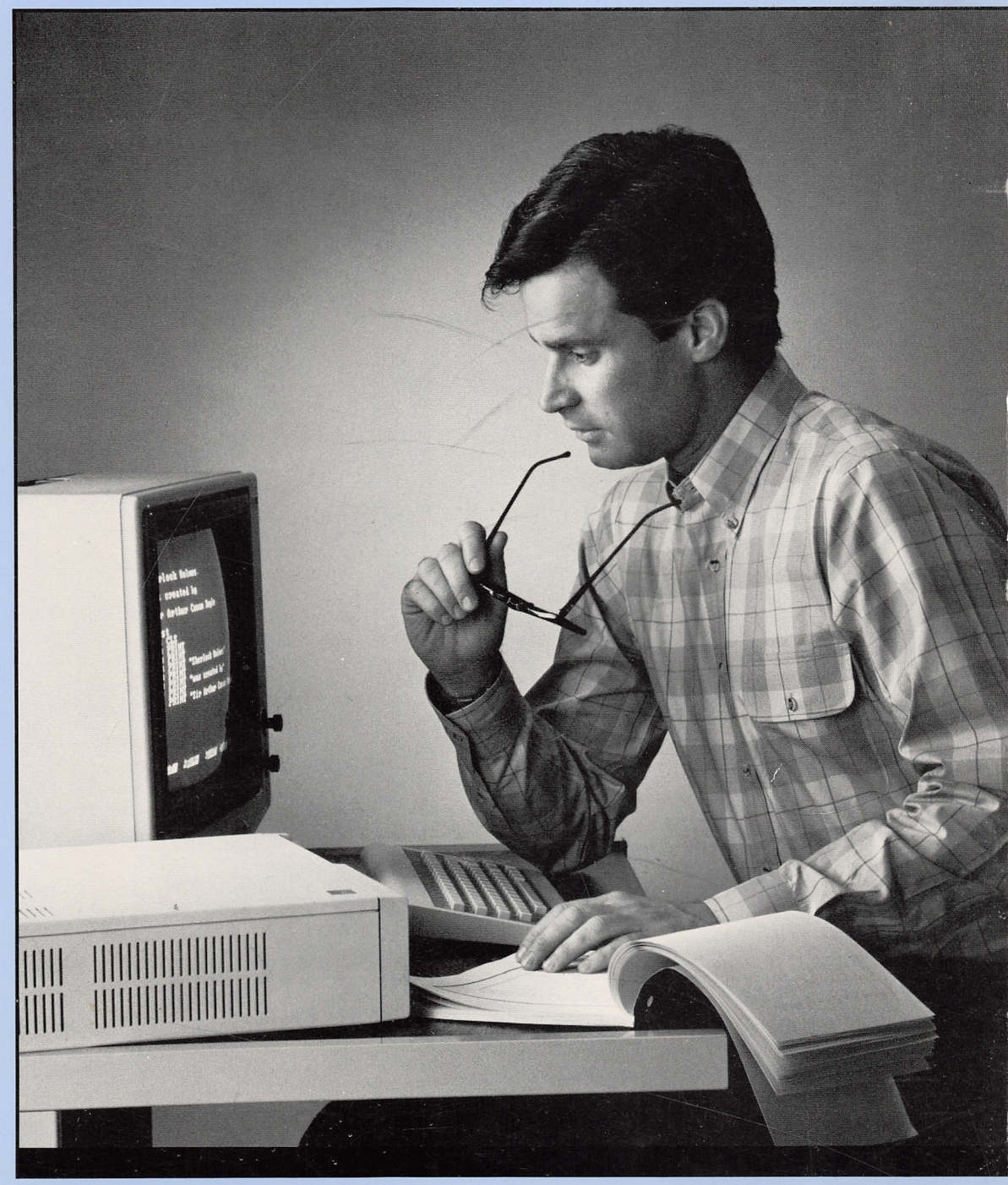
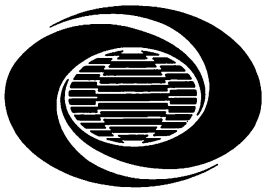
World Book
Discovery Center
Personal Computer Learning



