,000	144,000	138,000	120,000	110,000	100,000
March	165,000	158,000	147,000	141,000	123,000	113,000	103,000
April	166,000	159,000	148,000	142,000	124,000	114,000	104,000
May	168,000	161,000	150,000	144,000	126,000	116,000	106,000
June	169,000	162,000	151,000	145,000	127,000	117,000	107,000
July	189,000	182,000	161,000	155,000	137,000	127,000	117,000
August	200,000	190,000	181,000	165,000	148,000	147,000	128,000
September	250,000	195,000	191,000	185,000	154,000	153,000	138,000
October	255,000	205,000	200,000	195,000	164,000	163,000	148,000
November	260,000	210,000	205,000	100,000	169,000	168,000	153,000
December	261,000	211,000	206,000	101,000	170,000	169,000	154,000

Press ⏎ to move the cursor back to the left margin.

Correct the typographical error in the word _Ocfober_.

Press ENTER to return to the typing area.

Press END.

_To practice defining column reference areas while
revising on your own, go on to the Self-Test._

SELF-TEST

For this Self-Test you will define column reference
areas for the table on the next page. You have been
asked to make the revisions indicated on the illustrated
copy.

    Revise the following document:
    Document name: Acctg Statement 2
    Diskette name: TRAIN3

ACCOUNTING STATEMENT

	Quarter Ended June 30 1981	Quarter Ended October 31 1981	Year Ended December 31 1981
INCOME			
Income from securities (common and preferred) less brokerage fees	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research programs	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$805,798.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, ~~answering~~ copying service and other expenses	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,568.28

MOVE DOWN ONE LINE

Define top and side column reference areas and make the revisions indicated.

After you have made the revisions, move your cursor to the Year Ended December 1981 column. Press Column, then ENTER to revise the column. While you still have the column reference areas on the screen, compare your screen with the one on the next page. Then print a copy of the table.

For Feedback, go on to the next page.

FEEDBACK

Your screen should look like the illustration on the right:

	Year Ended December 31 1981
INCOME	
Income from securities (common and preferred) less brokerage fees	$234,222.00
Income from loans on real estate	202,222.20
Income from real estate rental and leasing projects	123,448.84
Income from sale of used equipment	30,000.00
Income from sale of used office furniture and appliances	5,559.55
Income from accounts receivable, less allowance for bad debts	10,367.90
Contributions received for support of ongoing research programs	200,200.20
TOTAL	$805,798.69

When finished, press ENTER.

If your table doesn't look like the one illustrated, did you remember to:

☐ Place your cursor under the *Y* in *Year* before you pressed COLUMN?

☐ Press SCREEN FORMAT when the message "Press SCREEN FORMAT to create or revise reference areas" appeared?

☐ Set up the side reference area by changing Your Choice to Yes?

☐ Set up the top reference area by indicating 3 for the number of lines for Your Choice?

☐ Press ENTER to revise the column?

☐ Insert a carrier return before the entry *$300,378.30*?

☐ Change *answering* to *copying* in the left column?

2

Once you define column reference areas for a table, they remain set up with the table. However, you may need to change the choices in the Column Reference Area Setup menu in order to make revisions to column headings which you previously defined as a top reference area. Or, you may need to make revisions to the left column, which you had previously defined as a side reference area.

Your goal for this segment is to be able to revise column reference areas and the text contained within them.
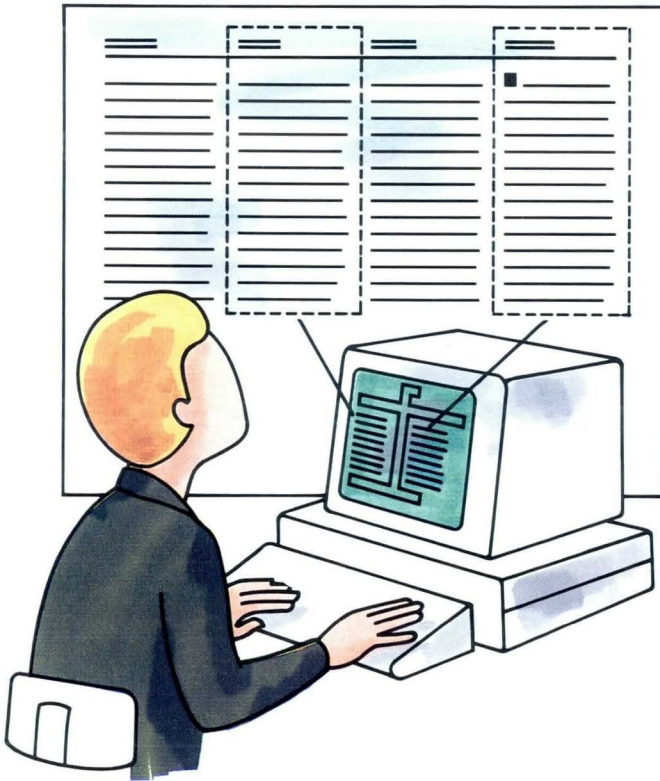
MAIN IDEA

In order to revise text within a previously set up top reference area, you must eliminate the horizontal bar separating the text in the top reference area from the text in the column.

1. Place the cursor on the first character of the column you want to revise. Make sure the cursor is on the same line as the Begin Table code.

2. Press COLUMN.

3. Press SCREEN FORMAT.

4. Set the number of lines in the top reference area to 0 and return to the typing area.

5. Press ENTER to make the necessary revisions to the text.

6. Press ENTER to return to the typing area.

It is not necessary to eliminate the vertical bar when you are revising the side reference area text.

To revise the text in a previously set up side reference area, follow these steps:

1. Place the cursor on the first line of the column currently being used as the side reference area. Make sure the cursor is on the same line as the Begin Table code.

2. Use the procedures you learned in Lesson 1 of this unit to revise the column.

To revise the number of lines in a top reference area or to add or eliminate a side reference area, use the procedures you learned in Segment 1 of this lesson.

If you have enough information about revising a table using Column Reference, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

As you learned in the last lesson, you can make minor revisions or substitutions to text in any column as long as the changes do not affect the number of lines in the column.

You may find, however, that you need to change the text within a column or column heading that has been specified as a top or side reference area. For example, you may need to add a line to a column heading to make it four lines instead of three.

When you have isolated a column for revision and the horizontal and vertical bars are showing, you cannot move your cursor to the text within the top and side reference areas. In order to revise the text in these areas, you must first eliminate the horizontal bar from the screen. You do this by changing the previously set up reference areas. Then you can isolate your column and make the changes.

To change text in a previously set up top reference area, follow these steps:

1. **In the typing area, place the cursor on the first character of the column you want to revise. Make sure the cursor is on the same line as the Begin Table code.**

2. **Press COLUMN.**
   The prompt "Press ENTER to revise column. Press COLUMN to create column" appears. The message "Press SCREEN FORMAT to create or revise reference areas" also appears.

Quarter Ended September 30 1982	*Projected* Year End December 31 1982
$198,450.00	$234,250.00
175,350.00	202,219.00
88,650.00	98,465.50
150,000.00	175,450.00
$612,450.00	$710,384.50

3. **Press SCREEN FORMAT.**
   The Column Reference Area Setup menu appears.

4. **Set the number of lines in the top reference area to 0 and return to the typing area.**
   By setting Your Choice to 0, you are actually eliminating the top reference area. Press ENTER to return to the typing area.

5. **Press ENTER to make the necessary revisions.**
   The Column Layout typing area appears. You will see a vertical bar if you have defined a side reference area, but no horizontal bar. You can now make changes to the column heading.

6. **Press ENTER to return to the typing area.**

Note: If you want to make further revisions to the document using a top reference area, you must redefine the area.

COLUMN REFERENCE AREA SETUP

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Side Reference Area	2	1 = Yes 2 = No
b	Number of Lines in Top Reference Area	0	0-15

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ▄

Cursor

Month	1978
January	$15,450.00
February	14,875.50
March	17,825.00

It is not necessary to make changes to the Column Reference Area Setup menu in order to make changes to a column specified as a side reference area.

To revise the text in a previously set up side reference area, follow these steps:

1. **Place the cursor on the first line of the column currently being used as the side reference area. Make sure the cursor is on the same line as the Begin Table code.**

   Your cursor should be on the first character of the column you want to revise.

2. **Use the procedures you learned in Lesson 1 of this unit to revise the column.**

To revise the number of lines in a top reference area or to add or eliminate a side reference area, use the procedures you learned in Segment 1 of this lesson.

Cursor ———
Month	1978
January	$15,450.00
February	14,875.50
March	17,825.00

Keep in mind that when you add text to one column, you may also need to add corresponding text to other columns in order to make them align correctly.

For example, if you add a fourth line to one column you may need to add a carrier return to other columns in order to make the text line up correctly.

In the example on the right, the word *Projected* was added to the fourth column. This caused the columns to become misaligned. By adding a carrier return at the beginning of the three other columns, the columns become correctly aligned again.

RET   RET   RET

Name	Quarter Ended June 30 1982	Quarter Ended September 30 1982	Projected Quarter Ended December 31 1982
Karen Simmons	$20,095.00	$ 9,500.00	
Marcia Taylor	35,000.00	13,450.00	$30,000.00
John Winchell	25,950.00	21,550.00	10,000.00
			15,000.00

Name	Quarter Ended June 30 1982	Quarter Ended September 30 1982	Projected Quarter Ended December 31 1982
Karen Simmons	$20,095.00	$ 9,500.00	$30,000.00
Marcia Taylor	35,000.00	13,450.00	10,000.00
John Winchell	25,950.00	21,550.00	15,000.00

To revise a table using Column Reference, go on to the Demonstration.

DEMONSTRATION

In this Demonstration you will revise the text that
has been indicated as column reference areas. To do
this you will eliminate the horizontal bar of the top
reference area. You will also add carrier returns to
the other columns in the table in order to make them
align.

Choose Revise to access the following document:

Document name: Acctg Statement 3
Diskette name: TRAIN3

ACCOUNTING STATEMENT

RET

Projected

Item	RET→ Quarter Ended June 30 1982	RET→ Quarter Ended September 30 1982	Quarter Ended December 31 1982
INCOME	*commissions*		
Income from securities (common and preferred) less ~~brokerage fees~~	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$806,020.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, answering service and other expense	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,567.58

First, you will add text in the fourth column heading.

Place the cursor on the *Q* in the word *Quarter* in the December column.

Press COLUMN.

Observe the prompt and message.

Press SCREEN FORMAT.

The Column Reference Area Setup menu displays.

Set Number of Lines in Top Reference Area to 0.

The column headings are no longer part of the top reference area. Now you can add text in the column headings.

Press ENTER to return to the typing area.

Observe the prompt and message.

ACCOUNTING STATEMENT

Projected

RET

Item	RET→ Quarter Ended June 30 1982	RET→ Quarter Ended September 30 1982	Quarter Ended December 31 1982
INCOME			
Income from securities (common and ~~commissions~~ preferred) less ~~brokerage fees~~	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$806,020.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, answering service and other expense	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,567.58

(Handwritten annotations: "RET" in blue at left; "commissions" written above "preferred) less brokerage fees"; "RET→" before the two Quarter Ended column headings; "Projected" written above the December 31 column.)

Press ENTER to revise the column.

You will see the vertical reference bar, the side reference area, and the December column.

Tab once to the Center tab and type the word *Projected*, **then press RETURN.**

Notice that all the text on the screen moved down one line. To make the text in the columns align again, you will add carrier returns to the beginning of each of the three other columns.

Press ENTER to return to the regular typing area.

Press ← to move the cursor back to the Q in *Quarter Ended* **in the September column.**

Press COLUMN.

Press ENTER to revise the column.

Press RETURN.

Press ENTER to return to the regular typing area.

Press ← to move the cursor to the Q in *Quarter Ended* **in the June column.**

ACCOUNTING STATEMENT

RET

Projected

Item	RET→ Quarter Ended June 30 1982	RET→ Quarter Ended September 30 1982	Quarter Ended December 31 1982
INCOME			
Income from securities (common and preferred) less ~~brokerage fees~~ *commissions*	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$806,020.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, answering service and other expense	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,567.58

Press COLUMN.

Press ENTER to revise the column.

Press RETURN.

Press ENTER to return to the regular typing area.

Press ← to move the cursor to the Begin Table code.

The Begin Table code is at the left margin on the same line with *Projected* (line 9).

