

CONSUMER SYSTEMS  
PERSONAL FINANCE

# **TRS-80 MICRO COMPUTER SYSTEM**

Catalog Number:  
26 -1602

CUSTOM MANUFACTURED IN U.S.A. BY RADIO SHACK  A DIVISION OF TANDY CORPORATION

## PERSONAL FINANCE PACKAGE

The Radio Shack PERSONAL FINANCE PACKAGE is a complete personal accounting system. It will track and total all of your income and expenses by expense accounts. Your checks are added to proper expense accounts according to **expense codes**. Your expenses and income, over any period of time, may be displayed by the "Budget Summary" program.

This package is far more than a checkbook balancer, rather it is a business like approach to total financial management.

The four PERSONAL FINANCE programs and brief descriptions of each, are:

- I. **CHECKBOOK INITIALIZATION** — This program is usually run once. It accepts input (from the keyboard) of your current balance, outstanding checks and outstanding balances. Your current balance is calculated and an "Outstanding Checks" data tape may now be created.
- II. **CHECKBOOK BALANCING PROGRAM** — This program allows you to balance your checkbook. Once this program is loaded, your "Outstanding Checks" tape must be read-in. You then may enter new outstanding checks and deposits, and cancel any outstanding checks that have cleared the bank. Your current balance will be printed and a "Cancelled Checks" tape may be created.
- III. **MONTHLY BUDGET PROGRAM** — This program allows you to enter your salary, bonus, and expenses for the month. The program reads-in your "Cancelled Checks" tape and adds them to their designated expense accounts. Your total income, total expenses, and each expense account are tallied and may be recorded into a "Monthly Budget" tape.
- IV. **BUDGET SUMMARY** — Once loaded, this program allows you to read-in one or more "Monthly Budget" tapes and compiles a report of expenses and income. If you read-in only one "Monthly Budget" tape, you will receive a report for the month which that tape represents. If you read-in "Monthly Budget" tapes for January, February, and March, you will receive a report for the first quarter of the year.

The rest of these instructions will guide you through the PERSONAL FINANCE PACKAGE over a period of three months. The description of each program is given in terms of numbered steps. Each step corresponds to a step labeled on the **Data Flowchart** at the end of each program's instructions. The **Data Flowcharts** are a visual representation of the steps of each program. If you are reading Step 5 of the CHECKBOOK INITIALIZATION PROGRAM and start feeling lost turn to the "CHECKBOOK INITIALIZATION" Data Flowchart. Look at the flowchart for a box labeled Step 5. If you check the flowchart back to the start, you can see what you have already done to get to Step 5. Then, Step 5 will show you what you must do to continue.

## CASSETTE TAPES

There are four program tapes in this package. One tape for each of the four programs. Each program tape is clearly labeled with the name of the program. To RUN a program, load the program tape as described in the User's Manual for Level I.

There are three blank data tapes in your PERSONAL FINANCE PACKAGE. They are:

1. "Outstanding Checks" tape — This data tape is first created by the CHECKBOOK INITIALIZATION PROGRAM. This tape contains a list of all your outstanding checks by check numbers, their amounts, and a code which specifies which expense account they belong to. Additions and deletions to your "Outstanding Checks" must be made with the CHECKBOOK BALANCING PROGRAM. You will always have **one and only one** "Outstanding Checks" tape in active use.
2. "Cancelled Checks" tape — This tape contains a list of all cancelled checks for each month. At the beginning of each month, a new "Cancelled Checks" tape will be started. The January "Cancelled Checks" tape contains all cancelled checks written in January. If you receive cancelled checks from the bank which were written in February, you must start a new tape called February "Cancelled Checks". All "Cancelled Checks" tapes are created by the CHECKBOOK BALANCING PROGRAM.
3. "Monthly Budget" tape — This tape is created by the MONTHLY BUDGET PROGRAM. At the end of the month of January, all cancelled checks will have been recorded on the January "Cancelled Checks" tape. The "Cancelled Checks" tape is used to compute total income and expenses for the month of January. The MONTHLY BUDGET PROGRAM reads-in the January "Cancelled Checks" tape and creates the January "Monthly Budget" tape. You will need a "Monthly Budget" tape for each month. However, there are ways to avoid having to purchase 12 tapes for each month.

All tapes should be carefully labeled with the month which the tape represents and the exact date on which something was last recorded onto it. This will ensure that you never lose track of what was recorded on a tape or when the tape was recorded. It is also a good idea to **always** rewind a tape before you take it out of the cassette recorder. This package contains "Monthly Budget" and "Cancelled Checks" labels for new tapes. If you label your tapes in pencil, one label may be used for quite a while.

Your "Monthly Budget" and "Cancelled Check" tapes should be used on a monthly basis. Once you obtain a firm grasp of your PERSONAL FINANCE PACKAGE, you may switch to a different time period. Tapes may represent weekly or even quarterly information.

When a tape must be recorded, the computer will always print (RECORD) after the name of tapes to be used. Put the proper tape into the recorder and press the PLAY and RECORD buttons. If the tape you are using has been used before, it is a good idea to erase the beginning of the tape before recording new information. Set the tape counter to 000 and erase up to 020. When setting the cassette recorder to RECORD, always start at 010 to be sure that you don't record data on the leader of the tape. Erasing a tape is best done by pulling all plugs out of the CTR-41 recorder and then pressing the PLAY/RECORD buttons.

When the computer wants to read-in a tape, the name of the tape will always be followed with the words (PLAY) or (READ). Just put the tape into the recorder and press the PLAY button.

When recording on your "Cancelled Checks" tape you may need to add to the back of the tape. Each time you record on the tape, write down the tape counter value of where the tape stopped. The next time you wish to add to the tape, start the tape at a few numbers higher on the tape counter than where you stopped the last time. This will allow you to add to the "Cancelled Checks" tape later without recording over (clobbering) what was previously there.

It has been said that a computer should never be trusted. So it will be sure to happen — a tape will be erased accidentally or recorded incorrectly. If this should happen, you will be forced to go back to the beginning of a month and do the whole month over again. To minimize the chances of this happening to you, make second copies (backup copies) of the same tape. You'll be instructed on how to make second copies later.

## KEYBOARD ENTRY

Whenever you are requested to type information into the computer, a "?" will be displayed on the screen and the computer will wait for you to type a reply. Type the data just like the examples below. If one number is requested, type the number and then press ENTER. If two or three numbers are required, type the first number, then a comma, the second number, another comma and so on. After you have typed all of the required numbers, press ENTER. **Never** place a comma at the end of the line. Be sure to type the correct quantity of numbers. If anything goes wrong, the TRS-80 will print WHAT? and then another "?". You should type in your values again as if nothing happened. Example:

ENTER <AMOUNT>, <CODE>?3.50, 6

(the computer asked for two values and you replied with two values — O.K.).

ENTER <CHECK NO.>, <AMOUNT>, <CODE>?105, 40

(the computer asked for three values and you replied with only two — not O.K.).

WHAT?

(note: only 2 values entered)

? 105, 40, 3

(now you replied with the three values and the computer is happy).

When the computer displays numbers on the video display, they will not be in neat accounting form. This means that your computer will print \$40.5 and not \$40.50. The TRS-80 is not programmed to print trailing zeroes which occur after the decimal point. Other examples are:

40.00 is displayed as 40

030.05 is displayed as 30.05

The same rules apply when you type numbers on the keyboard. If you type 3.00, it is the same as typing a 3; 80.60 is the same as typing 80.6 and a 03 is the same as typing a 3.