Instruction Volume 1



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Instruction
Volume 1

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IBM PCjr VOLUME 1

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CHAPTER 1: GETTING TURNED ON

INFORMATION

To Turn the Computer On

1. Be sure the Basic Cartridge is pushed into the front of the PCjr. The label should be on the top side.

2. The disk drive should be empty with the latch pointing to the left.

3. Turn on the monitor (TV screen).

4. Turn on the computer. The power switch is on the back left corner of the disk drive unit.

5. On the screen you will see the IBM symbol. After about 6 seconds, the red "in use" light on the disk drive will come on. There will be a beep.

6. About 13 seconds later, you will see the entry message and OK.

7. The blinking bar under OK is called the cursor. It shows the spot on the screen where the computer is ready to print.

To Turn the Computer Off

1. Turn the monitor off.

2. Turn the computer off.

Do this now for practice. Then turn the computer on again.

INFORMATION

To Boot the System With IBM DOS 2.1

1. The computer and screen should be on, the red disk light should be off, and OK with the blinking cursor (bar) should be showing on the screen.

2. Put the IBM DOS 2.1 disk into the drive with the label facing upward as shown below. The disk should slide in easily. Do not force it.

3. Turn the latch switch at the left of the disk drive down.

4. Now, while holding down the Ctrl key and the Alt key, press the Del key.

5. The red "in use" light on the disk drive will come on and the disk will be read.

6. This message should appear.

```
Current date is Tue  1-Ø1-198Ø
Enter new date
```

Press the [Enter] key twice.

7. Notice the

```
A>
```

with the blinking cursor! This tells you that you are in DOS (Disk Operating System).

8. To get into BASIC, type

```
****************************************
*                                      *
*   basica                             *
*                                      *
****************************************
```

and press the [Enter] key.

The "a" stands for advanced.

9. Notice the OK is back. You are now in advanced BASIC. Turn the page to get started programming.

INFORMATION

In this book, you will see ENTER/RUN/OBSERVE. Each time, type the program line exactly as it is shown starting with the line number. Then press the [Enter] key to enter it into the computer.

ENTER/RUN/OBSERVE

```
10 print "hello"
```

Press [Enter].

Now type [R] [U] [N] and press [Enter] again.

Observe the screen.

CHANGE IT/RUN/OBSERVE

Change line 10 by typing it as shown below.

Don't forget to press [Enter].

```
10 print "goodbye"
```

Type RUN and press [Enter]. The computer will print your message exactly as you type it if you remember to put quotation marks around it.

INFORMATION

Notice that the white letters are above the key you must press to get them.

In order to get the black characters to appear, hold down [Shift] while you type them.

CHALLENGE

Create a one-line program to make the computer print your first name on the screen. RUN the program to make sure it works.

INFORMATION

A computer program is a list of commands for the computer to follow. Each line is given a line number. When told to RUN, the computer follows the commands in numerical order.

ENTER/RUN/OBSERVE

Be sure to press [Enter] after each line.

```
10 print "Sherlock Holmes"
20 print "221B Baker Street"
30 print "London, England"
```

Type RUN and press [Enter] to see what happens. To correct typing errors, use the [Backspace] key. If you have already entered the line, just type it again the right way. Often when the computer is told something it does not understand, it prints an error message on the screen and goes into its EDIT mode. It shows you the line that needs to be changed. Until you learn to use the EDIT mode, press [Enter] to get out of this mode, and then type the line again the right way.

CHANGE IT/RUN/OBSERVE

Add this line to your program and see what happens when you RUN the program.

```
15 print "Lives at:"
```

Even though you entered line 15 after line 3Ø, the computer follows the command in numerical order. Experienced programmers number lines by tens (1Ø, 2Ø, 3Ø, 4Ø ...) so there will be room to go back later and add lines.

CHANGE IT/RUN/OBSERVE

To clear the screen, type this:

```
cls
```

Now press the Enter key.