Press COLUMN.

Observe the prompt and message.

Press ENTER to revise the column.

Notice that the vertical bar for the side reference area is still in place. However, the cursor is on the left side in the side reference area.

ACCOUNTING STATEMENT

RET

Projected

Item	RET→ Quarter Ended June 30 1982	RET→ Quarter Ended September 30 1982	Quarter Ended December 31 1982
INCOME			
Income from securities (common and *commissions* preferred) less ~~brokerage fees~~	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$806,020.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, answering service and other expense	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,567.58

Press RETURN.

The text in all the columns will now be aligned properly.

Delete *brokerage fees* **and type** *commissions* **in the Income column.**

If you add an extra carrier return, or delete one, by mistake, you can easily see how to realign the columns.

Press ENTER to return to the regular typing area.

Press END, then print the document on 279. 4 x 215.9 mm (11 x 8½ in.) paper.

If you have a sheet-feed paper handler, be sure that your paper is loaded correctly in the bottom drawer. Printing Paper Source is already set to 2 for the document.

Compare your results with the example illustrated below.

ACCOUNTING STATEMENT

Item	Quarter Ended June 30 1982	Quarter Ended September 30 1982	Projected Quarter Ended December 31 1982
INCOME			
Income from securities (common and preferred) less commissions	$ 21,121.12	$ 25,110.10	$234,222.00
Income from loans on real estate	10,100.10	22,200.20	202,222.20
Income from real estate rental and leasing projects	45,557.41	22,198.89	123,448.84
Income from sale of used equipment	1,112.31	1,500.50	30,000.00
Income from sale of used office furniture and appliances	1,001.10	1,407.40	5,559.55
Income from accounts receivable, less allowance for bad debts	2,394.20	2,452.25	10,367.90
Contributions received for support of ongoing research	89,462.98	100,110.10	200,200.20
TOTAL	$170,749.22	$174,979.44	$806,020.69
DISBURSEMENTS			
Purchase of securities (common and preferred) less commissions	$ 28,482.28	$ 53,976.35	$300,378.30
Contributions to several institutes for research grants	3,000.30	4,000.40	25,000.00
Stationery, postage, answering service and other expense	1,876.81	2,178.21	11,189.28
TOTAL	$ 33,359.39	$ 60,154.96	$336,567.58

To revise using Column Reference on your own, go on to the Self-Test.

SELF-TEST

For this Self-Test you will revise the text within column reference areas.

FINANCIAL REPORT

RET

Estimate of

RET	RET→ Actual Collections for Period Ended 2Q	RET→ Actual Collections for Period Ended 3Q	Actual Collections for Period Ended 4Q
INCOME			
Income from securities (common and preferred) less commissions	$ 10,500.00	$ 10,500.00	$ 12,000.00
Income from loans on real estate rental and leasing projects	45,000.00	45,000.00	45,000.00
Income from sale of used equipment (heavy industrial machinery)	63,000.00	78,000.00	50,000.00
Income from accounts receivable less allowance for bad debts	42,450.00	56,750.00	60,000.00
Income from research foundation	15,000.00	15,000.00	15,000.00
TOTAL	$175,950.00	$205,250.00	$182,000.00

Choose Revise to access the following document:
Document name:　Finance Statement
Diskette name:　TRAIN3
Make the following revisions:

- Eliminate the horizontal bar of the top reference area.
- Add *Estimate of* to the last column as indicated.
- Add carrier returns to other columns.
- Make the indicated text changes in the left column.

When you have finished making the revisions, end the document and print one copy on 279.4 x 215.9 mm (11 x 8½ in.) paper. If you have a sheet-feed paper handler, load 279.4 x 215.9 mm (11 x 8½ in.) paper in the bottom drawer. Compare your copy with the example in the Feedback section.

FEEDBACK

Your document should look like this:

FINANCIAL REPORT

INCOME	Actual Collections for Period Ended 2Q	Actual Collections for Period Ended 3Q	Estimate of Actual Collections for Period Ended 4Q
Income from securities (common and preferred) less commissions	$ 10,500.00	$ 10,500.00	$ 12,000.00
Income from loans on property rental and leasing projects	45,000.00	45,000.00	45,000.00
Income from sale of used equipment (heavy industrial machinery)	63,000.00	78,000.00	50,000.00
Income from accounts receivable less allowance for bad debts	42,450.00	56,750.00	60,000.00
Income from research foundation	15,000.00	15,000.00	15,000.00
TOTAL	$175,950.00	$205,250.00	$182,000.00

If your document doesn't look like the illustration:

☐ In making changes to the Period Ended 4Q column, did you remember to go to the Column Reference Area Setup menu and set Number of Lines in Top Reference Area to 0 (zero)?

☐ Did you remember to tab once before typing *Estimate of* and then press RETURN?

☐ Did you remember to isolate each of the first three columns to add a carrier return?

☐ Did you remember to make the revisions to the Income column text?

3 In the previous segments of this lesson you learned to define and use column reference areas while revising a table previously set up with Column Layout.

In this segment you will learn an alternate way to define and use reference areas when you create a table. You will create the table by revising "empty" columns. In order to use the reference areas, you create the table vertically, one column at a time, rather than horizontally, one line at a time. You can then use the reference areas to verify placement of the entries as you create the columns.

Your goal for this segment is to be able to define reference areas while creating a table and to create the table one column at a time.

MAIN IDEA

To create a table using column reference areas:

1. Choose Create Document in the Typing Tasks menu and type the document and diskette names.
2. Set up the table using Column Layout.
3. Press SCREEN FORMAT and define the reference areas.
4. Press ENTER to go to the Column Layout typing area.
5. Type *all* column headings.
6. Type the left column.
7. Press ENTER to go to the regular typing area.
8. Place your cursor under the first character of the next column heading.
9. Press COLUMN.
10. Press ENTER to revise the column.
11. Type the column entries and press ENTER.
12. Repeat Steps 8 through 11 for the remaining columns.

If you have enough information about creating a table using column reference areas, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

Column reference areas can be *defined* either while you create or revise a table. However, they can only be *used* when you revise. Therefore, to use the reference areas when you originally type a table, you must first set up "empty" columns in the table, then "revise" the columns with the aid of Column Reference. In doing so, you will "create" the table one column at a time.

To define column reference areas while creating a table and to create the table one column at a time:

1. **Choose Create Document in the Typing Tasks menu and type the document and diskette names.**

2. **Set up the table using Column Layout.**
   Follow the Column Layout instructions to set up all columns in your table. Press LAYOUT to adjust the spacing between columns before you continue.

3. **Press SCREEN FORMAT and define the reference areas.**
   The Column Layout instructions are still on the screen when you press SCREEN FORMAT. Then, the Column Reference Area Setup menu appears. Set Side Reference Area to Yes and Top Reference Area to the number of lines in the column headings.

```
<========== READ ALL INSTRUCTIONS FOR COLUMN LAYOUT ==========>

1. Type longest entry of the new column only (o's will appear).
              For Flush Left Column: Press TAB, then type entry.
      For Decimal-Aligned Column: Type number with decimal point.
              For Centered Column: Type entry, then press CTR.
          For Flush Right Column: Type entry, then press RET.
                   For Text Column: Press LINE ADJ, then type entry.
2. Press COLUMN to separate each column.
3. Press LAYOUT again to automatically adjust spacing.
4. Press SCREEN FORMAT to set up column reference areas.
5. Press ENTER when finished to type new column.
```

COLUMN REFERENCE AREA SETUP

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Side Reference Area	2	1 = Yes 2 = No
b	Number of Lines in Top Reference Area	0	0-15

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ☐

4. Press ENTER to go to the Column Layout typing area.
The prompt "When finished typing table, press ENTER" appears.

5. Type *all* column headings.
Type the column headings for all your columns and type the correct number of carrier returns after the column headings. If your table does not have column headings, skip this step.

6. Type the left column.
Type all the entries in the left column *only*. Press RETURN at the end of every entry except the last.

7. Press ENTER to go to the regular typing area.
After you have typed the last entry in the left column, press ENTER. The system returns to the regular typing area. Now you will "revise" the empty columns you set up in Step 2.

When finished typing table, press ENTER.

Account	1980	1981	1982
ABC Corp.			
(main plant)			
Acme Co.			
BYQ Inc.			
(domestic)			
BYQ Inc.			
(foreign)			
XYZ Company			

When finished typing table, press ENTER.

8. Place your cursor under the first character of the next column heading.

Use the cursor movement keys to place your cursor under the first character of the next column heading. The cursor must be on the same line as the Begin Table code.

Note: If your table does not have column headings, place your cursor under the Required Carrier Return code after the first entry in the left column. The cursor must be on the same line as the Begin Table code. Press TAB to place the cursor at the next column position.

```
                              Cursor
                                 |
     Account       |1980      1981      1982
                   ‾
     ABC Corp.
       (main plant)
     Acme Co.
     BYQ Inc.
       (domestic)
     BYQ Inc.
       (foreign)
     XYZ Company
```

9. Press COLUMN.

This indicates that you will revise the table. The prompt "Press ENTER to revise column. Press COLUMN to create column" appears. The message "Press SCREEN FORMAT to create or revise reference areas" also appears. Since you have already defined the reference areas, you can ignore the message for now.

```
  ⇄    Account       1980      1981      1982

     ABC Corp.
       (main plant)
     Acme Co.
     BYQ Inc.
       (domestic)
     BYQ Inc.
       (foreign)
     XYZ Company

  Press ENTER to revise column. Press COLUMN to create column.
  ⇒Press SCREEN FORMAT to create or revise reference areas.
```
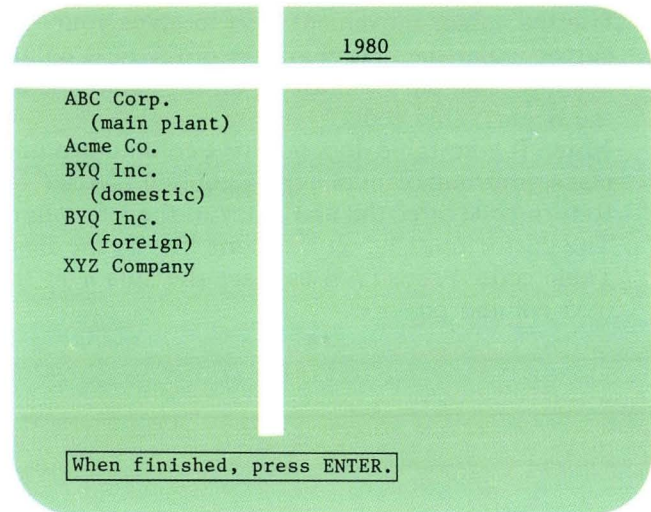
10. **Press ENTER to revise the column.**
    You previously set up an "empty" column in the table. Now you will "revise" the column by adding the entries.
    The reference areas you defined in Step 3 appear on the screen.

11. **Type the column entries and press ENTER.**
    Type the entries for this column *only*. Use the reference areas to ensure proper alignment. Press RETURN after every entry except the last. Press ENTER after the last entry. The regular typing area returns to the screen.

12. **Repeat Steps 8 through 11 for the remaining columns.**

```
                                    1980

ABC Corp.
  (main plant)
Acme Co.
BYQ Inc.
  (domestic)
BYQ Inc.
  (foreign)
XYZ Company




When finished, press ENTER.
```

To create a table using column reference areas, go on to the Demonstration.

DEMONSTRATION

In this Demonstration you will define top and side reference areas as you create the illustrated table. Then, you will create the table one column at a time, using the reference areas.

Create the following document:

Document name: Expenses
Diskette name: TRAIN3

```
                              FIRST QUARTER EXPENSES


                Expense         January   February    March      Total

        Overhead              $4,958.63  $4,729.89  $4,126.86  $13,815.38
          (excluding utilities)
        Utilities              1,867.83   2,098.98   1,500.20    5,467.01
        Salaries               6,212.50   6,512.50   6,512.50   19,237.50
          (management only)
        Production             8,764.98   9,256.90   7,008.75   25,030.63
          (including wages)
        Equipment              3,142.64   3,046.92   2,912.12    9,101.68
```

Go to the typing area.

Type the centered heading, *FIRST QUARTER*
EXPENSES, **including the underline.**

Type three carrier returns.

Now you will set up the table and define the top and
side reference areas.

Press LAYOUT.