Throughout all four programs, you will be asked questions. You must answer "yes" or "no" questions by typing a 1 or a 2 and then pressing ENTER. The computer will display (1=YES, 2=NO). **Always** type 1 and press ENTER to answer "yes". **Always** type 2 and press ENTER to answer "no". Always check what you've typed **before** you press ENTER. You can always backspace (←) and correct an entry before you press ENTER.

## EXPENSE CODES

Your PERSONAL FINANCE PACKAGE can keep track of up to 32 separate expense accounts. These accounts are numbered 0 through 31. The computer only knows the account numbers, called Expense Codes. The computer does not know what each account means; it only knows how to group together all expenses which have the same expense codes. **NEVER USE AN EXPENSE CODE OTHER THAN 0 THROUGH 31!** You may use any of these numbers (0 through 31) for any expense account. The others, if not used, will always have a value of zero. If you have an expense code which is not currently being used, you may start using it to keep track of a new expense at any time. Simply start using that expense code.

You'll find a detailed RUN of all four programs in the following pages. The numbers and expenses used are numbers and expenses very close to what most people would use. There are several intentional mistakes in the examples to show you how to correct them.



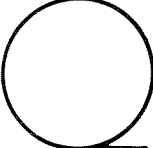
## SETTING UP EXPENSE ACCOUNTS

Use the following nine expense accounts and expense codes for this exercise:

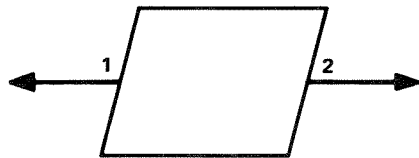
CODE	TYPE OF EXPENSE
0	Rent
1	Telephone
2	Natural Gas
3	Water
4	Electricity
5	Food
10	Transportation
12	Clothes
31	Miscellaneous

Record each of these on the PERSONAL FINANCE CODE LIST found at the back of this manual. Write in pencil so that you can change the names of the accounts later. Once you start an account, it should be continued until the end of the year. At the beginning of each year, you can rearrange the accounts as you wish. The account names can be changed at any time but, take care; to avoid getting things mixed-up, wait until next year to change them!

The flowcharts in these instructions use only the following symbols:

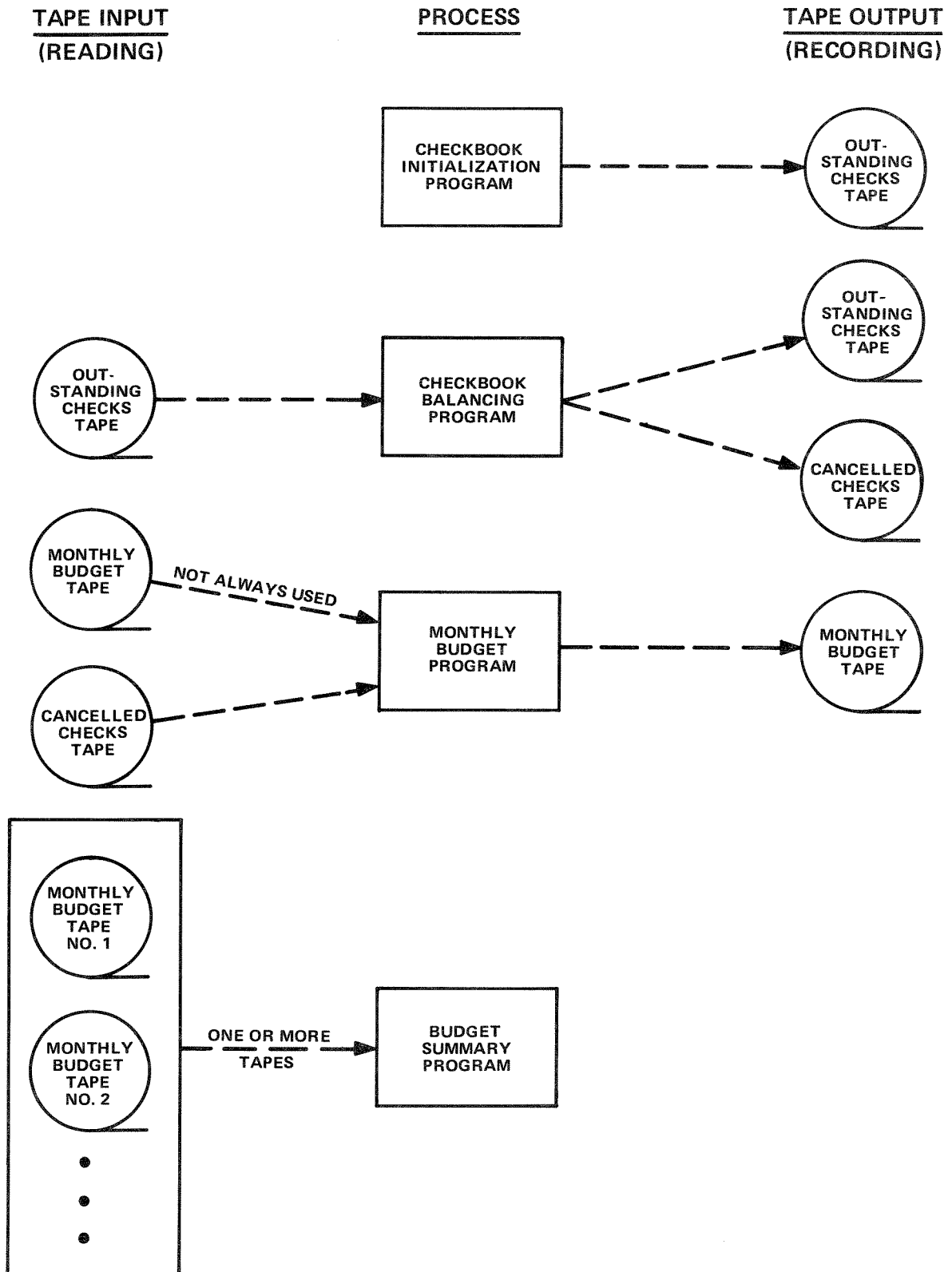
NAME	SYMBOL	FUNCTION
START/STOP		START OR END OF PROGRAM
INPUT/OUTPUT		REPRESENTS INFORMATION DISPLAYED BY THE COMPUTER OR INFORMATION ENTERED VIA THE KEYBOARD
MAGNETIC TAPE		DENOTES THE RECORDING (WRITING), OR PLAYING (READING) OF A CASSETTE TAPE

The input/output symbol will often have two output lines labeled 1 and 2 as shown below:



When you have answered a question, in that step, with a 1 or 2, follow the line with the same number to proceed to the next step. Notice that it is not always necessary to go through all of the steps — unnecessary steps may be bypassed.

AN OVERVIEW OF THE TOTAL PERSONAL FINANCE  
PACKAGE AND ITS PROGRAMS.



## I CHECKBOOK INITIALIZATION PROGRAM

Set up the imaginary finance system, shown below, so that you can easily follow the discussions and steps in the text. Assume that the balance taken from your last bank statement was \$563.72 and that all of your old and recent outstanding checks are as of 2 February:

DATE	CHECK NO.	AMT.	DESCRIPTION	EXPENSE CODE
12/28	201	18.85	Telephone	1
1/1	202	140.00	Rent	0
1/4	203	25.00	Cash	31
1/16	204	7.95	Water	3
1/20	205	15.25	Electricity	4
1/22	206	42.63	Food	5
1/25	207	17.80	Telephone	1
1/26	—	50.00	DEPOSIT	
1/27	208	20.30	Gas	2
2/1	209	140.00	Rent	0

To start your PERSONAL FINANCE system, load in the "CHECKBOOK INITIALIZATION" program and enter RUN.