CHANGE IT/RUN/OBSERVE

To see the program commands again, type:

```
list
```

and press Enter.

CHALLENGE

Clear the screen. RUN the program. LIST it.

INFORMATION

You can also give the computer a command to clear the screen before printing the message when you RUN.

CHANGE IT/RUN/OBSERVE

Now add this line, RUN it, and see what happens.

```
5 cls
```

Whenever the computer is told CLS, it clears the screen and then goes on to the rest of the program. Using CLS before you print something on the screen makes your program look much neater and easier to read. You will not lose your program. LIST your program. Notice where line 5 is.

INFORMATION

After you type NEW, you cannot RUN or LIST your program. Type NEW and press Enter. It doesn't need a line number.

ENTER/RUN/OBSERVE

```
*****************************************
* new                                   *
*****************************************
```

Now type LIST and press Enter. No program should list because you used NEW.

From now on, always type NEW to erase your old program before starting a new one. If you don't, you could have some of the old program lines mixed in with your new program.

CHALLENGE

Enter NEW before you begin.

Program the computer to print your name and address on the screen. Use a separate line for each. RUN it. Then LIST. Add a line to make the computer print your phone number after your name but before your address. After you have run it this way, add another line so that your age is printed after your address. Add a command so that the screen is cleared before the information about yourself is printed.

INFORMATION

To print a blank line, use the PRINT command with nothing after it.

ENTER/RUN/OBSERVE

```
2Ø print "Sherlock Holmes"
3Ø print "was created by:"
4Ø print "Sir Arthur Conan Doyle"
```

RUN.

CHANGE IT/RUN/OBSERVE

```
15 print
25 print
35 print
```

RUN again to see the blank lines.
LIST.

CHANGE IT/RUN/OBSERVE

Change line 4Ø by retyping it.

```
4Ø print "      Sir Arthur Conan Doyle"
```

Spaces placed inside quotation marks will be printed as blank spaces on the screen. This

is helpful when you want to center words between the left and right sides of the screen.

CHALLENGE

Type NEW and press Enter.

Create a program that will print a short 3-line news headline about your favorite star. Have each line centered between the left and right sides of the screen.

Add blank prints to center your message between the top and bottom edges of the screen.

Use LIST and RUN to check your program.

ENTER/RUN/OBSERVE

Remember that a space is an important character!

```
10 cls
20 print "              C"
30 print "              O"
40 print "            IBM"
50 print "               PERSONAL"
60 print "          COMPUTER"
70 print "              T"
80 print "              E"
90 print "             JR"
```

Here are some handy ways to use LIST.

Try entering each command below (one at a time!) and press Enter. Observe what is printed each time.

```
list 50
```

```
list 10-40
```

```
list -60
```

****
* list 3Ø- *
****

These are four ways to use LIST. They'll come in handy when working with longer programs which will not all fit on the screen at one time.

CHALLENGE

Cause the following lines to be listed on your screen.

1. Any 1 line of your program.
2. The entire program.
3. The last 3 lines of the program.
4. Every line except the last one.
5. Every line except the first one.
6. Any 4 lines in the middle of your program.

INFORMATION

A comma (,) used with a PRINT statement causes an item to be printed in the next zone. Remember to put quotation marks around the words you want printed.

ENTER/RUN/OBSERVE

Type this and RUN to see the two zones.

```
10 print "Dogs","Cats"
20 print
30 print "Lassie","Morris"
40 print ,"Garfield"
50 print "Snoopy"
```

CHANGE IT/RUN/OBSERVE

Change line 50 to include the name of your favorite cat or dog in the correct column.

CHANGE IT/RUN/OBSERVE

If you don't like such big type and would like more characters in one line, add this line to the above program.

```
*******************************************
*  5 width 8Ø                             *
*                                         *
*******************************************
```

RUN.