Follow the Column Layout instructions to set up the
table. Be sure to include a center tab for each column
so you can create the column headings. Use decimal
tabs for all columns except the Expense column. The
first column is 23 characters long and should be set
up as a flush left tab. The second through fourth
columns are nine character long. The fifth column is
ten characters long.

**Press LAYOUT again to adjust the spacing between
columns before you continue.**

**Press SCREEN FORMAT to define the reference
areas.**

The Column Layout instructions are still on the screen
when you press SCREEN FORMAT.

In the Column Reference Area Setup menu, set Your
Choice for Side Reference Area to Yes.

Set Number of Lines in Top Reference Area to 1.

Press ENTER.

The Column Layout instructions and the example
entries for the table reappear on the screen.

Press ENTER again.

The Column Layout typing area and the prompt
"When finished typing table, press ENTER" appear.
Your cursor is under the End Table code.

FIRST QUARTER EXPENSES

Expense	January	February	March	Total
Overhead (excluding utilities)	$4,958.63	$4,729.89	$4,126.86	$13,815.38
Utilities	1,867.83	2,098.98	1,500.20	5,467.01
Salaries (management only)	6,212.50	6,512.50	6,512.50	19,237.50
Production (including wages)	8,764.98	9,256.90	7,008.75	25,030.63
Equipment	3,142.64	3,046.92	2,912.12	9,101.68

Tab to the first center tab and type the heading *Expense*.

Tab to the next center tab and type the heading *January*.

Continue to tab to the other center tabs and type the rest of the column headings.

Press RETURN *twice* after the column heading *Total*.

Type *Overhead* **and press RETURN.**

Type *(excluding utilities)* **and press RETURN.**

Type the remaining entries in the Expense column. Press RETURN after each entry except the last.

Press ENTER after you have typed *Equipment*.

The regular typing area returns to the screen. You have typed all your column headings and the entries for the left column.

Now you will "revise" the remaining columns by typing the entries for the columns. You will use the column reference areas you defined earlier.

Place your cursor under the *J* in *January*.

Press COLUMN.

The prompt "Press **ENTER** to revise column. Press **COLUMN** to create column" appears. The message "Press **SCREEN FORMAT** to create or revise reference areas" also appears.

FIRST QUARTER EXPENSES

Expense	January	February	March	Total
Overhead (excluding utilities)	$4,958.63	$4,729.89	$4,126.86	$13,815.38
Utilities	1,867.83	2,098.98	1,500.20	5,467.01
Salaries (management only)	6,212.50	6,512.50	6,512.50	19,237.50
Production (including wages)	8,764.98	9,256.90	7,008.75	25,030.63
Equipment	3,142.64	3,046.92	2,912.12	9,101.68

Press ENTER to revise the "empty" column.

The Column Layout typing area appears on the screen,
along with the reference areas you defined earlier. The
cursor is on the center tab for the January column.

**Press RETURN once, then tab to the decimal tab and
type** *$4,958.63.*

You press RETURN once to align the text in the
columns correctly.

Press RETURN twice then type the next entry.

Type the remaining entries in the January column.

Be sure to tab to the decimal tab before typing each
entry. Press RETURN after each entry except the last.
Use the side reference area to align the numbers
correctly with the words in the left column.

**Press ENTER after you have typed the last entry in
the January column.**

The regular typing area returns to the screen.

Place your cursor under the *F* in *February*.

Press COLUMN.

Press ENTER to revise the column.

Press RETURN once before typing the first entry.

FIRST QUARTER EXPENSES

Expense	January	February	March	Total
Overhead (excluding utilities)	$4,958.63	$4,729.89	$4,126.86	$13,815.38
Utilities	1,867.83	2,098.98	1,500.20	5,467.01
Salaries (management only)	6,212.50	6,512.50	6,512.50	19,237.50
Production (including wages)	8,764.98	9,256.90	7,008.75	25,030.63
Equipment	3,142.64	3,046.92	2,912.12	9,101.68

Tab to the decimal tab and type the entries for the February column.

Press RETURN after all entries except the last. Use the side reference area to properly align the numbers with the words in the left column.

Press ENTER after the last entry in the February column.

Follow the same steps to add the entries for the March and Total columns.

End the document.

Print your document and compare it with the illustrated document if you wish.

FIRST QUARTER EXPENSES

Expense	January	February	March	Total
Overhead (excluding utilities)	$4,958.63	$4,729.89	$4,126.86	$13,815.38
Utilities	1,867.83	2,098.98	1,500.20	5,467.01
Salaries (management only)	6,212.50	6,512.50	6,512.50	19,237.50
Production (including wages)	8,764.98	9,256.90	7,008.75	25,030.63
Equipment	3,142.64	3,046.92	2,912.12	9,101.68

To create tables using column reference areas on your own, go on to the Self-Test.

SELF-TEST

In this Self-Test you will define top and side column reference areas as you create a table. Then you will create the table one column at a time, using the column reference areas.

Create the following document:

Document name: Income

Diskette name: TRAIN3

Using Column Layout and Column Reference, type the following table:

FIRST QUARTER INCOME

Income	January	February	March	Total
Sales (materials only)	$15,628.42	$22,962.12	$25,029.63	$63,620.17
Consultation Fees	3,827.50	4,129.82	3,968.51	11,925.83
Seminar Fees (staff only)	2,075.00	3,285.00	1,986.00	7,346.00
Rental Property	5,000.00	5,000.00	5,500.00	15,500.00

Print a copy of your document and compare it with
the document illustrated.

For Feedback, go on to the next page.

FEEDBACK

If your printed copy did not match the illustrated document, ask yourself the following questions:

☐ Did you remember to set up your table using Column Layout?

☐ Did you remember to set center tabs so you could center the column headings?

☐ Did you remember to set Side Reference Area to Yes?

☐ Did you remember to set Number of Lines in Top Reference Area to 1?

☐ Did you remember to type *all* the column headings and the left column first in the Column Layout typing area?

☐ Did you remember to "revise" the empty columns to add the entries?

☐ Did you remember to press RETURN once before typing the first column entry?

☐ Did you remember to tab to the decimal tab to type the entries in each column?

Unit: Numeric Tables

Lesson 3: Using Math Functions

3
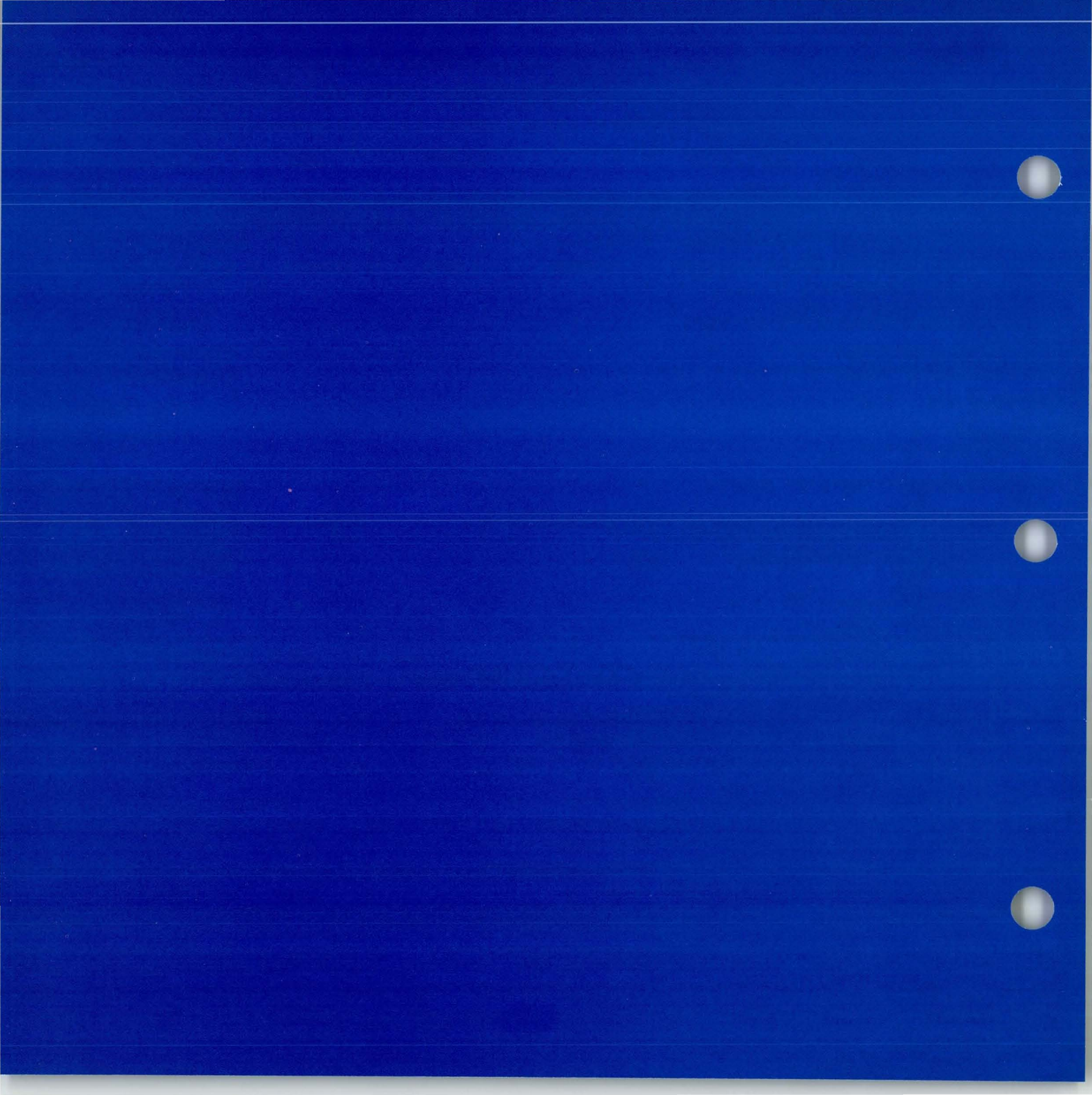
3 A document you've been given includes a number of math calculations. You have been asked to check the calculations to make sure they are correct.

With the Displaywriter, you can check or perform math calculations while typing the document. In this lesson you will learn how to perform the various math functions.

In Segment 1 you will learn what each math function does, and the rules for using the functions. In Segment 2 you will learn to add a column of numbers using Column Add, or a row of numbers using Row Add. Segment 3 teaches you how to use the sign keys to add, subtract, multiply, and divide numbers. Segment 4 teaches you to use a constant. A constant is a number that is used over and over again in several calculations. In Segments 5 and 6 you will learn to use the **MATH REQUEST** key. The **MATH REQUEST** key allows you to change math formats and signs (negative and positive), and helps you to find averages quickly and easily.
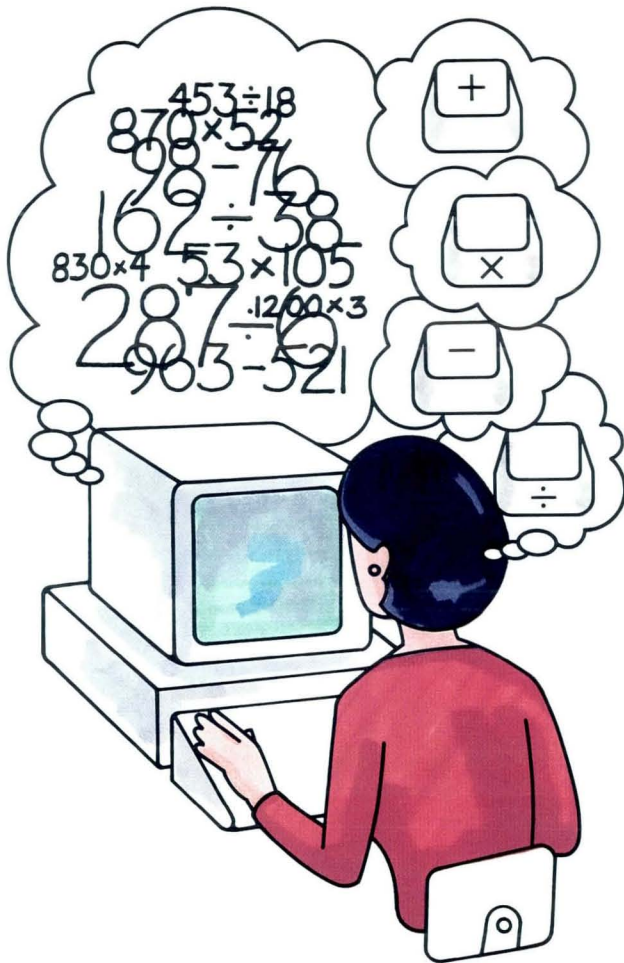
**1** Before you learn to use math functions you must know what each function does. You also must know the rules for using the functions. In this segment you will learn what each function does, when to use the function, and the rules associated with the function.