### Step 1

The computer will display:

THIS IS YOUR CHECKBOOK INITIALIZATION PROGRAM.  
IT WILL FIGURE OUT YOUR CURRENT BALANCE AND SAVE IT  
ALONG WITH YOUR OUTSTANDING CHECKS.  
YOU NEED TO RUN THIS PROGRAM ONLY THE FIRST TIME YOU  
START BALANCING YOUR CHECKBOOK WITH THE SYSTEM OR  
IF YOU HAVE MADE ANY ENTRY ERRORS AND WOULD LIKE TO  
START OVER AGAIN.

IF YOU WISH TO ENTER DEPOSITS, TYPE 1. ELSE TYPE 2?

If you have made deposits, enter 1 and go to Step 2. If you didn't make deposits, enter 2 and go to Step 4. Your record shows that you did make one deposit so, type 1 and press ENTER.

### Step 2

TYPE IN THE AMOUNT OF DEPOSIT?

Since your record shows a deposit of \$50.00, type 50 (be sure it's correct). Press ENTER and proceed to Step 3.

### Step 3

ANY MORE DEPOSITS(1=YES,2=NO)?

If you have more deposits to enter, enter a 1 for "yes" and go back to Step 3. If all of your deposits have been entered, enter a 2 and go to Step 4. You only made one deposit — now enter a 2 and proceed to Step 4.

### Step 4

IF YOU WISH TO ENTER OUTSTANDING CHECKS TYPE 1, ELSE 2?

If you wish to enter outstanding checks enter 1 and go to Step 5. If you have no outstanding checks, enter 2 and go to Step 7. Your record shows you have outstanding checks (check numbers 201 through 209) so you must enter a 1.

### Step 5

TYPE <CHECK NO.>,<AMOUNT>,<CODE>?

Enter the three values asked for and separate them by commas as follows:

201, 18.85, 1

Before you press ENTER, double-check your values. After you press ENTER, proceed to Step 6. If at any time you repeat a CHECK NUMBER, the computer displays:

SORRY, AN ENTRY ALREADY EXISTS FOR THIS CHECK NO.

and will go to Step 6.

### Step 6

ANY MORE CHECKS(1=YES,2=NO)?

If you have more outstanding checks to enter, type in a 1 and go back to Step 5. When you have finished entering outstanding checks, enter 2 and go to Step 7. You have more checks to enter (202 through 209) so enter a 1 and go to Step 5. You will need to answer with a 1 a total of eight times to enter all nine checks. The ninth time the computer gets to Step 6, you are finished. Enter 2 ("NO") and proceed to Step 7.

### Step 7

TYPE IN YOUR PREVIOUS BALANCE?

Enter the balance from your last bank statement, then go to Step 8. Type 563.72 and press ENTER.

### Step 8

The computer displays:

YOUR CURRENT BALANCE = \$186.66 (you were told about errors)

You will get the balance that is currently in your checkbook. If the computer's balance does not match your checkbook's balance, then either your arithmetic is bad, or you typed an incorrect number. The balance shown above will, of course, be different than yours. The balance is wrong! It should have 185.94 (according to hand calculations). Proceed to Step 9.

### Step 9

IF YOU WANT TO SEE YOUR CHECKS, TYPE 1. ELSE2?

If you'd like to see what you typed in, enter 1 and go to Step 10. If you don't care (but you really should) enter a 2 and go to Step 11. It's important to see the check listing to look for mistakes. Type a 1 and go to Step 10.

### Step 10

Your balance will be different than the balance in the example:

201	\$18.95	1
202	\$140	0
203	\$25	31
204	\$7.95	3
205	\$15.25	4
206	\$42.63	5
207	\$17.08	1
208	\$20.3	2
209	\$140	0

END OF LIST

The computer can display only 11 checks at a time (so they don't run off the top of the screen). If the computer has displayed all of your outstanding checks, it will then display END OF LIST, as it did above and proceed to Step 11. If the computer has more checks to display, it will provide the statement:

TO CONTINUE LIST, PRESS ENTER?

When you have checked the current list for errors, press ENTER to get the next portion of your checks. Eventually, the computer will type END OF LIST and proceed to Step 11.

By looking at the example list, you can see an error; check number 207 should have been for the amount of \$17.80. If this had been your error, you would have to press BREAK to stop the program, type RUN and start all over again. After this error has been corrected, the computer displays:

CURRENT BALANCE = \$185.94

Proceed to Step 11.

#### Step 11

IF YOU WANT TO SEE YOUR DEPOSITS, TYPE 1, ELSE 2?

If you want to look at your deposits, type 1 and go to Step 12. If you don't want to check your deposits, enter 2 and go to Step 13. You'll want to check the deposits to make sure that none were entered incorrectly. Type 1 and proceed to Step 12.

#### Step 12

The computer prints out a list of up to 11 deposits at a time. If you have more deposits, the computer will type:

TO CONTINUE LIST, PRESS ENTER?

After you press ENTER, the next deposits will be displayed. Once the computer has shown all of the deposits, it will display END OF LIST and then PRESS ENTER TO CONTINUE?. Press ENTER and the computer will display:

\$50  
END OF LIST  
PRESS ENTER TO CONTINUE?

Press ENTER (the deposit is correct) and go to Step 13.

#### Step 13

TO SAVE YOUR OUTSTANDING CHECKS AND BALANCE, LOAD THE  
'OUTSTANDING CHECKS TAPE' (RECORD), THEN PRESS ENTER?

The computer is waiting for you to allow it to create your "Outstanding Checks" tape. The tape labeled "Outstanding Checks" is provided in your PERSONAL FINANCE PACKAGE. Put the tape into the recorder and advance ahead of the leader. Press PLAY and RECORD on the recorder. Be sure the volume is set to at least 7 or 8. Press ENTER and the computer will place a record of your balance and outstanding checks onto the tape. The computer will display WRITING TAPE. When the computer is finished, proceed to Step 14.



#### Step 14

TO ADD TO OR REMOVE FROM YOUR LIST OF OUTSTANDING CHECKS YOU  
WILL HAVE TO RUN THE CHECKBOOK BALANCING PROGRAM!

GOOD LUCK !!!

END OF SESSION

READY

>\_

At this point, you are finished with the first program. You will probably never have to RUN the CHECKBOOK  
INITIALIZATION PROGRAM again. The other three programs will take care of things.