CHANGE IT/RUN/OBSERVE

```
*******************************************
* 1Ø print "dogs","cats","dwarfs","bears", *
* "misc."                                 *
*                                         *
* 6Ø print ,,"Grumpy","Smokey","Yoda"     *
*                                         *
*******************************************
```

RUN to see the five zones you can use with screen width 8Ø.

Type NEW to get rid of this.

The WIDTH command sets the number of characters in one line. WIDTH 4Ø, WIDTH 8Ø, and WIDTH 2Ø are your only choices. Sometimes when changing widths, the left part of the screen is too far left to see. To correct this, hold down the Ctrl key, the Alt key and press the PgDn key on the right side of the keyboard.

This combination of keys moves the entire screen to the right. To move back left, press the Ctrl, Alt and the PgUp key.

Try moving the display around with these keys.

CHANGE IT/RUN/OBSERVE

```
 5 width 8Ø

1Ø cls
2Ø print "City",,"State",,"Zip"
3Ø print
4Ø print "Bonegap",,"IL",,"62815"
5Ø print "Towaoc",,"CO",,"81334"
6Ø print "Yoakum",,"TX",,77995
```

Notice that numbers do not need quotation marks to be printed. Observe the spacing.

Type NEW.

ENTER/RUN/OBSERVE

```
 5 width 8Ø

1Ø print 1,2,3,4,5,6,7,8,9,Ø
```

CHANGE IT/RUN/OBSERVE

```
5 width 2Ø
```

CHANGE IT/RUN/OBSERVE

```
5 width 4Ø
```

CHANGE IT/RUN/OBSERVE

```
2Ø print 1,,2,,3,,4,,5,,6
```

Notice which numbers appear where.

Try this with different widths.

CHANGE IT/RUN/OBSERVE

Try this.

```
2Ø print ,,1,,2
```

Then this.

```
2Ø print ,,,1,2
```

How many preset zones are allowed with width 2Ø?

How many with width 4Ø?

How many with width 8Ø?

CHALLENGE

a) Write a program that will make the following display on your screen:

```
     One                    Two
      1                      2
```

b) After you have done that, try this one:

```
Super                                        Great

          Super                 Great
                  Supergreat!
          Great                 Super

Great                                        Super
```

CHAPTER 1 REVIEW

Choose the command or key described.

COMMAND/KEY	DESCRIPTION
	This command sets the screen for an 8Ø, 4Ø or 2Ø character line.
	This command causes something to be printed on the screen.
	Pressing this key enters information into the computer.
	Entering this command causes the computer to follow the program in memory.
	This key moves the cursor to the left and is useful for correcting mistakes.
	This useful command clears the screen and places the cursor in the upper left-hand corner of the screen.
	Be careful! This command loses your program!
	This command will show you a list of the program.
	When used with PRINT, this causes the next character to print in the first space of the next zone.
	Holding down these three keys moves the entire screen to the right.

REVIEW (continued)

COMMAND/KEY	DESCRIPTION
	Holding down these keys moves the entire screen to the left.
	This combination of keys will cause the Disk Operating System (DOS) to be read into the computer's memory.

CHAPTER 2: GOTO, THE PROGRAMMER'S MERRY-GO-ROUND

INFORMATION

GOTO sends the computer directly to another program line. You must always use a program line number after GOTO. There must be a space between the word GOTO and the line number.

ENTER/RUN/OBSERVE

```
10 print "I am a great programmer."
20 goto 10
```

This program creates an endless loop. When you want to stop the program, hold down the green [Fn] key in the upper right corner and press the [B Break] key.

Notice that the computer tells you in which line the break was made. The blue [Alt] key allows you to get the blue symbols on the keyboard and the green [Fn] key allows you to get the green ones.

CHANGE IT/RUN/OBSERVE

```
15 print "BRAVO"
```

RUN. Then LIST.

CHANGE IT/RUN/OBSERVE

```
2Ø goto 15
```

RUN. Then LIST.

CHANGE IT/RUN/OBSERVE

```
 5 cls

2Ø goto 5
```

By clearing the screen and using GOTO to repeat the program, you can create a flashing effect. LIST, then RUN.