Your goal for this segment is to be able to describe the rules for each math function, how each math function works, and when each math function should be used.
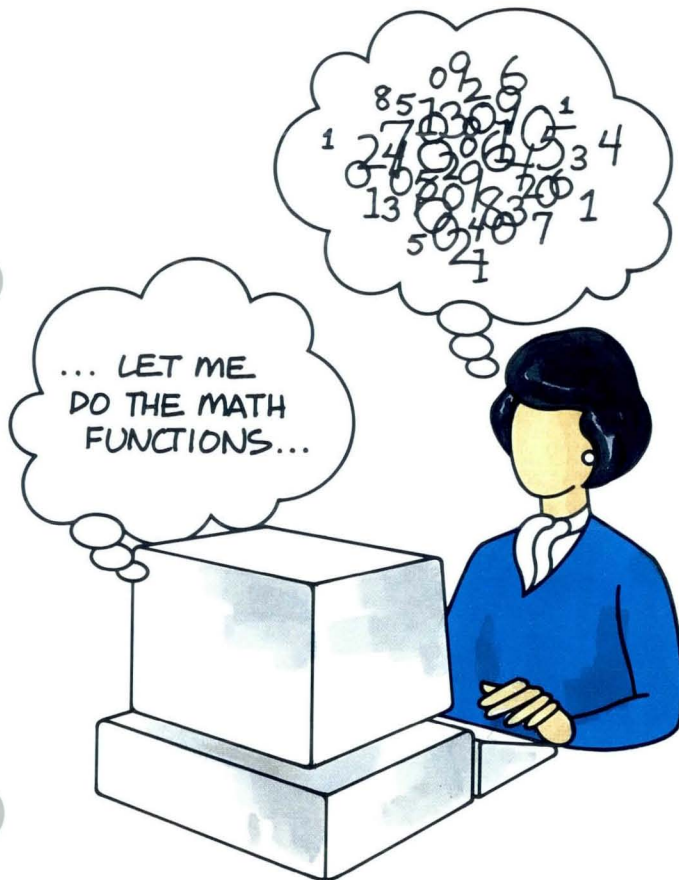
MAIN IDEA

The following information applies to *all* math functions.

- A total or an individual number cannot exceed 15 digits.
- A negative number may be indicated in one of the following ways:

1. The left-most digit or decimal point is preceded by a required hyphen or a required hyphen followed by a space.
2. The right-most digit or decimal is immediately followed by a required hyphen.
3. The number is enclosed in parentheses, brackets, or less than/greater than symbols.
   Note: The closing symbol must immediately follow the right-most digit or decimal point.

-2.01 $-\ 2.01$
Required Hyphen

Required Hyphen

32^{-} $.032^{-}$

$(.001)$ $[25]$
Parentheses   **Brackets**

$<72.05>$
Less than and greater than

Each time you use a math function, keep in mind the following information about the *individual* functions.

Adding, Subtracting, Multiplying, and Dividing on the Displaywriter

Purpose

- To add, subtract, multiply, or divide numbers within a document.
- To add, subtract, multiply, or divide by a constant number *not* contained in the document.
- To divide a constant by a number in the document. A constant is a number that is used over and over again in calculations.

Use

- To verify an existing total.
- To compile a total to insert into a document.

Rules

- Numbers may be in text or in columns.
- Decimal alignment of numbers is not required.

```
                        XXXX XXXXX XXXXXXXX XXXX

        7.04 xxx xx xxxxxxxx xxxxx xxxxxxxxxx xxxxx xxxxxxx xxxxxxx xxxxx xxxxx
        xx xxxxx xxxxx 1.98 = 9.02 xxxx xxxxx xxxx xxxx xxxxx xxx xxxxxx x
        xxxxxxxx xxxx xxxx.

                        $4.24           $5.50
                       −2.11            x  4
                       ─────           ──────
                        $2.13          $22.00
```

In the text { (bracket label)

In columns { (bracket label)

```
                        XXXX XXXXX XXXXXXXX XXXX

        xxx xxxxxx xxxxx x xx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxx
        xxxxx xxxxx xxxxx 4.03 xxxxx xxx xxxxxxxx xxxxxx xxxxxx xxxxx xx
        xxxxx xxxxx xxxxxxxx  xxxx 5.44 xxx xxxxxxxxx xxxx xxxx xxxxx xxxxxx
        xxxxxx xxxx xxxxx xxx Total = 9.47 xxxxx xx xxxx xxxx.
```

Decimal alignment not necessary { (bracket label)

**Adding Columns or Rows of Numbers (Column Add
and Row Add)**

Purpose

- To add a vertical column or a horizontal row of
  numbers that has been aligned at a decimal tab.

Use

- To verify an existing total.
- To compile a total to insert into a document.

Rules

- A column or row of numbers *must* be aligned at a decimal tab.
- Numbers do not have to contain a decimal. You do not have to add a decimal point to the end of a whole number.

Decimal tab	Column Add	Decimal tab
32.10	48	
1.71	21	
11.25	63	
41.27	81	

- When using the Column Add function, make sure negative signs that follow a number are preceded by a decimal point.
- Negative numbers will be subtracted from the total.

32.00 –	
21.00 –	
16.00 –	

Using a Constant

Purpose

- To provide the system with a constant number, not contained within the document, for use with one of the other math functions. A constant is a number used over and over again in calculations.

Use

• To add, subtract, multiply, or divide a constant with an existing number.

```
        4.32              7.95             14.54
       17.37             19.42             15.47
       23.09             14.79             12.25
       57.93             12.88              7.62
      ------            ------            ------
      102.71             55.04             49.88
      x12.00            x12.00            x12.00
      ------            ------            ------

              CONSTANT = 12
```

Rule

- A constant can be expressed as a positive number,
a negative number, or a percent.

**Using the MATH REQUEST Key and the Math
Requests Menu**

Purpose

- The MATH REQUEST key displays the Math
Requests menu.

Use

- To observe or change math formats or signs, or to
use constants or averages.

Note: You will learn more about the Math Requests
menu in Segments 5 and 6 of this lesson.

```
                        MATH REQUESTS

                                  YOUR      POSSIBLE
    ID  ITEM                      CHOICE    CHOICES
    a   Active Math               1         1 = 0.00
          Format                            2 = $0.00
                                            3 = 0
                                            4 = 0.0

    b   Change Sign
    c   Copy Constant into Total  2         1 = Yes   2 = No
    d   Copy Total into Constant  2         1 = Yes   2 = No
    e   Copy Average into Total   2         1 = Yes   2 = No
                        Average  =          0.00
                     Item Count  =          0


    When finished with this menu, press ENTER.

    Type ID letter to choose ITEM; press ENTER:  ¤
```

*There is no Help section for this segment. Go on to
the Exercise on the next page.*

EXERCISE

Now that you have read about all the math functions,
see if you can select the math function you should
use to do the calculations on the right. Turn to the
next page to check your answers.

35.11	27
12.12	13
13.13	17

The figure last year was
$17,100.00. This year the
total was $27,300.00.
The difference is _____.

1.000	11 x 1.00 = ___
x .10	12 x .003 = ___

			total
4.10	11.20	2.70	___

FEEDBACK

These are the math functions you should have selected.

35.11	27
12.12	13
13.13	17

Column Add

The figure last year was $17,100.00. This year the total was $27,300.00.
The difference is _____.

Subtraction

1.000	11 x 1.00 = ___
x .10	12 x .003 = ___

Multiplication

total
4.10   11.20   2.70   ____

Row Add

Prerequisites:
You must have completed
Segment 1 in this lesson

2

4,371	286	1,033	5,690
492	1,113	714	2,319
255	417	101	773
5,118	1,816	1,8	8,782

In Segment 1 of this lesson you learned that the Displaywriter can perform math functions. You learned what the functions were, and some of the rules for using the functions. In this segment you will learn to do two of the functions: Column Add and Row Add. Column Add allows you to add numbers that are aligned vertically, in a column. Row Add allows you to add numbers that are aligned horizontally, in a row.

Your goal for this segment is to be able to use Column Add and Row Add to add numbers in columns or rows in a table.
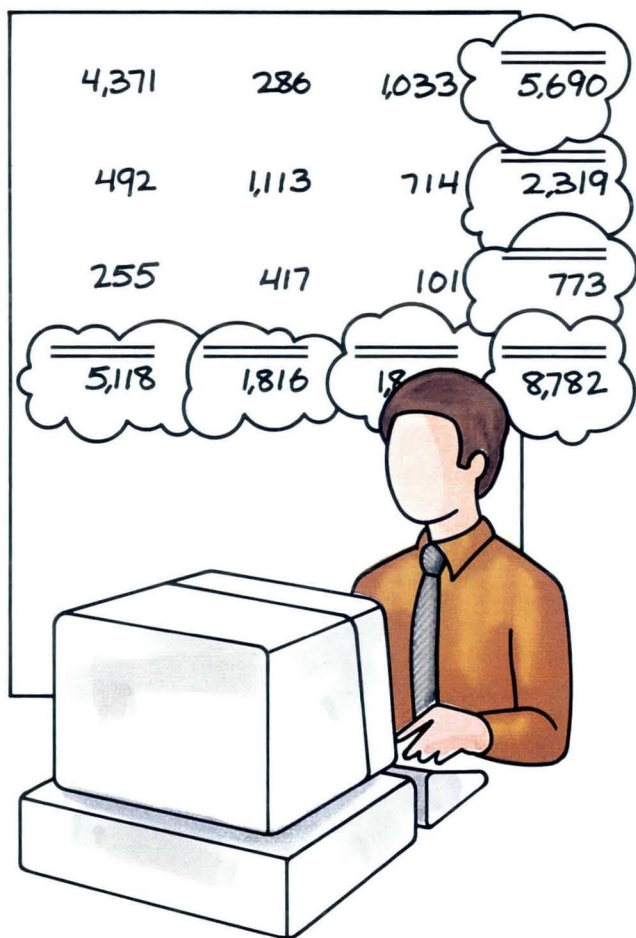
MAIN IDEA

To perform Column Add, follow these steps:

1. Make sure the numbers are aligned at a decimal tab.
2. Set Display Codes to No.
3. Place the cursor under the first number to be added.
4. Press and hold COLUMN ADD.
5. Check the total.
6. To insert the total, move the cursor to the location on the line on which the total should appear and press ENTER.
7. To add a second column of numbers, press CANCL to clear the total and then repeat Steps 3 through 6.
8. Press CANCL twice to end the Column Add function.

Row Add is very similar to Column Add. Follow these steps:

1. Make sure the numbers are aligned at a decimal tab.
2. Set Display Codes to No.
3. Place the cursor under the first number to be added.
4. Press and hold ROW ADD.
5. Check the total.
6. To insert the total, move the cursor to the decimal tab on the line on which the total should appear and press ENTER.
7. To add a second row of numbers, press CANCL to clear the total and then repeat Steps 3 through 6.
8. Press CANCL twice to end the Row Add function.

If you have enough information about Column Add and Row Add, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

Use Column Add to add a vertical column of numbers that has been aligned at a decimal tab. Follow these steps:

1. **Make sure the numbers are aligned at a decimal tab.**
   Look at the scale line to make sure the column is aligned at the decimal tab.

2. **Set Display Codes to No.**
   If Display Codes is set to Yes, your document may appear misaligned.

```
«·2····:··●·3····:····4····:··●·5····:····
           $235.67            $1,475.28
            36.17               743.00
           $271.84            $2,218.28
```

3. **Place the cursor under the first number to be added.**
   The cursor must be on any number left of the decimal point or on the decimal point.

36.17   36.17   36.17

Cursor can be

4. Press and hold COLUMN ADD.

The entire first number is highlighted and entered in the total at the bottom of the screen. At the same time, the item count increases by one. The cursor moves to the next number in the column. **Note:** Positive numbers are added. Negative numbers are subtracted. When you hold down the key, the numbers continue to be added into the total until you release the key or run out of numbers. You can press and release the key if you wish to see the numbers add one at a time.