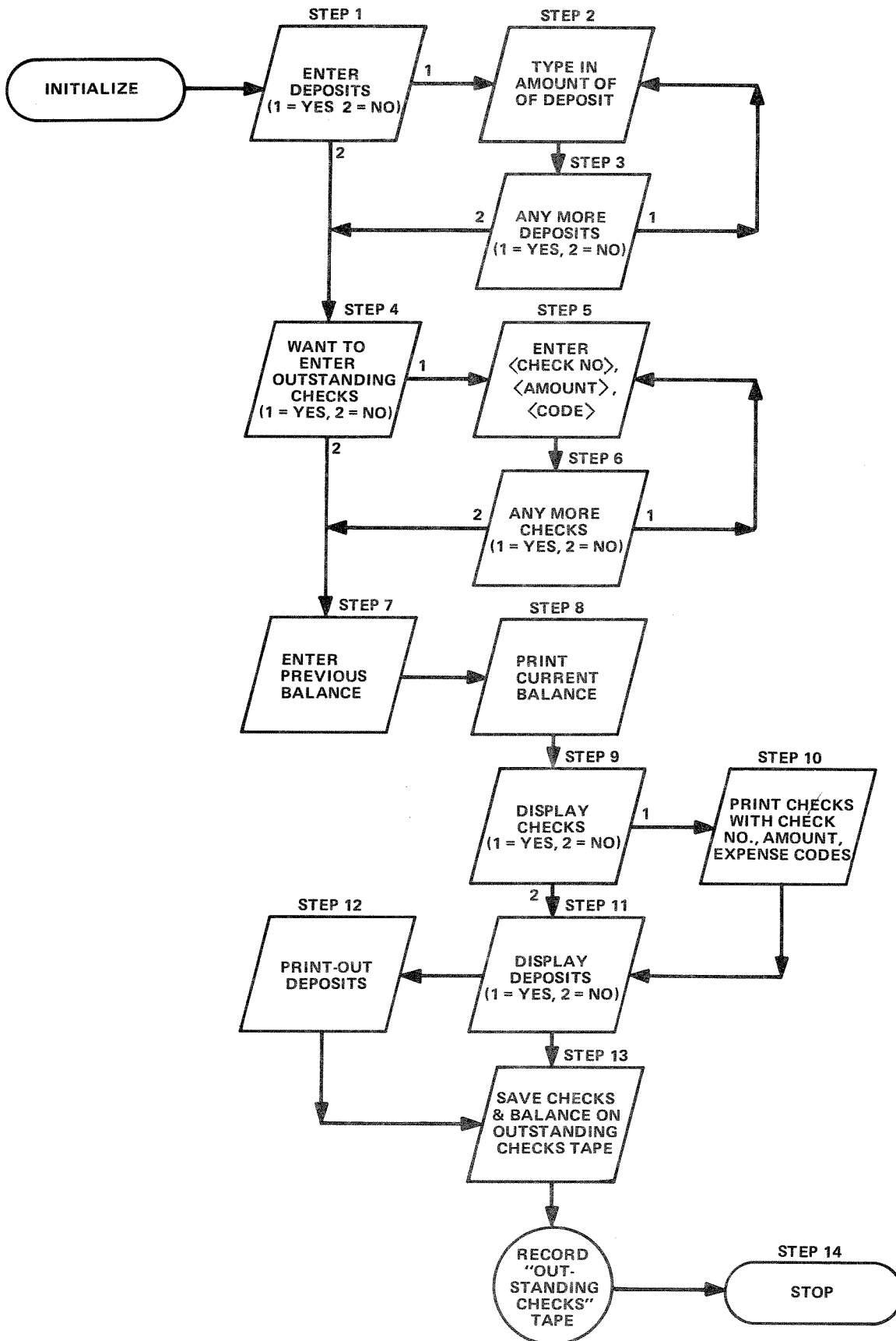
#### BACKUP & PROBLEMS

If you wish to make a second, or backup, tape of your "Outstanding Checks", you may now rewind the first tape and  
put in a second tape just as you did before. Now type GOTO 5000 after the ">" and the computer will jump back to  
Step 13.

If you wish, you can record two copies of your data on the same tape. After the first recording is finished, advance the  
tape a few numbers. Then type GOTO 5000 to record a second time. It is a good idea to record a second copy of your  
data on the same tape, if possible, or go to another tape.

If the computer types WRITING TAPE but never proceeds to Step 14, something has gone wrong. If this happens to  
you, press RESET on the back of the computer. This will get a READY > on the screen. The program and data are  
still in the machine, so rewind your "Outstanding Checks" tape and type GOTO 5000 to get another try at recording  
the data onto the tape.

# I. CHECKBOOK INITIALIZATION.



## II CHECKBOOK BALANCING PROGRAM

Assume that on February 25th you received a bank statement and a group of cancelled checks. The returned checks are:

201	\$ 18.95	205	\$15.25
202	\$140.00	207	\$17.80
203	\$ 25.00	208	\$20.30
204	\$ 7.97		\$ 2.00 Service charge

In the meantime, you wrote checks and made deposits as follows:

Check No.	Amount	Description	Expense Code
210	\$ 25.25	Cash	31
211	\$ 20.00	Transportation	10
212	\$ 18.23	Telephone	1
213	\$ 30.89	Food	5
214	\$ 45.25	Clothes	12
215	\$ 7.56	Water	3
	\$200.00	DEPOSIT	
	\$ 45.00	DEPOSIT	

Once you have received your bank statement you can RUN the "CHECKBOOK BALANCING" and "MONTHLY BUDGET" programs, one right after the other. When the programs are run this way, your expenses for a month will be the total of all the checks that cleared the bank between bank statements. This is the **easiest** way to use the PERSONAL FINANCE PACKAGE. If you want expenses to total **exactly** the checks you wrote in a calendar month, you'll have to wait for all checks written in that month (say January) to clear the bank. This will probably mean waiting until mid-March for all the January checks to clear. This method will be described later in this manual under **DATA JUGGLING**. Use the easy method of exactly following bank statements, as shown in the example above. Again, with this method, the CHECKBOOK BALANCING PROGRAM must be run first, followed immediately by the MONTHLY BUDGET PROGRAM.

### Step 1

"CLOAD" the CHECKBOOK BALANCING PROGRAM as you would load any other TRS-80 tape. Enter RUN and the computer will display:

CHECKBOOK BALANCING PROGRAM

TO READ IN OUTSTANDING CHECKS, LOAD THE OUTSTANDING  
CHECKS TAPE (PLAY), THEN PRESS ENTER?

Put your "Outstanding Checks" tape into the cassette recorder and press PLAY and then ENTER. Proceed to Step 2.

### Step 2

\* \* READING TAPE

As the computer is reading the "Outstanding Checks" tape, the familiar asterisks will flash just as they would when reading another tape. If the TRS-80 types WHAT? or the asterisks don't flash, you must press RESET (the button on the back left of the computer) and start at Step 1 again. If the tape is still not read correctly, use the secondary (backup) tape you should have made. Once the tape is read correctly, the program will proceed to Step 3.

### Step 3

YOUR PREVIOUS BALANCE WAS \$185.94  
WANT TO SEE OUTSTANDING CHECKS(1=YES,2=NO)?

Your balance will be displayed as shown above. If you wish to see your current list of outstanding checks, type 1 and go to Step 4. If you don't want to see your checks, type 2 and proceed to Step 5. For this exercise, type 1 and go to Step 4.

#### Step 4

This is the same list that you received before. This list will, however, constantly change as you use the PERSONAL FINANCE system. As before, if the computer cannot display all of the checks on the screen, it will type:

TO CONTINUE LIST, PRESS ENTER?

When you press the ENTER key, the computer will display the next set of checks. When all of the outstanding checks have been displayed, the computer will display:

END OF LIST  
PRESS ENTER TO CONTINUE

Press ENTER to erase the screen and proceed to Step 5.

#### Step 5

DO YOU HAVE CHECKS RECEIVED FROM THE BANK (IE, CHECKS YOU WISH TO CANCEL)? (1=YES,2=NO)?

If you have checks to cancel, type 1 and go to Step 6. If you don't have checks to cancel, type 2 and proceed to Step 9. Again, type 1, since you need to cancel checks. Proceed to Step 6.

#### Step 6

TYPE IN CHECK NUMBER OF A CHECK TO BE CANCELLED?

Here, you should give the computer the numbers of the checks that have cleared the bank. You can simply lay the checks in a stack and, as you type in the number of the top check, turn it over. In this example, type in 201 and press ENTER. Proceed to Step 7.

#### Step 7

ANY MORE CHECKS TO BE CANCELLED (1=YES,2=NO)?