CHALLENGE

Write a program that will create your own endless loop using the GOTO command. Try to obtain a pleasing design that includes letters, numbers and symbols in columns. Go all out and have fun. LIST and RUN whenever you want to see how the program is coming along.

INFORMATION

The command CONT makes a program continue from the point at which it was stopped by Fn B Break or an END statement.

ENTER/RUN/OBSERVE

```
10 cls
20 print x
30 x=x+1
40 goto 20
```

The letter X is a variable. One is added to X every time the computer comes to line 30.

RUN the program, then stop it using Fn B Break.

Now enter:

```
cont
```

and see what happens.

Try breaking the program and then starting it again by both RUN and CONT. Notice what is different.

CHANGE IT/RUN/OBSERVE

```
*********************************************
* 2Ø print "x"                              *
*                                           *
*********************************************
```

CHANGE IT/RUN/OBSERVE

```
*********************************************
* 2Ø print x,y                              *
*                                           *
*********************************************
```

CHANGE IT/RUN/OBSERVE

```
*********************************************
* 4Ø goto 1Ø                                *
*                                           *
*********************************************
```

CHANGE IT/RUN/OBSERVE

Variables can be used along with words you want to print.

```
*********************************************
* 2Ø print "I am now printing #",x          *
*                                           *
*********************************************
```

CHALLENGE

Write a program that will print the multiples of three in one column and the multiples of five in another column. LIST and RUN your program.

INFORMATION

The command END stops the program.

ENTER/RUN/OBSERVE

```
10 cls
20 goto 70
30 print "try, try again."
40 end
50 print "don't succeed,"
60 goto 30
70 print "If at first you"
80 goto 50
```

LIST. Try to think through each line of this program.

CHANGE IT/RUN/OBSERVE

Type 40 and press Enter to delete line 40 from the program. RUN the program again. LIST. See the difference one command can make?

You will learn more powerful uses for END as you learn other commands.

CHALLENGE

Create a program similar to the one above that will print a favorite saying or poem of yours, or one that you make up yourself. Use GOTOs in your program.

CHAPTER 2 REVIEW

Choose the command or key described.

COMMAND/KEY	DESCRIPTION
	This command sends the computer directly to another line in the program.
	Pressing these keys will stop or interrupt your program. They enable you to get control of the computer.
	Entering this command will often cause a program to continue running from the point at which it was stopped.
	When your computer comes to this command, it ends the program.

CHAPTER 3: ADDING A LITTLE SPICE TO LIFE

INFORMATION

A semicolon (;) used along with a PRINT statement makes the computer print in the next space. The semicolon must be outside any quotation marks.

ENTER/RUN/OBSERVE

```
10 print "right"
20 print "here"
```

CHANGE IT/RUN/OBSERVE

```
30 print "right";
40 print "here"
```

ENTER/RUN/OBSERVE

```
10 cls
20 print "Jennifer  ";
30 goto 20
```

(leave 2 spaces)

CHANGE IT/RUN/OBSERVE

```
*********************************************
* 2Ø print "Jennifer        ";               *
*                                             *
*********************************************
```

(leave 8 spaces)

Notice the difference made by the number of spaces inside the quotation marks!

CHALLENGE

Wirte a program that will print <u>your</u> name all over the screen. Then see if you can change it so that:

1. Your name is printed in columns.
2. Each name is printed right after the last one, with no spaces in between.
3. Any design you choose.

INFORMATION

There are shortcuts to everything and since you are doing so well, I'll let you in on a few. Instead of pushing the space bar and never being sure exactly how many spaces you have, use the SPC(X) command. This command prints X spaces.

ENTER/RUN/OBSERVE

```
10 print "over" spc(15) "here"
```

There are 15 spaces between the words over and here. Notice that the SPC(X) command is <u>not</u> within quotation marks.