5. Check the total.

If you are using Column Add to check calculations in your document, check the original total with the total at the bottom of the screen. If the original total does not agree with the one at the bottom of the screen:

- Your original total may be wrong.
- You may have typed a number incorrectly.
- The difference may be the result of rounding off the total.

Check your numbers and add the column again. If the totals still do not match, delete the old total and insert the new total.
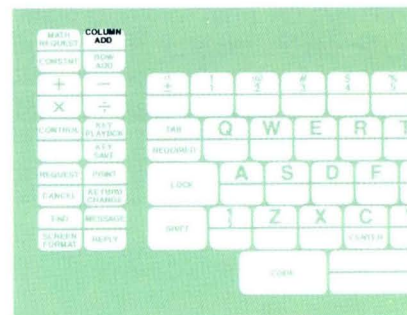
Cursor moves to here ——

439.19	17.14
402.23	−11.12
134.78	10.11
911.01	
Total=439.19	**Item count=1**

6. **To insert the total into the column, move the cursor to the decimal tab on the line on which the total should appear and press ENTER.**

    The total appears at the cursor. The total is aligned at the decimal.

    Note: The total does not have to be inserted at a decimal tab.

	Move cursor here to insert total	439.19	17.14
		402.23	− 11.12
		134.78	10.11
		911.01	

Total = 1,887.21   Item count = 4

	439.19	17.14
	402.23	− 11.12
	134.78	10.11
	911.01	
	1,887.21	

Total = 1,887.21   Item count = 4

7. **To add a second column of numbers, press CANCL to clear the total and then repeat Steps 3 through 6.**

    You can have as many separate totals as you need in one table. Just clear the total between each.

    Note: If you forget to clear the total, you can press CANCL to start again.

8. **After you finish adding the columns, you must press CANCL a second time.**

    The total and item count disappear. You can now end your document.

| 439.19 | 17.14 |
402.23	− 11.12
134.78	10.11
911.01	
1,887.21	
Total = 0	Item count = 0

Move cursor here to add next column

Row Add is very similar to Column Add. Most of the steps are the same and they are done in the same order except you press Row Add rather than Column Add to add the numbers. Follow these steps:

1. **Make sure the numbers are aligned at a decimal tab.**
   Note: If you want to insert totals, you may want to set a decimal tab where the total will be inserted.

2. **Set Display Codes to No.**

3. **Place the cursor under the first number to be added.**
   The cursor must be on any number left of the decimal point or on the decimal point.

4. **Press and hold ROW ADD.**
   The entire first number is highlighted and entered in the total at the bottom of the screen. At the same time, the item count increases by one. The cursor moves to the next number in the row.

5. **Check the total.**
   If you are using Row Add to check calculations in your document, check your figure with the total at the bottom of the screen.

6. **To insert the total, move the cursor to the decimal tab on the line on which the total should appear and press ENTER.**
   The total appears at the cursor and is aligned at the decimal.
   Note: The total does not have to be inserted at a decimal tab.

«· ▪ · · · · ▪ · · 3 · · ▪ · · · · 4 · · · · · · · · 5 · · · · ▪ · ▪ · ·
32.62 25.10   3.28   Total = _____
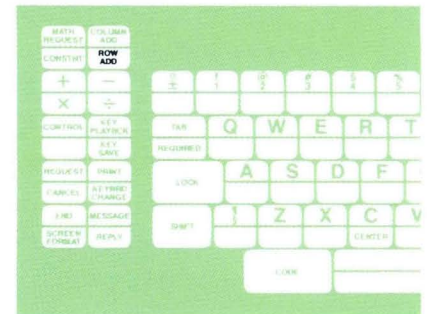
7. To add a second row of numbers, press CANCL
   to clear the total and then repeat Steps 3 through
   6.
8. Press CANCL twice to end the Row Add function.

To use Column Add and Row Add, go on to the
Demonstration.

DEMONSTRATION

In the following Demonstration you will add four
columns and four rows of numbers using Column Add
and Row Add.

Choose Revise to access the following document:

Document name: Sales
Diskette name: TRAIN3

```
                             INCOMING SALES

       Winter              Spring              Summer            Totals
     67,748.30           81,260.60           87,773.50
     66,681.70           24,479.40           62,422.40
     82,158.80          145,423.40           63,273.80



     These figures were reported by our Marketing Center in Carrollton,
     Texas.  Refer to your conversion table for more information.
```

**Determine that all the columns and rows are aligned
with a decimal tab.**

Move the cursor to line 9 and check the scale line
for the decimal tabs.

Make sure that Display Codes is set to No.

**Move the cursor to the *6* in the first number in the
column titled *Winter*.**

<div align="center">

INCOMING SALES

</div>

Winter	Spring	Summer	Totals
67,748.30	81,260.60	87,773.50	
66,681.70	24,479.40	62,422.40	
82,158.80	145,423.40	63,273.80	

These figures were reported by our Marketing Center in Carrollton,
Texas. Refer to your conversion table for more information.

Press COLUMN ADD.

The first number, *67,748.30*, is highlighted and added to the total at the bottom of the screen. The item count, also located at the bottom of the screen, is *1*.

Press COLUMN ADD again.

The next number, *66,681.70*, is added to the total. The total is now *134,430.00*.

Press COLUMN ADD again.

The last number in the Winter column is added to the total at the bottom of the screen. The total is *216,588.80* and the item count is *3*.

To insert the total at the end of the column, move the cursor under the Winter column, to the decimal tab, if not already there, and press ENTER.

The total is inserted at the bottom of the column.

Press CANCL.

The total and the item count return to *0*.

Move the cursor to the *8* in the first number in the Spring column.

Add the column of numbers and insert the total under the column.

The total is *251,163.40*.

Press CANCL.

Add the column of numbers in the Summer column and insert the total under the column.

The total is *213,469.70*.

Press CANCL twice to cancel the Column Add function.

```
                            INCOMING SALES

          Winter            Spring            Summer            Totals
        67,748.30         81,260.60         87,773.50         236,782.40
        66,681.70         24,479.40         62,422.40         153,583.50
        82,158.80        145,423.40         63,273.80         290,856.00
       216,588.80        251,163.40        213,469.70         681,221.90


       These figures were reported by our Marketing Center in Carrollton,
       Texas.  Refer to your conversion table for more information.
```

You will now use the Row Add function to insert totals in the Totals column.

Move the cursor to the *6* **in the first number in the Winter column.**

Press ROW ADD.

The number *67,748.30* is highlighted and the total appears at the bottom of the screen.

The cursor moves to the next number.

Press ROW ADD again.

The next number in the row, *81,260.60*, is highlighted and added to the total at the bottom of the screen. The item count increases to *2*.

Press ROW ADD once more.

The last number in the row is added to the total.

To insert the total, tab to the Total column and press ENTER.

The total, 236,782.40, appears on the same line as the numbers in the row.

Press CANCL.

The total and item count return to 0.

Add the next three rows (including the row of totals for each column).

Remember to press CANCL to clear the total after you add each row.

When you are finished adding all the numbers, press CANCL twice.

The total and item count disappear.

You can cross-check your totals. Add all the column totals together (using Row Add), then add all the row totals (using Column Add). The two totals should match.

End the document and print a copy if you wish to compare it with the one on the next page.

Your document should look like this:

INCOMING SALES

Winter	Spring	Summer	Totals
67,748.30	81,260.60	87,773.50	236,782.40
66,681.70	24,479.40	62,422.40	153,583.50
82,158.80	145,423.40	63,273.80	290,856.00
216,588.80	251,163.40	213,469.70	681,221.90

These figures were reported by our Marketing Center in Carrollton, Texas. Refer to your conversion table for more information.

To practice using Column Add and Row Add on your own, go on to the Self-Test.

SELF-TEST

Choose Revise to access the following document:
    Document name: Income Table
    Diskette name: TRAIN3
    The document, Income Table, is illustrated. This
is a sales report with totals that must be verified. Totals
must be inserted for each column and each row.
Remember, when you use Column Add or Row Add,
negative numbers are subtracted from the total. Follow
the steps for Column Add and Row Add. Print a copy
of your document and compare it with the one on
the next page.

Quarterly Income Table

1981

First	Second	Third	Fourth	Totals
7,748.30	7,124.00	1,000.00	7,008.90	22,881.20
-3,913.90	-689.60	1,500.00	-2,345.90	-5,449.40
1,355.40	-423.40	-37.60	-23.78	870.62
4,672.50	3,167.60	-446.40	1,563.33	8,957.03
9,862.30	9,178.60	2,016.00	6,202.55	27,259.45

1982

First	Second	Third	Fourth	Totals
3,913.90	4,293.80	2,789.56	5,345.89	16,343.15
-54.20	2,055.10	5,456.25	-2,722.31	4,734.84
900.10	-639.70	-732.10	-41.10	-512.80
-215.30	-200.00	-127.10	2,897.10	2,354.70
4,544.50	5,509.20	7,386.61	5,479.58	22,919.89

For Feedback, go on to the next page.

FEEDBACK

Check your table. It should look just like this:

Quarterly Income Table

1981

First	Second	Third	Fourth	Totals
7,748.30	7,124.00	1,000.00	7,008.90	22,881.20
-3,913.90	-689.60	1,500.00	-2,345.90	-5,449.40
1,355.40	-423.40	-37.60	-23.78	870.62
4,672.50	3,167.60	-446.40	1,563.33	8,957.03
9,862.30	9,178.60	2,016.00	6,202.55	27,259.45

1982

| First	Second	Third	Fourth	Totals
3,913.90	4,293.80	2,789.56	5,345.89	16,343.15
-54.20	2,055.10	5,456.25	-2,722.31	4,734.84
900.10	-639.70	-732.10	-41.10	-512.80
-215.30	-200.00	-127.10	2,897.10	2,354.70
4,544.50	5,509.20	7,386.61	5,479.58	22,919.89

If your table doesn't look like the one above, did you remember to:

☐ Use Column Add to add the vertical list of numbers?

☐ Use Row Add to add the horizontal list of numbers?

☐ Insert the totals at the decimal tabs?

☐ Press CANCL to clear the totals before adding a new column or row of numbers?

Prerequisites:
You must have completed
all previous segments in
this lesson

3 In the previous segment you learned to add using Column Add and Row Add. In this segment you will learn how to use the math sign keys to add, subtract, multiply, and divide. The sign keys let you check calculations in a table or compute numbers in text. You will also learn to insert totals in a document.

Your goal for this segment is to be able to add, subtract, multiply, and divide using the math sign keys.
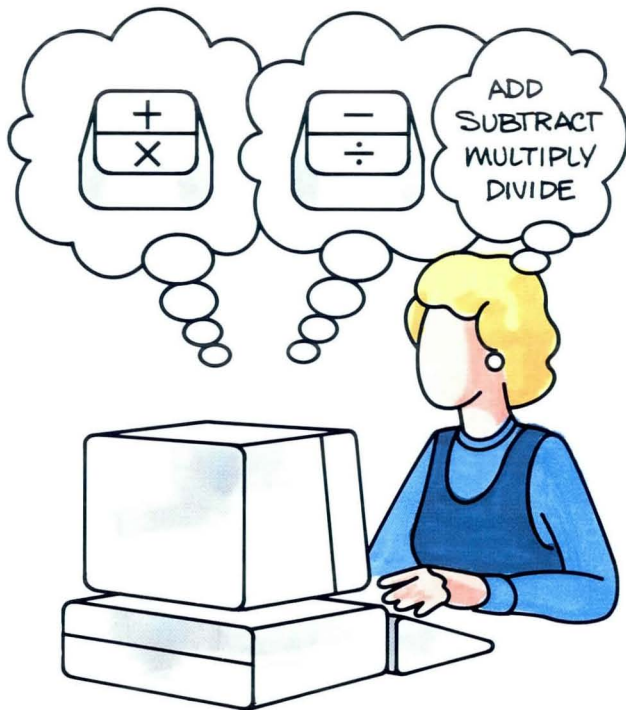
MAIN IDEA

To use the math sign keys, follow these steps:

1. Place the cursor under any digit to the left of the decimal tab, or under the decimal tab of the number you want to start with.