If you have more check numbers to cancel, type 1 and return to Step 6. If you are finished entering checks, type 2 and go to Step 8. Repeatedly answer 1 in order to get back to Step 7. After you have entered check numbers 202, 203, 204, 205, 207 and 208, type 2 and proceed to Step 8. If you type in a check number that is not in the list of outstanding checks, or a number that has been previously cancelled, the computer will display CHECK NOT FOUND, followed by the ANY MORE CHECKS message. Eventually you will continue to Step 8.

#### Step 8

LOAD A CANCELLED CHECKS TAPE (RECORD), THEN PRESS ENTER?

Put your "Cancelled Checks" tape for this month into the cassette recorder and set it for recording. Press ENTER and the screen will display, WRITING TAPE on the screen. All the checks you cancelled will be written onto this tape. Later, you will be shown how to use more than one "Cancelled Checks" tape. This will happen if you run the CHECKBOOK BALANCING PROGRAM more than once a month.

#### Step 9

ENTER NEW OUTSTANDING CHECKS (1=YES,2=NO)?

If you have new outstanding checks (most people **always** do), type 1 and proceed to Step 10. If you don't have any new outstanding checks, type 2 and go to Step 12. Since your record shows that you have six new outstanding checks (210 through 215), type 1 and proceed to Step 10.

#### Step 10

TYPE <CHECK NO.>, <AMOUNT>, <CODE>?

In the example, type 201, 25.25, 31, press ENTER and proceed to Step 11.

### Step 11

If the check number you typed is already entered, the computer will display:

SORRY, ENTRY ALREADY EXISTS FOR THIS CHECK NO.

If this message is not typed, your check number is good. In either case, the computer will display:

ANY MORE CHECKS (1=YES,2=NO)?

If you have more checks to enter, type 1 and go back to Step 10. If you are finished entering outstanding checks, type 2 and go on to Step 12. Repeatedly answer 1 and go back to Step 10 until checks 211 through 215 have been entered. Finally, type 2 and go to Step 12.

### Step 12

ENTER NEW DEPOSITS (1=YES,2=NO)?

If you have made any deposits since you last ran the CHECKBOOK BALANCING PROGRAM, type 1 and go to Step 13. If you have not made any new deposits, type 2 and go to Step 15. The record shows that you made two deposits, so type 1 and go to Step 13.

### Step 13

TYPE IN AMOUNT OF DEPOSIT?

For this exercise TYPE 200, press ENTER and go to Step 14.

### Step 14

ANY MORE DEPOSITS (1=YES,2=NO)?

If you have more deposits to enter, type 1 and go back to Step 13. If you are finished, type 2 and go to Step 15. You need to enter one more deposit, so type 1 and go back to Step 13. Enter the \$45 dollar amount of the second deposit. Upon returning to Step 14, type 2 and proceed to Step 15.

### Step 15

YOUR BALANCE IS \$283.76

TO SAVE YOUR NEW LIST OF OUTSTANDING CHECKS, LOAD  
THE 'OUTSTANDING CHECKS TAPE' (RECORD), THEN PRESS ENTER?

Here, the computer displays your current balance (this should be the same as the balance in your checkbook). The computer is now waiting to make your new "Outstanding Checks" tape. Put the original "Outstanding Checks" tape into the recorder and rewind it. Set the tape counter to 000 and erase up to 020. Rewind and advance to 010 to make sure you are past the tape leader.

**Important!** Don't make a new "Outstanding Checks" tape until you are sure that the current balance is right and all of the numbers were entered correctly. If things are incorrect, press BREAK and start the program over. Remember, the computer will wait indefinitely, so take your time and **be careful!** Once you erase your "Outstanding Checks" tape you can't go back and start over again. For this important reason, you should have recorded a backup tape. If you have two tapes with the "Outstanding Checks" data on them, you can record over one of them and still have a spare in case something goes wrong and you have to do the month over again. Keep your backup "Outstanding Checks" tape until you're sure you will not need it. The tape can then be used as a backup tape for a later month.

### Step 16

When your tape is ready, press ENTER and the computer will display WRITING TAPE. Once all the outstanding checks have been recorded on the tape, the computer will display:

END OF SESSION  
READY  
>\_

## BACKUP TAPES

If you wish to make a secondary (backup) tape of either the "Cancelled Checks" tape or the "Outstanding Checks" tape, do the following:

For "Cancelled Checks", type GOTO 5000 and you will be returned to Step 8. Once the data is recorded, the computer will display the END OF SESSION message.

For "Outstanding Checks", type GOTO 6000 and you will be returned to Steps 15 and 16. When this data has been recorded, the computer will again display the END OF SESSION message. You must make backup tapes immediately after the program has finished. **DO NOT type NEW or turn off the machine, for this will cause all of the data to be erased.**

## ADDING DATA TO A TAPE

If you wish to balance your checkbook at any time during the month, run the CHECKBOOK BALANCING PROGRAM. Load the "Outstanding Checks" tape and enter new outstanding checks as the computer asks for them. Since you only get a bank statement once a month, you will not have to cancel any of your checks at this time. When the computer asks if you want to cancel checks, just say "no" (type a 2). Be sure to record the new list of outstanding checks onto your "Outstanding Checks" tape.

If you should cancel checks more than twice a month, you must save all cancelled checks on the same tape by adding to the back of the "Cancelled Checks" tape. Whenever you record something on the "Cancelled Checks" tape, write down the tape counter number where the tape stopped. Add to the tape by advancing about five numbers past where you stopped recording the last time. This way you will have more than one group of cancelled checks on the tape; one group following another.

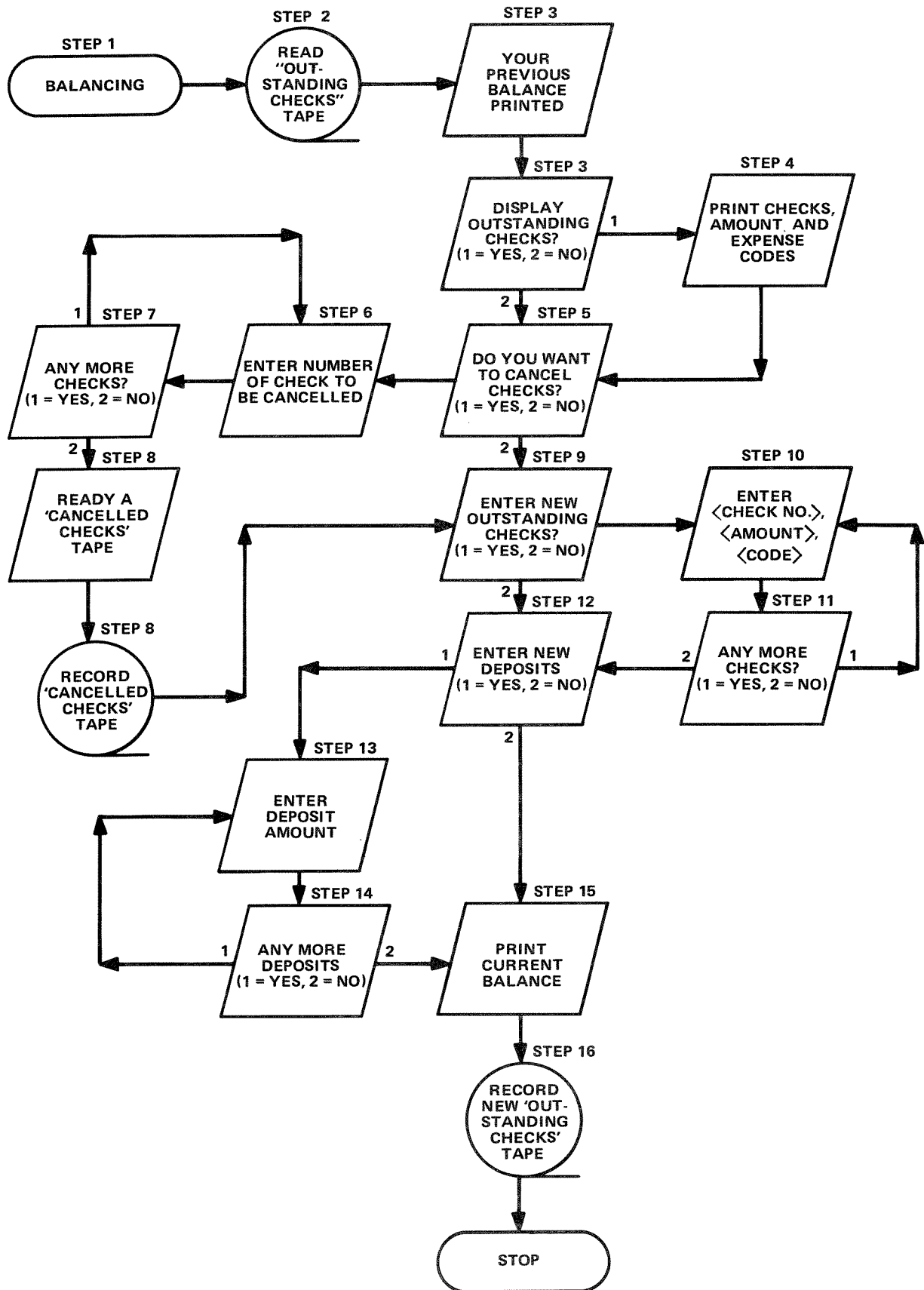
It is important that you do not record a backup copy of cancelled check data on the same tape. **Use two tapes;** one for regular use and the other for backup. If you were to save a second copy of cancelled check data on the same tape, then the MONTHLY BUDGET PROGRAM would add up all expenses twice because the information was on the tape twice.