Here are some other shortcuts. By holding down the [Alt] key and pressing the [P] key, the word PRINT will appear. Try [Alt][G]. Try [Alt] with other keys. For the extremely lazy people, the PC Jr. has ten green function keys reserved for some of the often used commands like LIST, RUN and CONT. The rectangles

at the bottom of the screen show what each key is programmed to do. Some of the keys have ENTER built into them so as soon as you press them, they work right away.

Try function key 2. To do this, hold down the [Fn] key and press the [2 / F2] key. Pretty nice?

Now key [F1]. After this one, you will have to press [Enter]. Now [F5]. The rest of them you probably aren't familiar with but don't worry, you will be soon!

INFORMATION

The KEY command allows you to change the function keys. It is a direct operation like LIST and RUN but can also be assigned a line number.

ENTER/RUN/OBSERVE

Change key number 3 so that whenever it is pressed, it prints my name. To do this, type:

```
key 3,"Jennifer"
```

and press [Enter]. The 3 tells the computer that you're changing key number 3.

Notice that key 3 on the display at the bottom of the screen now shows my name. Press keys [Fn] and [F3] several times. Was any part of the name cut off? The computer keeps track of the first 15 characters and disregards any extras entered, but only six appear at the bottom of the screen.

CHALLENGE

Change key 3 so it will print your name.

ENTER/RUN/OBSERVE

Using all the shortcuts you know, type in this program:

```
10 cls
20 x=x+1
30 print spc(x) "your name";
40 goto 10
```

CHALLENGE

Create your own message that moves across the screen.

CHAPTER 3 REVIEW

Choose the command or key described.

COMMAND/KEY	DESCRIPTION
	Used with a PRINT statement, this makes the computer print the next character in the next space.
	This command allows you to change the contents of a programmed key.
	This prints X spaces when used with PRINT.
	This is a shortcut for typing the command GOTO.
	This is a shortcut for typing the command PRINT.

CHAPTER 4: COPYING, SAVING AND LOADING ON DISK INFORMATION

Whenever you turn your computer off, any program in its memory is lost. There is a way for you to save these programs on a disk. Before you can save anything on a blank or new disk, the disk must be prepared so it will work with your computer.

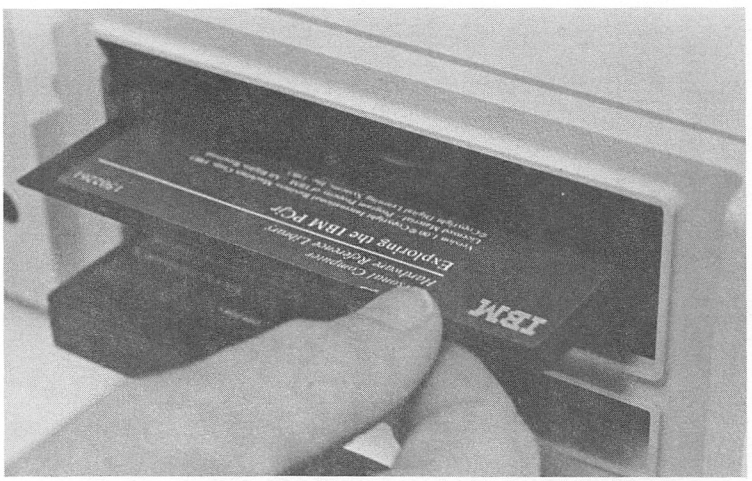
Once a disk is prepared, you can save many programs on it.

To Copy a Disk:

So that you do not damage the master copy of your DOS disk, it is wise to make a backup copy. You can then use the backup copy and put the master copy away in a safe place.

ENTER/RUN/OBSERVE

1. If the IBM 2.1 DOS MASTER is not in the drive, carefully put it in as shown in the picture below. BE SURE THE RED LIGHT ON THE DRIVE IS NOT ON.



2. Turn the latch switch at the left of the disk drive down.

3. Now, while holding down the [Ctrl] key and the [Alt] key, press the [Del] key.

4. The red "in use" light on the disk drive will come on and the disk will be read.

5. This message should appear.

   Current date is Tue 1-Ø1-198Ø
   Enter new date

   Press the [Enter] key twice.