2. Press + (ADD).

3. Place the cursor under the next number in the operation.

4. Press + (ADD), − (SUBTRACT), × (MULTIPLY), or ÷ (DIVIDE), as appropriate, for the operation you want to perform.

5. To insert the total, place the cursor where you want the total to appear and press ENTER.

6. Press CANCL to clear the total.

If you have enough information about using math sign keys, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

The math sign keys enable you to add, subtract, multiply, and divide positive and negative numbers.

Cursor under number
to the left of the decimal
or under the decimal tab

1. **Place the cursor under any digit to the left of the decimal, or under the decimal tab, of the number you want to start with.**

3.17	2.21	__Total__
7.11	3.14	

2. **Press + (ADD).**
   The number is highlighted and entered in the total at the bottom of the screen. The item count increases by one.
   Note: When using the sign keys to do any kind of calculation, always press + (ADD) to enter the first number into the total.
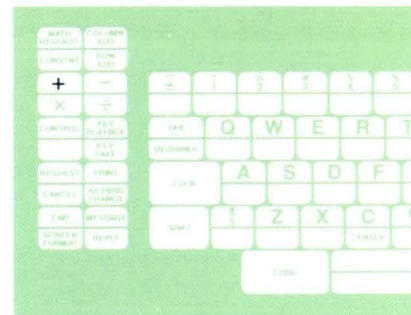
3.17	2.21
7.11	3.14

Total = 3.17	Item count = 1

3. Place the cursor under the next number in the operation.
The number can be anywhere in the document. The first number stays highlighted.

Cursor under next number ────

| 3.17 | 2.21 | **Total** |
| 7.11 | 3.14 | |

Total = 3.17   Item count = 1

4. Press the appropriate sign key: + (ADD), − (SUBTRACT), × (MULTIPLY), ÷ (DIVIDE).

Sign Keys
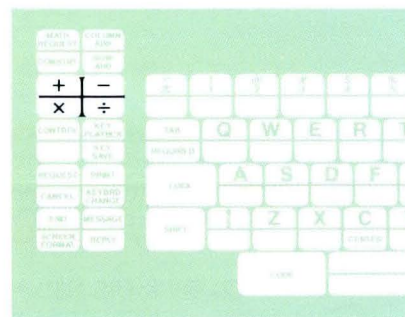
The number is highlighted and the new total shows at the bottom of the screen.
Note: To subtract a negative number (a number with a minus sign or enclosed in parentheses) press + (ADD).

| 3.17 | 2.21 |
| 7.11 | 3.14 |

Total = 10.28   Item count = 2

5. To insert the total, place the cursor where you want the total to appear and press ENTER.
The total appears.

Place cursor here and press ENTER to insert total.

3.17	2.21
7.11	3.14
10.28	

Total = 10.28　Item count = 2

6. Press CANCL to clear the total.
To delete the current total but continue using math sign keys, press CANCL. The total clears on the screen.
Note: If you are finished with the math functions, press CANCL again. The total and item count disappear. You cannot end your document when the total and item count are on the screen.

		Total
3.17	2.21	5.38
7.11	3.14	
10.28		

Total = 0.00　Item count = 0

Go on to the Demonstration on the next page.

DEMONSTRATION

In the following Demonstration you will use the math
sign keys to perform a number of mathematical
calculations.

Choose Revise to access the following document:

Document name: Sign Keys
Diskette name: TRAIN3

```
        ADD           SUBTRACT        MULTIPLY         DIVIDE

      375.00           795.00            75.00       363.00 / 3.00 =
      172.00           215.00           -35.00
```

Add the numbers in the first column by first placing your cursor under the decimal tab in *375.00*. Press + **(ADD)**.

375.00 highlights and appears in the total. The item count is *1*.

Move the cursor to the decimal tab in the next number in the column, *172.00*. Press + (ADD).

The number *547.00* appears in the total at the bottom of the screen. The item count increases to *2*.

Insert the total by moving the cursor to the decimal tab under the column and pressing ENTER.

To clear the total so you can begin the next calculation, press CANCL.

Subtract *215.00* from *795.00* in the second column by first placing the cursor under the decimal tab in the first number, *795.00*. Press + (ADD).

795.00 highlights and appears in the total at the bottom of the screen. The item count is *1*.

Place the cursor under the decimal tab in the second number, _215.00_, and press − (SUBTRACT).

The number _580.00_ appears in the total at the bottom of the screen and the item count increases to _2_.

Insert the total by moving the cursor to the decimal tab under the column and pressing ENTER.

You should only have to move the cursor down. After you press ENTER, the total appears directly under the column.

To clear the total so you can begin the next calculation, press CANCL.

Multiply the numbers in the third column by first placing your cursor under the decimal tab in _75.00_. Press + (ADD).

_75.00_ highlights and appears in the total. The item count is _1_.

Move the cursor to the decimal tab in the next number in the column, _-35.00_. Since this is a multiplication problem, press × (MULTIPLY).

The number _-2,625.00_ appears in the total at the bottom of the screen. The item count is _1_.

Insert the total by moving the cursor to the decimal tab under the column and pressing ENTER.

You should only have to move the cursor down. After you press ENTER, the total appears directly under the column.

To clear the total so you can begin the next calculation, press CANCL.

Divide the number in the fourth column by first placing the cursor under the decimal tab in the first number, *363.00*. Press + (ADD).

363.00 highlights and appears in the total at the bottom of the screen. The item count is *1*.

ADD	SUBTRACT	MULTIPLY	DIVIDE
375.00	795.00	75.00	363.00 / 3.00 =
172.00	215.00	−35.00	
547.00			

Place the cursor under the decimal tab in the second
number, *3.00*, and press ÷ (DIVIDE).

The number *121.00* appears in the total at the bottom
of the screen and the item count is *1*.

Insert the total by moving the cursor to the right of
the equal sign. Your cursor should be on the Required
Carrier Return code. Press ENTER.

To clear the total, press CANCL. Press CANCL again
to clear the math function.

End and print the document if you wish to check your
totals against those on the next page.

ADD	SUBTRACT	MULTIPLY	DIVIDE
375.00	795.00	75.00	363.00 / 3.00 =
172.00	215.00	−35.00	
547.00	580.00	−2,625.00	

Your table should look like this:

ADD	SUBTRACT	MULTIPLY	DIVIDE
375.00	795.00	75.00	363.00 / 3.00 = 121.00
172.00	215.00	−35.00	
547.00	580.00	−2,625.00	

To use the sign keys on your own, go on to the Self-Test.

SELF-TEST

Choose Revise to access and go to the typing area of
the following document:
    Document name: Report
    Diskette name: TRAIN3

District No.	Sales	Number of Salespeople	Sales Per Salesperson
District 1	2,783,451.00	26	
District 2	1,345,212.50	17	
District 3	885,412.00	14	
Total Sales			

Insurance Cost per Salesperson	123.50	
Total Number of Salespeople	57	
Total Insurance Cost		

- Use the sign keys to:
  - Find the Sales Per Salesperson in each of the three districts. (Divide *Sales* by *Number of Salespeople*.) You will see the message "Total rounded." Ignore it for now. You will learn about rounding in Segment 5 of this lesson.
  - Find the total sales.
  - Find the Total Insurance Cost for all salespeople. (Multiply *Insurance Cost Per Salesperson* by *Total Number of Salespeople*.)

End and print the document. Check your totals against the ones on the next page.

FEEDBACK

Your document should look like this:

District No.	Sales	Number of Salespeople	Sales Per Salesperson
District 1	2,783,451.00	26	107,055.81
District 2	1,345,212.50	17	79,130.15
District 3	885,412.00	14	63,243.71
Total Sales	5,014,075.50		

Insurance Cost per Salesperson	123.50
Total Number of Salespeople	57
Total Insurance Cost	7,039.50

If your document doesn't look like the illustrated document, did you remember to:

☐ Use the + (ADD) key to put the first number in each calculation into the total.

☐ Divide the sales for each district by the number of salespeople in the district?

☐ Multiply the Insurance Cost Per Salesperson by the Total Number of Salespeople?

☐ Cancel the total after each calculation?

4 In previous segments in this lesson you learned to add, subtract, multiply, and divide numbers in a document. In this segment you will learn to use a constant in math calculations. A constant is a number used over and over again in calculations. A constant is not in the document. For example, if you had to multiply a series of numbers by 12 to get yearly figures, you would use the number 12 as a constant. You can use constants in addition, subtraction, multiplication, division, and as percentages.

Your goal for this segment is to be able to perform math operations using a constant.
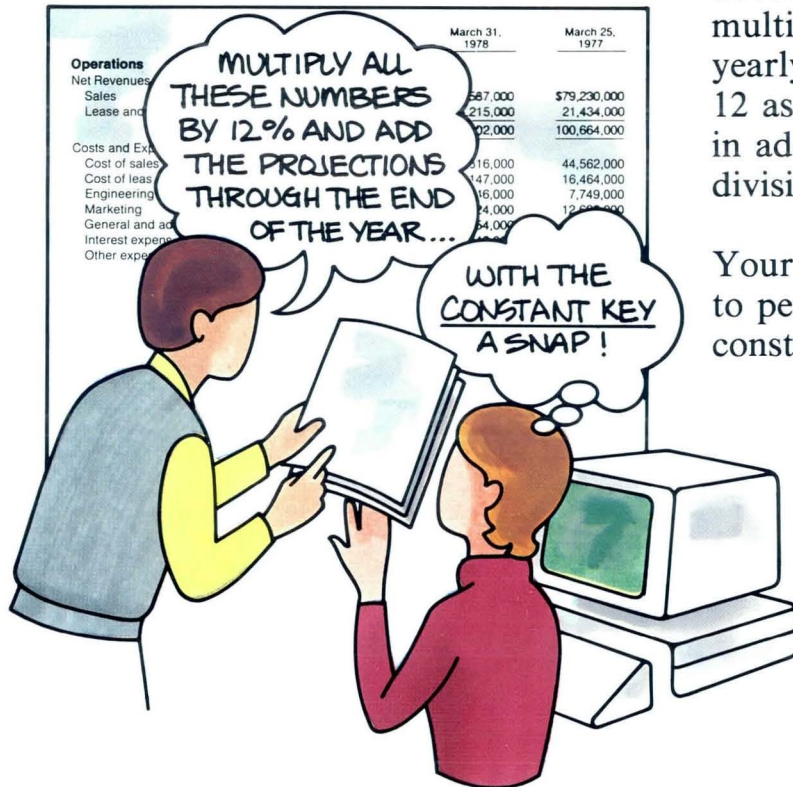
MAIN IDEA

To type a constant, follow these steps:

1. Press CONSTNT.
2. Type the number you want to use as the constant and press ENTER.

    To use the constant, follow these steps:

3. Place the cursor under the number you want to use the constant with.
4. Press + (ADD).
5. Press CONSTNT.
6. Press + (ADD), − (SUBTRACT), × (MULTIPLY), or ÷ (DIVIDE) depending on the operation you want to perform.
7. To insert the total, move the cursor to where you want the total to appear and press ENTER.
8. Press CANCL to clear the total.

If you have enough information about using the CONSTNT key, go on to the Demonstration. If you would like more detail, read the Help that follows.

HELP

Follow these steps to type the constant:

1. Press CONSTNT.
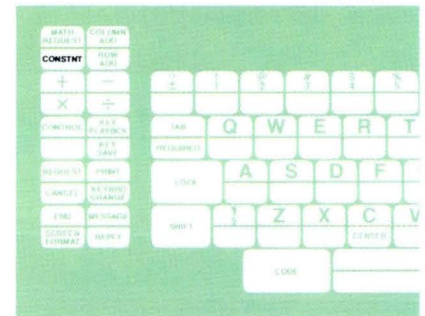
Constant = appears at the bottom of the screen.

Subtotals	2,100.00	1,600.00

3% tax

Constant = ☒

2. Type the number you want to use as a constant and press ENTER.
The total and item count appear at the bottom of the screen after you press ENTER.
Note: You can use a constant to figure a percentage by typing a constant number followed by a percent sign.

Subtotals	2,100.00	1,600.00

3% tax

Total = 0.00   Item count = 0

After you have established a constant, follow these
steps to use it:

**3. Place your cursor under the number you want to
use the constant with.**
The number can be anywhere within the text.

Subtotals	2,100.00	1,600.00

3% tax

Total = 0.00   Item count = 0

Cursor

4. Press + (ADD).
The number is highlighted and added to the total
at the bottom of the screen. The item count increases
by one.