## PROBLEMS

It will probably happen that you will, at least once, enter an outstanding check value incorrectly. Thanks to the CHECKBOOK BALANCING PROGRAM you can change the bad check. Here are the steps to follow:

1. Let the program create an "Outstanding Checks" tape with the bad check on it.
2. Run the CHECKBOOK BALANCING PROGRAM and read in the outstanding checks into the program.
3. When the program asks if you want to cancel checks, answer "yes" (1) and cancel the number of the incorrect check. When the computer displays LOAD CANCELLED CHECKS TAPE (RECORD), THEN PRESS ENTER?, **do not put a tape into the recorder.** Press ENTER and the computer will display WRITING TAPE (but it only thinks it is).
4. When the program asks for new outstanding checks, re-enter the check that you had previously entered incorrectly. This time enter it carefully, without the error. Note that once a check number is cancelled, that number may be used again.
5. When the computer wants to write a new "Outstanding Checks" tape, load the "Outstanding Checks" tape. The new tape will have the corrected values on it.

## II. CHECKBOOK BALANCING.



### III MONTHLY BUDGET PROGRAM

It is best to run this program only at the end of the month when all your cancelled check data for the month has been put on tape. Yet, if you wish, the MONTHLY BUDGET PROGRAM may be run several times a month. Each time it is run, the information must be read-in at the beginning of the program so that a running tally of your monthly expenses may be kept. The example shown here will reflect the once a month approach (where the CHECKBOOK BALANCING and MONTHLY BUDGET programs are run, one right after the other).

#### Step 1

"CLOAD" the MONTHLY BUDGET PROGRAM and type RUN. The program will print:

MONTHLY BUDGET PROGRAM

#### Step 2

IF THIS IS THE FIRST RUN FOR THIS MONTH, TYPE 1,  
OTHERWISE LOAD THIS MONTH'S 'MONTHLY BUDGET TAPE'  
(PLAY), AND TYPE 2?

If this is the first (or the only) time this program has been run this month, type 1 and proceed to Step 5. If you already have a "Monthly Budget" tape for this month, put it into the recorder, type 2 and go to Step 3. However, for this exercise, you should type 1 and proceed to Step 5.

#### Step 3

\* \* READING TAPE

As the computer reads in the current "Monthly Budget" tape, the asterisks should flash. If the computer does not flash, press RESET, rewind the tape and try again. If you still have trouble, try using your backup tape. Proceed to Step 4.

#### Step 4

YOUR EXPENSES SO FAR = \$253.21  
YOUR INCOME SO FAR = \$477.50

The numbers will vary. These are the values stored on the "Monthly Budget" tape and represent your expenses and income so far for this month. Proceed to Step 5.

#### Step 5

WANT TO ENTER SALARY, BONUS, OTHER INCOME (1=YES,2=NO)?

Once a month you should answer "yes" (type a 1) and enter your salary, bonus, and other income for the current month. So if you haven't entered these values, type 1 and go to Step 6. If you don't know what these values are, or have already entered them for this month, type 2 and go to Step 7. For the once a month exercise, type 1 and proceed to Step 6.

#### Step 6

TYPE IN SALARY. IF YOU DON'T WANT TO ENTER SALARY, TYPE 0?575  
TYPE IN BONUS. IF NONE TYPE IN 0?0  
TYPE IN OTHER INCOME. IF NONE TYPE 0?0

The computer will ask these three questions one at a time. Enter the values that are asked for. If you have already entered the values or don't know what they are, enter a zero. Above you see the numbers used for this exercise. Proceed to Step 7.



### Step 7

IF YOU WANT TO ENTER CASH EXPENSE, TYPE 1, ELSE TYPE 2?

If you have receipts for expenses paid in cash and not with checks, you can enter these at this point. Type 1 and proceed to Step 8. If you don't have any cash expenses, type 2 and go to Step 10. In this exercise, we have a \$2 service charge to be entered. Type a 1 and proceed to Step 8.

### Step 8

ENTER <AMOUNT>,<CODE>, 2, 31

Here, you enter the amount of the cash expense and the expense account code you want it added to. In the example, you have no other account to put the service charge under except "miscellaneous", expense code 31. Proceed to Step 9.

### Step 9

ANY MORE EXPENSE (1=YES,2=NO)?

If you have more cash expenses, type 1 and go back to Step 8. If you're finished entering expenses (as you are in this exercise), type 2 and proceed to Step 10.

### Step 10

IF YOU HAVE CANCELLED CHECKS YOU WISH TO HAVE CALCULATED INTO YOUR BUDGET AS EXPENSES, LOAD THE 'CANCELLED CHECKS TAPE' (PLAY) FOR THIS MONTH, AND THEN TYPE 1.

IF NO CANCELLED CHECKS ARE TO BE READ IN, TYPE 2?

If you want to feed in a "Cancelled Checks" tape and have the amounts of the checks added to their respective accounts, load the tape, type 1 and go to Step 11. If all cancelled checks have already been read in, type 2 and go to Step 13. Be sure to read in a set of cancelled checks once and only once. For this exercise, load the January "Cancelled Checks" tape, type 1 and go to Step 11.

### Step 11

\* \* READING TAPE

The computer will read in the cancelled checks data. The two asterisks should appear on the screen and flash. Proceed to Step 12.

### Step 12

ANY MORE CANCELLED CHECK DATA (1=YES,2=NO)?

If the tape you are reading-in has more data (data added on), or you have another tape with cancelled check data for this month, type 1. The computer will type:

READY "CANCELLED CHECKS TAPE" (PLAY), THEN PRESS ENTER?