6. Notice the

   A>

   with the blinking cursor! This tells you that you are in DOS (Disk Operating System).

7. With A> showing on the screen, type

   ```
   ************************************
   *                                  *
   * diskcopy a: b:/1                 *
   *                                  *
   ************************************
   ```

   and press [Enter].

8. Answer the questions on the screen. The original disk is the SOURCE. The backup copy you want to make is the TARGET disk. The SOURCE disk is already in the drive. If you have one drive, switch the disks when told. Never switch the disks when the red "in use" light is on.

9. When

   Copy another (Y/N)?

   appears on the screen, press [N] and A> will appear.

To Compare a Disk:

To be sure the copy is good, you will ask the computer to compare the original with the copy.

1. Type in the command below.

```
**************************************
*                                    *
* diskcomp a: b:/1                   *
*                                    *
**************************************
```

2. Do as the computer tells you and switch the disks whenever necessary. The SOURCE disk in this case is the MASTER. The TARGET disk is the one on which you made the copy.

3. When the message

   Compare more diskettes (Y/N)?

   shows, press [N].

If all went well, you now have a good copy of the master disk. Take out the master DOS disk and put your backup disk in drive A. You should not use the original DOS disk anymore than necessary. Store it in a safe place and use the new backup disk you have made.

INFORMATION

Return to BASIC now by typing:

```
basica
```

First you need a program to save.

1. Write a program using any of the commands you have learned.

2. Decide on a name for your program. Use a short word with no spaces as your program name.

3. Now type and enter:

```
save "name"
```

This saves the program on the disk in drive A. If you want to use drive B, you'll have to type:

```
save "b:name"
```

That's all there is to it. When the cursor is back on the screen and the red "in use" light goes off, your program is saved. Erase your program from the computer's memory with NEW. If you followed the instructions, the program should still be saved on the disk.

INFORMATION

To load a program from a disk back into the computer, use the LOAD command.

ENTER/RUN/OBSERVE

1. Make sure the disk is still in the drive.

2. Now type and enter:

```
**********************************
*                                *
* load "name"                    *
*                                *
**********************************
```

3. Try running the program. It should run exactly as before.

NOTE: Whenever you LOAD a program from disk into the computer, the computer erases any programs in its memory.

That's all there is to loading programs from disk into the computer. Now that you know these commands, SAVE and LOAD, use them to save good programs that you write.

CHALLENGE

Write two programs and save them both on the same disk. Give them different names. After they have been saved on disk, load each one, and try running it to be sure it was saved and loaded correctly.

INFORMATION

The command FILES lists the programs that are stored on any one disk. FILES is another direct operation for your computer.

ENTER/RUN/OBSERVE

Put a disk with several programs on it in the drive. Type:

```
**********************************************
* files                                      *
**********************************************
```

and press Enter. The names of the programs that you have saved on the disk should be on the screen. Notice that the program is stored as

name .BAS

In place of *name* will be the name you gave your program. The .BAS at the end tells you your program was stored from BASIC.

Use FILES whenever you want to see what is stored on a disk. If you have two drives, you can ask for the listings of the disk in the second drive by entering:

```
*********************************************
*                                           *
* files "b:"                                *
*                                           *
*********************************************
```

CHAPTER 4 REVIEW

Choose the command or key described.

COMMAND/KEY	DESCRIPTION
	This command copies a program from the computer's memory onto a disk.
	Use this to copy a program from a disk into the computer's memory.
	This command returns you to BASIC from DOS.
	In BASICA, this command lists all the programs stored on a disk.
	This DOS command will compare a copied disk with the original.
	This is the DOS command used to copy a disk.

CHAPTER 5: CREATE A COLORFUL VOCABULARY

INFORMATION

Words may be printed in color. SCREEN Ø, 1 puts the computer in the color text mode. COLOR C selects the color. C can be any number from Ø to 15.

ENTER/RUN/OBSERVE

```
10 cls
20 screen 0, 1
30 color 4
40 print "These words are colorful!"
```

LIST.