Subtotals	2,100.00	1,600.00

3% tax

Total = 2,100.00   Item count = 1

5. Press CONSTNT.
The constant that you established appears at the
bottom of the screen.
Note: You can double-check your constant before
continuing. If the constant is wrong, press CANCL
and type a new constant.

Subtotals	2,100.00	1,600.00

3% tax

Constant = 3%

6. **Press + (ADD), − (SUBTRACT), ×
(MULTIPLY), or ÷ (DIVIDE), depending on the
type of operation you want to perform.**

Place cursor here and
press ENTER to insert total

The new total appears at the bottom of the screen
and the item count remains 1.

7. **To insert the total, move the cursor to where you
want the total to appear and press ENTER.**
If you want the total to accumulate, repeat Steps
3 through 6.

8. **Press CANCL to clear the total.**

| Subtotals | 2,100.00 | 1,600.00 |
| 3% tax | 63.00 | |

Total = 63.00   Item count = 1

To use the constant with another number, press
CANCL and the total and the item count return
to 0.
Note: To change your constant, repeat Steps 1 and
2 to establish a different constant.
To end the document, press CANCL until the total
and item count disappear, then press END.

| Subtotals | 2,100.00 | 1,600.00 |
| 3% tax | 63.00 | |

Total = 0.00   Item count = 0

*To practice using the CONSTNT key, go on to the
Demonstration.*

DEMONSTRATION 1

In the following Demonstration you will use a constant in a number of calculations.

Choose Revise to access the following document:

Document name: Constant
Diskette name: TRAIN3

Given the following monthly utility service estimates, compute the yearly estimates for Companies A, B, and C. You will use a constant of 12.

	Utility Service Transcript		
	Company A	Company B	Company C
monthly estimate	450.00	550.00	650.00
yearly estimate			

Enter a constant of 12 by first pressing CONSTNT.

Constant = appears at the bottom of the screen.

Type *12* **and press ENTER.**

The total and item count appear at the bottom of the screen.

Place the cursor under the decimal tab in *450.00*.

This is the first number you will multiply by the constant.

Press the + (ADD) key.

450.00 highlights and is added to the total. The item count increases to *1*.

Press CONSTNT.

Constant = *12* appears at the bottom of the screen.

Press × (MULTIPLY).

450.00 is multiplied by 12 and the total appears at the bottom of the screen (*5,400.00*).

Move the cursor to the decimal tab on the next line (*yearly estimate*) and press ENTER.

The total appears under the title *Company* A for yearly estimate.

Press CANCL to clear the total.

To compute the yearly estimate for Company B:

- Place the cursor under the decimal tab in *550.00*.
- Press the + (ADD) key.
- Press CONSTNT.
- Press × (MULTIPLY).
- Move the cursor down to the decimal tab on the next line (*yearly estimate*) and press ENTER.
- Press CANCL to clear the total.

To compute the yearly estimate for Company C:

- Place the cursor under the decimal tab in *650.00*
- Press the + (ADD) key.
- Press CONSTNT.
- Press × (MULTIPLY).
- Move the cursor down to the decimal tab on the next line (*yearly estimate*) and press ENTER.
- Press CANCL to clear the total.

Press CANCL a second time when you finish with the table.

If you wish, print a copy of the document and compare
your totals with the ones illustrated. Then go on to
the next Demonstration.

	Company A	Company B	Company C
monthly estimate	450.00	550.00	650.00
yearly estimate			

Utility Service Transcript

Your document should look like this:

<table>
<tr><td colspan="4"><u>Utility</u> <u>Service</u> <u>Transcript</u></td></tr>
<tr><td></td><td><u>Company A</u></td><td><u>Company B</u></td><td><u>Company C</u></td></tr>
<tr><td>monthly estimate</td><td>450.00</td><td>550.00</td><td>650.00</td></tr>
<tr><td>yearly estimate</td><td>5,400.00</td><td>6,600.00</td><td>7,800.00</td></tr>
</table>

DEMONSTRATION 2

In the following Demonstration you will use a constant
as a percentage.

Choose Revise to access the following document:

Document name: Percentages
Diskette name: TRAIN3

```
                                    ABC Company Seasonal Sale

          Regular Price                                              7% Discount
             10.95
             14.35
             7.52
```

In the following table, discount the *Regular Price* by a constant of seven percent.

Press CONSTNT.

Constant = appears at the bottom of the screen.

Type *7%* and press ENTER.

The total and item count appear at the bottom of the screen.

Place the cursor under the decimal in *10.95* in the Regular Price column.

Press + (ADD).

10.95 highlights and appears in the total at the bottom of the screen.

Press CONSTNT.

Constant = *7%* appears at the bottom of the screen.

Press × (MULTIPLY).

10.95 is multiplied by *7%* and the total appears at the bottom of the screen.

Place your cursor under the Required Carrier Return code following *10.95* and press TAB.

This places your cursor under the decimal tab in the 7% Discount column.

Press ENTER to insert the total in the 7% Discount column.

The total (*0.77*) appears in the 7% Discount column.

Press CANCL.

The total clears.

```
                                  ABC Company Seasonal Sale

        Regular Price                                              7% Discount
           10.95
           14.35
            7.52
```

To discount *14.35*:

- Place the cursor under the decimal in *14.35* in the Regular Price column.
- Press + (ADD).
- Press CONSTNT.
- Press × (MULTIPLY).
- Place the cursor under the decimal tab in the 7% Discount column and press ENTER.

Press CANCL.

To discount *7.52*:

- Place the cursor under the decimal in *7.52* in the Regular Price column.
- Press + (ADD).
- Press CONSTNT.
- Press × (MULTIPLY).
- Place the cursor under the decimal tab in the 7% Discount column and press ENTER.

Note: Remember to press CANCL twice when you finish with the table.

If you wish, print a copy of the document and compare your totals with the ones on the next page.

Your document should look like this:

```
                              ABC Company Seasonal Sale

     Regular Price                                              7% Discount
         10.95                                                     0.77
         14.35                                                     1.00
          7.52                                                     0.53
```

Note: The totals you inserted in the 7% Discount column have been rounded to two places past the decimal. In the next segment, you will learn how to change the way numbers are rounded.

To use the CONSTNT key on your own, go on to the Self-Test.

SELF-TEST

Revise the following document:
   Document name: Balance Sheet
   Diskette name: TRAIN3

<div style="border:1px solid">

	SAMPLE COMPARATIVE BALANCE SHEET		
	1979	1978	1977
Monthly Assets	1,890.00	1,730.00	1,680.00
Monthly Liabilities	1,620.00	1,550.00	1,440.00
Yearly Assets			
Yearly Liabilities			
Yearly Rebate (Liabilities Less 30%)			

</div>

- Multiply each number in *Monthly Assets* by the constant 12. Insert each total in the row titled *Yearly Assets* under the correct year columns.

- Multiply each number in *Monthly Liabilities* by the constant 12. Insert each total in the row titled *Yearly Liabilities* under the correct year column.

- Subtract 30 percent from each total in the Yearly Liabilities row. Insert the new totals in the row titled *Yearly Rebate* under the correct year column.

- Print your document and compare it with the one on the next page.

For Feedback, go on to the next page.

FEEDBACK

Your document should look like this:

```
                      SAMPLE COMPARATIVE BALANCE SHEET

                              1979           1978           1977

Monthly Assets             1,890.00       1,730.00       1,680.00

Monthly Liabilities        1,620.00       1,550.00       1,440.00

Yearly Assets             22,680.00      20,760.00      20,160.00

Yearly Liabilities        19,440.00      18,600.00      17,280.00


Yearly Rebate             13,608.00      13,020.00      12,096.00
(Liabilities Less 30%)
```
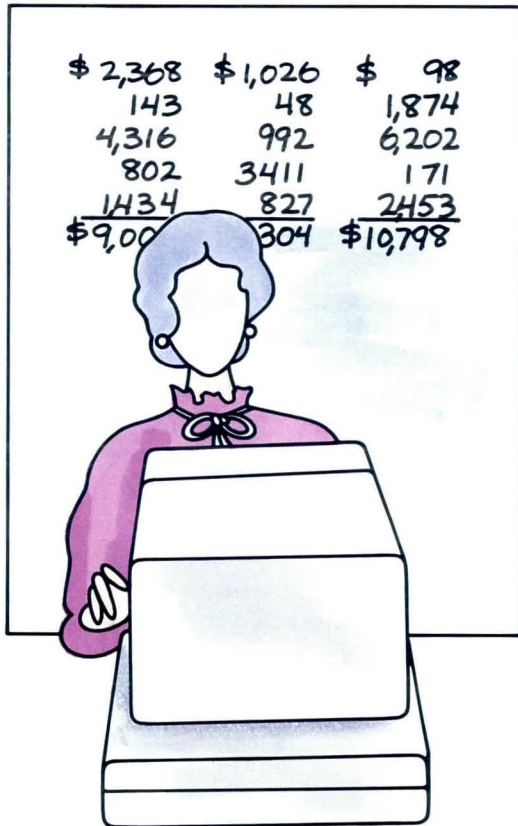
If your document doesn't look like the one above, did you remember to:

☐ Establish a constant by pressing CONSTNT and typing the number?

☐ Check your constant to make sure it was the right number?

☐ Use the correct math function to calculate the answers?

☐ Align the cursor, using the correct tabs, to insert the totals?

5

In previous segments you learned about the Displaywriter formatting capabilities. You know how to set up and store different formats for text. There are also different formats available for math totals. They are called math formats. You can have math totals appear in many different ways.

You can make math format changes from the typing area by using the MATH REQUEST key, or you can personalize your program diskette. As with text formats, you can store math formats. In this segment you will learn about the math formats that are available to you.

Your goal for this segment is to become familiar with the math formatting capabilities. You will learn to use the MATH REQUEST key in the next segment.

```
$ 2,368    $1,026    $   98
   143        48     1,874
 4,316       992     6,202
   802      3411       171
  1434       827      2453
$9,00       304    $10,798
```

MAIN IDEA

You can set up math formats with the MATH REQUEST key or by personalizing your program diskette.

When you set up math formats with the MATH REQUEST key:

- The math formats you set up apply to the math totals for a single document.
- You can change any of the items listed in the Math Requests menu.

When you set up math formats by personalizing a program diskette:

- You can store up to four different math formats through the Math Format Selection menu.
- The math formats you set up apply to the math totals for all documents processed with that program diskette.
- You can change the active math format in the Math Format Selection menu and the items listed in the Change Math Format menu.

If you have enough information about math formatting, you have completed this segment. There is no Demonstration or Self-Test. If you would like more detail, read the Help that follows.

HELP

You can set up math formats with the MATH REQUEST key or by personalizing your program diskette. You will learn how to use the MATH REQUEST key in the next segment. You learned how to personalize your program diskette in *Diskettes*, Lesson 3, Segment 1.

When you set up math formats with the MATH REQUEST key:

• **The math formats you set up apply to the math totals for a single document.**

MATH REQUESTS

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Active Math Format	1	1 = 0.00 2 = $0.00 3 = 0 4 = 0.0
b	Change Sign		
c	Copy Constant into Total	2	1 = Yes 2 = No
d	Copy Total into Constant	2	1 = Yes 2 = No
e	Copy Average into Total	2	1 = Yes 2 = No
	Average =		0.00
	Item Count =		0

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ¤

- **You can change any of the items listed in the Math Requests menu. They are:**
  Active Math Format determines the placement of the decimal point. The default is two digits following the decimal point.
  You can change this default to add a dollar sign, omit the digits after the decimal point, or print only one digit after the decimal point.

ACTIVE MATH FORMATS

Default:
53.16
78.95
132.11

Other choices:
53.16
78.95
$132.11

53.001
78.
132

53.1
78.9
132.0

Change Sign allows you to view a menu that shows how the totals will look as negative numbers.

Copy Constant into Total allows you to copy a constant number to the total for further math calculations or functions.

Copy Total into Constant allows you to copy the total to the constant for further math calculations or functions.

Copy Average into Total allows you to add the average into the total. You will learn more about this in the next segment.