You should get the next set of data ready, then press ENTER and go back to Step 11. If all of your cancelled check data has been entered, type 2 and go to Step 13. For this exercise, load the "Cancelled Checks" tape and type 1.

### Step 13

YOUR EXPENSES = \$247.15  
YOUR INCOME = \$575  
INCOME EXCEEDS EXPENSES BY \$327.85

WANT TO SEE ANY PARTICULAR EXPENSE (1=YES,2=NO)?

The computer displays total income and expenses for the month. The computer will display the difference, either income over expenses, or expenses over income. If you want to see the sum total of an expense account, type 1 and go to Step 14. If you're not interested, type 2 and proceed to Step 17. Again, type 1 and go to Step 14.

### Step 14

TYPE THE EXPENSE CODE NUMBER?

Enter a 0 through 31 for the expense code you wish to look at and proceed to Step 15. Type 1 to look at the telephone expense account.

### Step 15

EXPENSES FOR CODE 1 = \$36.65?

The computer will type the value of any expense account you asked for. The values of the expense accounts that you are not using will be zero. Proceed to Step 16.

### Step 16

ANY MORE EXPENSE CODES YOU WISH TO LOOK AT (1=YES, 2=NO)?

If you have more expense accounts to look at, type 1 and go back to Step 14. If you are done, type 2 and go to Step 17. Go to Step 17 for this exercise.

### Step 17

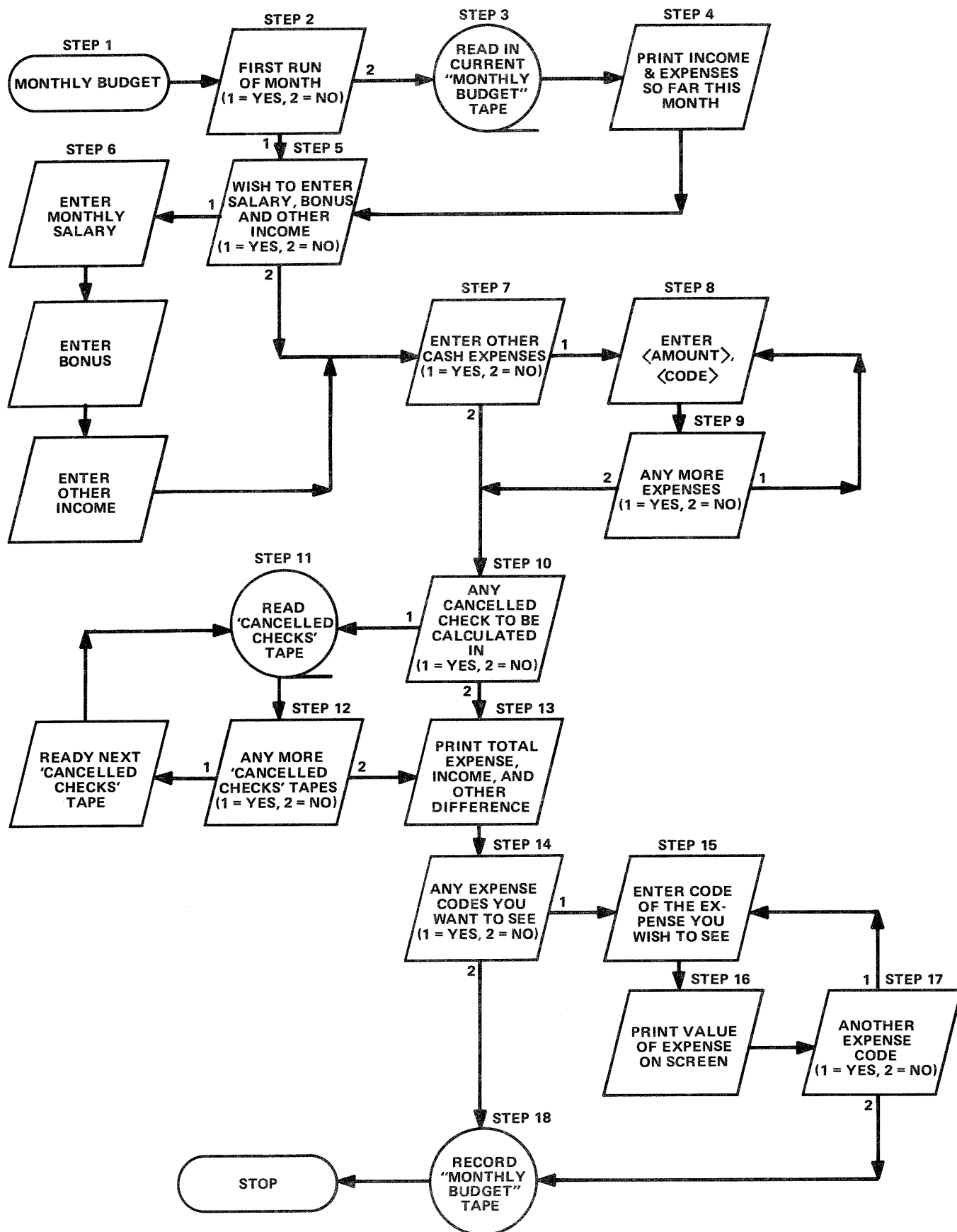
LOAD A 'MONTHLY BUDGET TAPE' (RECORD), THEN PRESS ENTER?

Put the "Monthly Budget" tape for this month into the recorder and press ENTER. The computer will display WRITING TAPE while it is recording. Once the data have been written, the program will display the END OF SESSION message.

### BACKUP

After the program has stopped and before you type NEW or CLOAD to do something else, you can type GOTO 5000 and you will be returned to Step 11, so that you can make a secondary (backup) tape of the monthly budget data.

### III. MONTHLY BUDGET.



## IV BUDGET SUMMARY PROGRAM

The BUDGET SUMMARY PROGRAM reads-in one or more "Monthly Budget" tapes for one month. You will receive a report for that month. Reading in "Monthly Budget" tapes for April, May, and June would produce a report for the second quarter of the year. Entering twelve tapes (one for each month of the year) creates an income/expense report for the entire year. The example shown represents the Budget Summary report for the month of January, which was used in previous examples.

### Step 1

THIS IS YOUR BUDGET SUMMARY PROGRAM.  
IT SUMMARIZES YOUR EXPENSES AND INCOME TO DATE.  
YOU MAY RUN IT ANNUALLY, QUARTERLY OR ANYTIME YOU WISH.  
SIMPLY READ IN THE MONTHLY BUDGET TAPES FOR ALL THE  
MONTHS OR PARTS OF MONTHS THAT YOU WANT A SUMMARY OF.

LOAD 1ST 'MONTHLY BUDGET TAPE' (PLAY), THEN PRESS ENTER?

You must feed in at least one "Monthly Budget" tape at this point. If more than one tape is to be read-in, they may be placed in any order. Load the first tape you wish to enter (PLAY), and press ENTER. Proceed to Step 2.

### Step 2

\* \* READING TAPE

The program reads in the "Monthly Budget" tape you have loaded. The two asterisks should appear on the screen and flash. If the asterisks do not appear, press RESET, rewind your tape, enter RUN, and start over again. If all else fails, use a backup tape that you should have made earlier. Proceed to Step 3.

### Step 3

INCOME FOR THE MONTH = \$575  
EXPENSE FOR THE MONTH = \$247.15

DO YOU HAVE MORE "MONTHLY BUDGET TAPES" (PLAY) TO ENTER?  
(1=YES,2=NO)?