CHANGE IT/RUN/OBSERVE

```
30 color 2
```

LIST again.

CHANGE IT/RUN/OBSERVE

```
40 print "green"

50 color 4

60 print "red"

70 color 7
```

LIST. What color is the list?

CHANGE IT/RUN/OBSERVE

```
40 print "green";
```

CHALLENGE

Create a program that will ask, "What's black and white and red all over?" Choose your favorite answer. Use green letters for the question and answer. Print white in white letters and red in red letters.

INFORMATION

The colors are:

Ø - Black	8 - Gray
1 - Blue	9 - Light Blue
2 - Green	1Ø - Light Green
3 - Cyan	11 - Light Cyan
4 - Red	12 - Light Red (Pink)
5 - Magenta	13 - Light Magenta
6 - Brown	14 - Yellow
7 - White	15 - Bright White

ENTER/RUN/OBSERVE

```
1Ø cls
2Ø screen Ø, 1
3Ø input c
4Ø color c
5Ø print "color #" c
6Ø goto 3Ø
```

CHANGE IT/RUN/OBSERVE

Try numbers between 17 and 31. Let your last INPUT be #7 to return to white.

CHALLENGE

Create a colorful message which describes how you feel today. Can you make some words flash?

CHAPTER 5 REVIEW

Choose the command or key described.

COMMAND/KEY	DESCRIPTION
	This and the COLOR command are used to make the computer print in color.
	This and SCREEN Ø,1 are used to print words in color. N can be from Ø to 31.

REFERENCE

COMMAND/KEY	DESCRIPTION
Alt G	These two keys are a shortcut for typing GOTO. (p. 33)
Alt P	These two keys are a shortcut for typing PRINT. (p. 33)
Backspace	The backspace key erases as it moves the cursor to the left. (p. 6)
CLS	This command clears the screen and places the cursor in the upper left corner of the screen. (p. 7)
COLOR N	This and SCREEN Ø,1 are used to print words in color. N can be from Ø to 31. (p. 48)
,	The comma causes the cursor to move to the first space in the next preset zone. (p. 15)
CONT	After stopping a program with BREAK or END, entering CONT will cause a program to continue running from the point at which it was stopped. (p. 25)
END	When your computer comes to this command, it ends the program. (p. 28)

REFERENCE (continued)

COMMAND/KEY	DESCRIPTION
Fn + B Break	Pressing these two keys at the same time will stop or interrupt your program. (p. 22)
Enter	Pressing this key enters information into the computer. (p. 4)
GOTO	This command sends the computer to another line in the program. (p. 22)
KEY	The KEY command allows you to redefine the programmed keys. (p. 35)
LIST	Entering LIST will give you a listing of the program. (p. 7)
NEW	Be careful! This command loses your program! (p. 9)
PRINT	This command causes something to be printed on the screen. (p. 4)
RUN	Entering RUN causes the computer to follow the program in memory. (p. 4)
SCREEN Ø,1	This and the COLOR command are used to make the computer print words in color. (p. 48)
;	A semicolon used with a PRINT statement makes the computer print in the next space. (p. 31)

REFERENCE (continued)

COMMAND/KEY	DESCRIPTION
SPC(X)	This command prints X spaces when used with PRINT. (p. 33)
WIDTH	This command sets the screen for an 8Ø, 4Ø, or 2Ø character line. (p. 16)

DISK REFERENCE

COMMAND/KEY	DESCRIPTION
BASICA	This command returns you to BASIC from DOS. (p. 3)
Ctrl Alt Del	This combination of keys will cause the Disk Operating System (DOS) to be read into the computer's memory. (p. 2)
DISKCOMP	This DOS command will compare a copied disk with the original. (p. 41)
DISKCOPY	This is the DOS command used to copy a disk. (p. 40)
FILES	In BASICA, this command lists all the programs stored on a disk. (p. 45)
LOAD	Use this to copy a program from a disk into the computer's memory. (p. 43)
SAVE	This command copies a program from the computer's memory onto a disk. (p. 42)

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