MATH REQUESTS

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Active Math Format	1	1 = -0.00 2 = -$0.00 3 = -0 4 = -0.0
b	Change Sign		
c	Copy Constant into Total	2	1 = Yes 2 = No
d	Copy Total into Constant	2	1 = Yes 2 = No
e	Copy Average into Total	2	1 = Yes 2 = No
	Average =		0.00
	Item Count =		0

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ¤

When you set up math formats by personalizing a program diskette:

CHANGE MATH FORMAT

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Decimal Point Character	1	1 = . 2 = , 3 = :
b	Thousands Separator Character	2	1 = . 2 = , 3 = None 4 = Required Space
c	Number of Positions Past Decimal	2	0-15
d	Rounding Rule	1	1 = 1-4 Down, 5-9 Up 2 = 1-9 Up 3 = 1-5 Down, 6-9 Up 4 = 1-9 Down 5 = None

For Positive Numbers:

| e | Leading Characters | | Up to 8 characters |
| f | Trailing Characters | | Up to 8 characters |

For Negative Numbers:

| g | Leading Characters | — | Up to 8 characters |
| h | Trailing Characters | | Up to 8 characters |

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ¤

- **You can store up to four different math formats through the Math Format Selection menu.**
- **The math formats you set up apply to the math totals for all documents processed with that program diskette.**
  The personalized defaults work in the same way as personalized format defaults for margins, line spacing, and other items.

MATH FORMAT SELECTION

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES
a	Active Math Format	1	1-4
b	Change Format 1		
c	Change Format 2		
d	Change Format 3		
e	Change Format 4		

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ▯

- **You can change the active math format in the Math Format Selection menu and the items listed in the Change Math Format menu. The items you can change include:**
  Decimal Point Character determines which character is used to set off any decimal points. The standard character is a period, but you can use a comma or a colon.

DECIMAL POINT CHARACTER

Default:
98.30
12.10
11.04

Other choices:
98,30
12,10
11,04

98:30
12:10
11:04

Thousands Separator Character has a similar function. It determines which character is used to separate thousands. The standard character is a comma, but you can also use a period, a required space, or no character at all.

THOUSANDS CHARACTER SEPARATOR

Default:
5,630
  212
5,842

Other choices:
5.630
  212
5.842

5630
 212
5842

Number of Positions Past Decimal specifies how many digits appear to the right of a decimal point. The default is 2, but you can choose from 0 to 15 digits.

If the total number of digits to the left and right of the decimal exceeds 15, the number will be rounded to 15 digits.

NUMBER OF POSITIONS PAST DECIMAL

Default:

  55.00
   3.26
  58.26 ◀────── 2 digits

Other choices:

  55.326
  47.0014
  102. ◀────── From no digits

  30.237153462
    .001275846321411
  30.2384293083214 ◀──── To 15 digits

Rounding Rule tells the system how numbers are rounded off. The default is to round numbers from 1 to 4 down, and from 5 to 9 up. You can choose the other rounding methods specified in the menu, or choose not to have numbers rounded at all.

1 = **1-4 Down, 5-9 Up**
2 = **1-9 Up**
3 = **1-5 Down, 6-9 Up**
4 = **1-9 Down**
5 = **None**

The rest of the choices in the Change Math Format menu refer to your choice for the character or description preceding or following numbers. The only character that the system puts in is a minus sign (hyphen) before negative numbers. You can choose to add different letters, symbols, words, or spaces before or after numbers.

For Positive Numbers:
e   Leading Characters   Up to 8 characters
f   Trailing Characters   Up to 8 characters
For Negative Numbers:
g   Leading Characters   —   Up to 8 characters
h   Trailing Characters   Up to 8 characters

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ▮

SOME CHOICES FOR LEADING AND TRAILING CHARACTERS

56.97
3.28
_____
60.25 credit

56.97
3.28
_____
total: 60.25

56.97
3.28
_____
60.25 fr.

56.97
3.28
_____
$60.25

− 56.97
− 3.28
_____
− 60.25 OVDFT

There is no Demonstration or Self-Test for this segment.

6

Have you ever had to find a series of averages in a table? You probably added the entries and then divided by the number of column entries. You repeated this process until you made all of your calculations.

Using the Math Requests menu, you can quickly see the average of any number of entries you have added. You can then insert the average in the appropriate place in your document. The average is calculated for you in one step.

Your goal for this segment is to be able to use the Math Requests menu to find averages, and then insert them in a document.

$140,000	$130,000	$120,000
120,000	110,000	100,000
123,000	113,000	103,000
124,000	114,000	104,000
126,000	116,000	106,000
127,000		107,000
137,000		117,000
$897,000		$757,000

THE AVERAGE IS...
$ 827,000

MAIN IDEA

To find an average, follow these steps:

1. Add or subtract a row or column of numbers.
2. Press MATH REQUEST to see the average displayed.

   To use the average, follow these steps:

1. Set Copy Average into Total to Yes in the Math Requests menu.
2. In the typing area, move the cursor to the position where you want to insert the average and press ENTER.
3. Press CANCL to clear the total.
4. Press CANCL again to leave the math function.

If you have enough information about using MATH REQUEST to find averages, go on to the Demonstration. If you would like more detail, read the Help that follows.
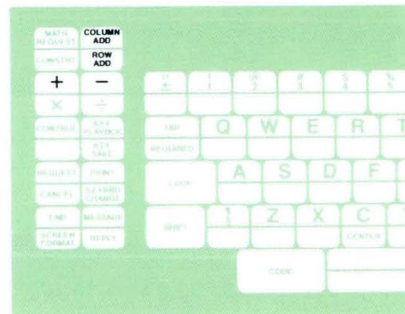
HELP

To find an average, follow these steps:

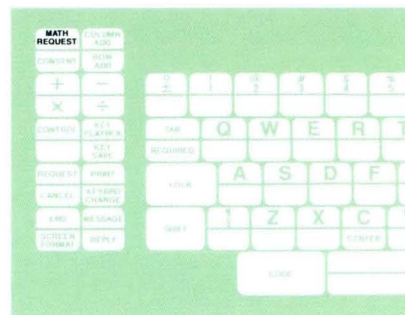1. **Add or subtract a row or column of numbers.**
   You can find the average in this way only if you
   use COLUMN ADD, ROW ADD, the + (ADD)
   key, or the − (SUBTRACT) key.
   Note: Do not cancel the total before you find the
   average.

2. **Press MATH REQUEST.**
   The Math Requests menu appears.

The average of the numbers you have just added appears to the right of *Average =* in the menu. The item count also appears.

MATH REQUESTS

ID	ITEM	YOUR CHOICE	POSSIBLE CHOICES	
a	Active Math Format	1	1 = 0.00 2 = $0.00 3 = 0 4 = 0.0	
b	Change Sign			
c	Copy Constant into Total	2	1 = Yes	2 = No
d	Copy Total into Constant	2	1 = Yes	2 = No
e	Copy Average into Total	2	1 = Yes	2 = No

Average = 3.00
Item count = 4

When finished with this menu, press ENTER.

Type ID letter to choose ITEM; press ENTER: ¤

To use the average, follow these steps:

1. Set Copy Average into Total to Yes in the Math Requests menu.
Press ENTER to return to the typing area. The average appears as the total at the bottom of the screen.

```
                          MATH REQUESTS

                                      YOUR      POSSIBLE
        ID   ITEM                     CHOICE    CHOICES
        a    Active Math                1       1 = 0.00
             Format                             2 = $0.00
                                                3 = 0
                                                4 = 0.0

        b    Change Sign
        c    Copy Constant into Total   2        1 = Yes  2 = No
        d    Copy Total into Constant   2        1 = Yes  2 = No
        e    Copy Average into Total    1        1 = Yes  2 = No
                              Average = 3.00        0.00
                              Item count = 4


        When finished with this menu, press ENTER.
        ┌──────────────────────────────────────────┐
        │ Type ID letter to choose ITEM; press ENTER: ▯ │
        └──────────────────────────────────────────┘
```

2. Move the cursor to the position where you want to insert the average and press ENTER.
The average appears where the cursor was located. Press ENTER again to return to the typing area.

```
                        2.00              6.00
                        3.00              4.00
                        6.00              2.00
                        1.00              2.00
                        3.00
Move cursor here ──
to insert average    Total = 3.00  Item count = 0
```

3. **Press CANCL to clear the total.**
   If you want to find *another* average, you must clear
   the total, add the new figures, and return to the
   Math Requests menu. The total and the item count
   clear after you press CANCL.

4. **Press CANCL again to leave the math function.**
   The total and item count disappear from the screen.
   You can then end your document.

To practice using MATH REQUEST to find averages,
go on to the Demonstration.

DEMONSTRATION

In this Demonstration you will find the averages in a document.

Choose Revise to access the following document:

Document name: Calculations
Diskette name: TRAIN3

Use COLUMN ADD to add the first column of numbers.

Add the entries *232.00*, *475.00*, and *307.00*. All three entries should highlight. The total appears at the bottom of the screen. Don't insert the total at this time.

Press MATH REQUEST to view the Math Requests menu.

```
                              Calculating Averages


        232.00
        475.00
        307.00


                                                                  Average
                 735.00           25.00           107.00
```

The average of the numbers you just added appears to the right of *Average* = in the menu. You will see *Average* = *338.00*.

Set Copy Average into Total to Yes and press ENTER to return to the typing area.

The number *338.00* appears after Total = at the bottom of the screen.

Tab to the decimal tab for the column and press ENTER.

The average, *338.00*, should appear on line 13, below the column of numbers.

Press CANCL to clear the total.

Use ROW ADD to add the entries in the row.

Add *735.00*, *25.00*, and *107.00*. All three entries should highlight. The total appears at the bottom of the screen.

Press MATH REQUEST to view the Math Requests menu.

The average of the numbers you just added appears to the right of *Average* = in the menu. You will see *Average* = *289.00*.

Set Copy Average into Total to Yes and press ENTER to return to the typing area.

The number *289.00* appears after *Total* = at the bottom of the screen.

Tab to the decimal tab in the column titled *Average*.

Press ENTER.

The average should appear on line 16, below the Average column.

Press CANCL to clear the total.

Press CANCL a second time when you are finished with this math function.

Total and *Item Count* disappear.

End the document. Print a copy if you wish to compare your copy with the one illustrated on the next page.

Your document should look like this:

```
                              Calculating Averages

         232.00
         475.00
         307.00
         338.00


                                                              Average
                 735.00          25.00          107.00        289.00
```

*To practice using MATH REQUEST to find averages
on your own, go on to the Self-Test.*

SELF-TEST

You have been asked to compute weekly stock averages
for three companies. Choose Revise to access the
following document:

Document name: Averages
Diskette name: TRAIN3

Insert the averages for each column under the
columns.

Check your answers with the Feedback on the next
page.

	Big Three Weekly Stock Averages		
Day	Company A	Company B	Company C
M	55.20	87.22	72.56
T	56.75	87.29	70.49
W	58.00	90.03	70.53
TH	56.50	89.99	75.38
F	55.25	89.25	76.61
Wk. Avg.			

For Feedback, go on to the next page.

FEEDBACK

Your document should look like this:

Big Three Weekly Stock Averages			
Day	Company A	Company B	Company C
M	55.20	87.22	72.56
T	56.75	87.29	70.49
W	58.00	90.03	70.53
TH	56.50	89.99	75.38
F	55.25	89.25	76.61
Wk. Avg.	56.34	88.76	73.11

If your document doesn't look like the one above, did you remember to:

- ☐ Use COLUMN ADD to add the entries?
- ☐ Press MATH REQUEST to get to the Math Requests menu?
- ☐ Set Copy Average into Total to Yes?
- ☐ Insert the average at the decimal tab under each column of numbers?
- ☐ Press CANCL to cancel highlighting and leave the math function?

IBM Displaywriter System
Numeric Tables
Order No. S544-2261-0

**READER'S
COMMENT
FORM**

You may use this form to communicate your comments about this publication, its organization, or subject matter, with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you. Your comments will be sent to the author's department for whatever review and action, if any, are deemed appropriate.

Note: *Copies of IBM publications are not stocked at the location to which this form is addressed. Please direct any requests for copies of publications, or for assistance in using your IBM system, to your IBM representative or to the IBM branch office serving your locality.*

Possible topics for comment are:

Clarity   Accuracy   Completeness   Organization   Coding   Retrieval   Legibility

If you wish a reply, give your name, company, mailing address, and date:

_____

_____

_____

_____

What is your occupation? _____

Number of latest Newsletter associated with this publication: _____

Thank you for your cooperation. No postage stamp necessary if mailed in the U.S.A. (Elsewhere, an IBM office or representative will be happy to forward your comments or you may mail directly to the address in the Edition Notice on the back of the title page.)

IBM ®