Here, the income and total expenses for the tape just read-in will be displayed. Your numbers will reflect your own income and expenses for the month. If you have more tapes to enter, type 1 and the computer will display:

LOAD NEXT MONTHLY BUDGET TAPE (PLAY), AND  
THEN PRESS ENTER?

By pressing ENTER, after loading your next tape, you will be returned to Step 2. If you have entered all the tapes that you want, type 2 and proceed to Step 4. The example only has one "Monthly Budget" tape, so type 2 and go to Step 4.

### Step 4

INCOME TO DATE = \$575  
EXPENSES TO DATE = \$247.15  
INCOME EXCEEDS EXPENSES BY \$327.85

TO DISPLAY A LIST OF YOUR TOTAL EXPENSES  
FOR ALL CODES, PRESS ENTER?

The sum of income and expenses for all of the tapes that have been fed in are displayed. The difference between income and expenses is typed. If expenses exceed income, the computer would display:

EXPENSES EXCEED INCOME BY \$253.64 (the value being the difference again)

The computer is now waiting for you to press ENTER. Press it and proceed to Step 5.

### Step 5

The computer clears the screen and then displays a list of all expenses according to expense codes, as follows:

CODE	AMOUNT	CODE	AMOUNT	CODE	AMOUNT
0	\$ 140	11	\$ 0	22	\$ 0
1	\$ 36.65	12	\$ 0	23	\$ 0
2	\$ 20.3	13	\$ 0	24	\$ 0
3	\$ 7.95	14	\$ 0	25	\$ 0
4	\$ 15.25	15	\$ 0	26	\$ 0
5	\$ 0	16	\$ 0	27	\$ 0
6	\$ 0	17	\$ 0	28	\$ 0
7	\$ 0	18	\$ 0	29	\$ 0
8	\$ 0	19	\$ 0	30	\$ 0
9	\$ 0	20	\$ 0	31	\$ 0
10	\$ 0	21	\$ 0		

TO CLEAR SCREEN AND END THIS RUN, PRESS ENTER?

This is what your expense report looks like. Press ENTER and you will receive the END OF SESSION message and a READY.

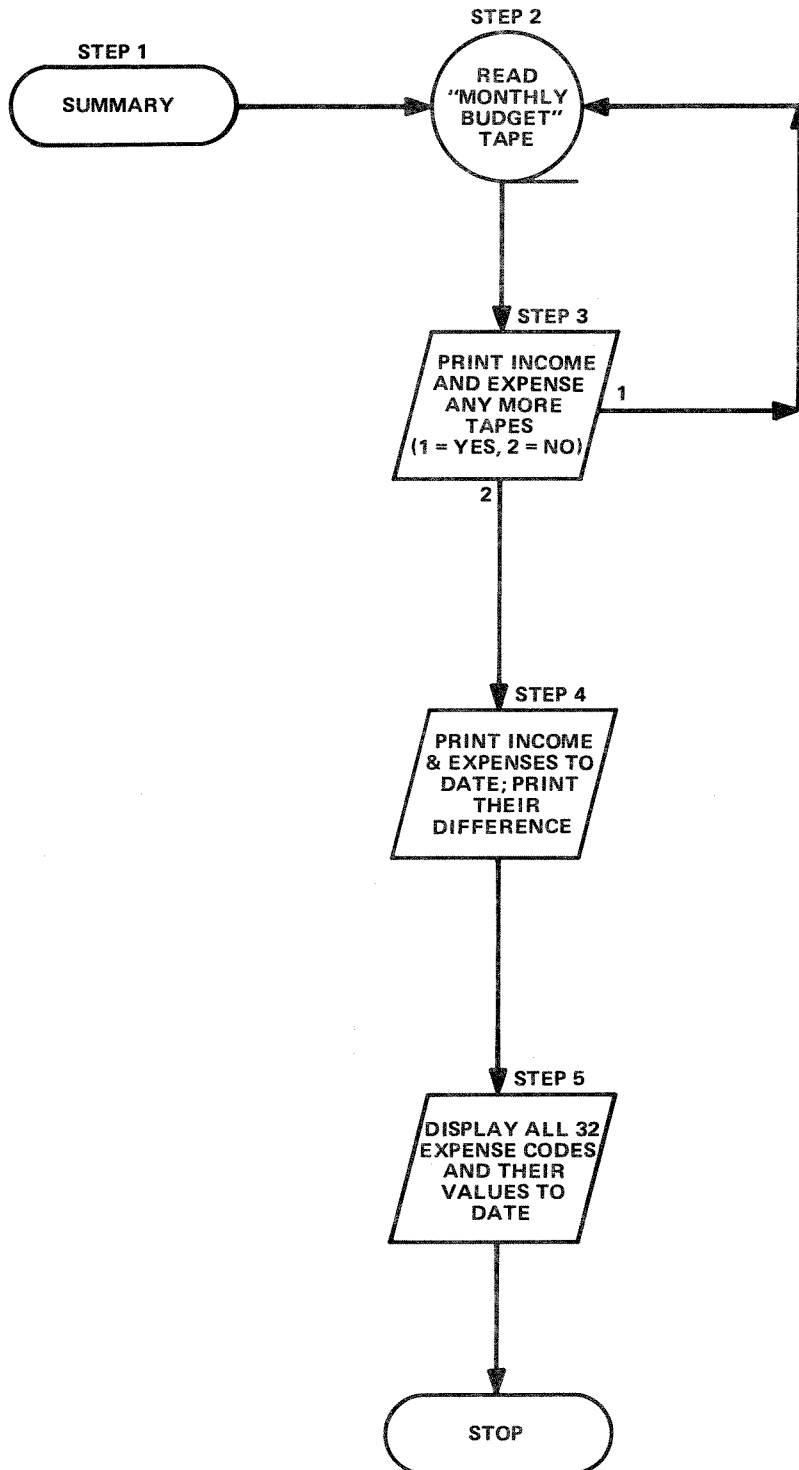
### JUGGLING DATA

The PERSONAL FINANCE PROGRAM is not as elegant as it could be. It was felt that the programs should be short and simple so as much room as possible could be saved for data. With a 4K memory, your TRS-80 can hold a little over 100 entries. An entry being either an outstanding check, a cancelled check or a deposit. This is ample for most people.

If you find yourself using a greater number of entries, it will probably become necessary to purchase a few high quality, 60 minute cassette tapes. The cassettes provided in your PERSONAL FINANCE PACKAGE cannot hold huge mounts of data. In extreme cases, you may even have to run your PERSONAL FINANCE programs on a weekly basis to hold all of the data. These are very rare cases.

Practice by doing the exercises in the examples provided. Experiment with your checks from last year. Carefully choose your expense accounts to fit your needs and the Radio Shack TRS-80 will be a powerful ally.

#### IV. BUDGET SUMMARY.



PERSONAL FINANCE  
CODE LIST

CODE	TYPE OF EXPENSE
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	





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**NOTE:** Good data processing procedure dictates that the user test the program, run and test sample sets of data, and run the system in parallel with the system previously in use for a period of time adequate to insure that results of operation of the computer or program are satisfactory.

Refer to User's Manual for warranties. Failure to adhere to procedures set forth in User's Manual may result in the loss of warranties.

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BILSTON ROAD  
WEDNESBURY, STAFFS WS10 7JN




DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


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DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

MONTHLY BUDGET

TRS  
80

TRS  
80


RADIO SHACK  A DIVISION OF TANDY CORPORATION

DATA TAPE: MONTH OF \_\_\_\_\_

CANCELLED CHECKS

TRS  
80

TRS  
80

RADIO SHACK  A DIVISION OF TANDY CORPORATION