COMPUTER OLYMPICS

STEPHEN MANES AND PAUL SOMERSON

For the Commodore 64, VIC 20; Apple II, II Plus, IIe; IBM PC, PCjr; Atari 400, 800, XL Series; Radio Shack Color Computer; and TI 99/4A.

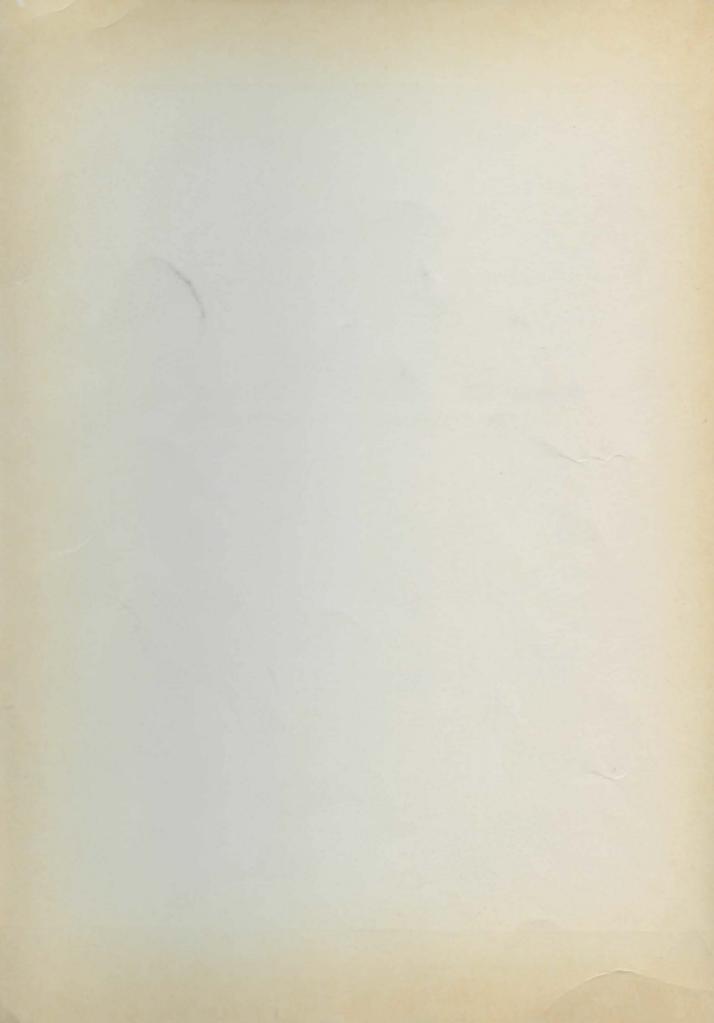
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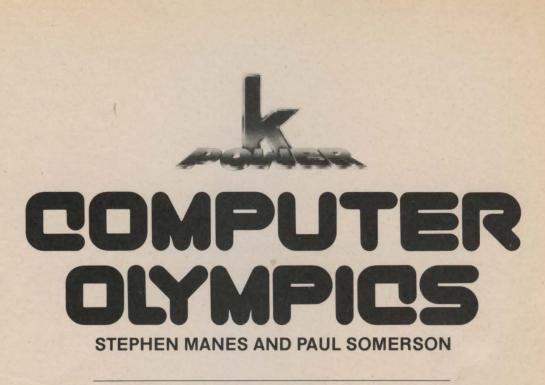
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A HARD/SOFT PRESS BOOK



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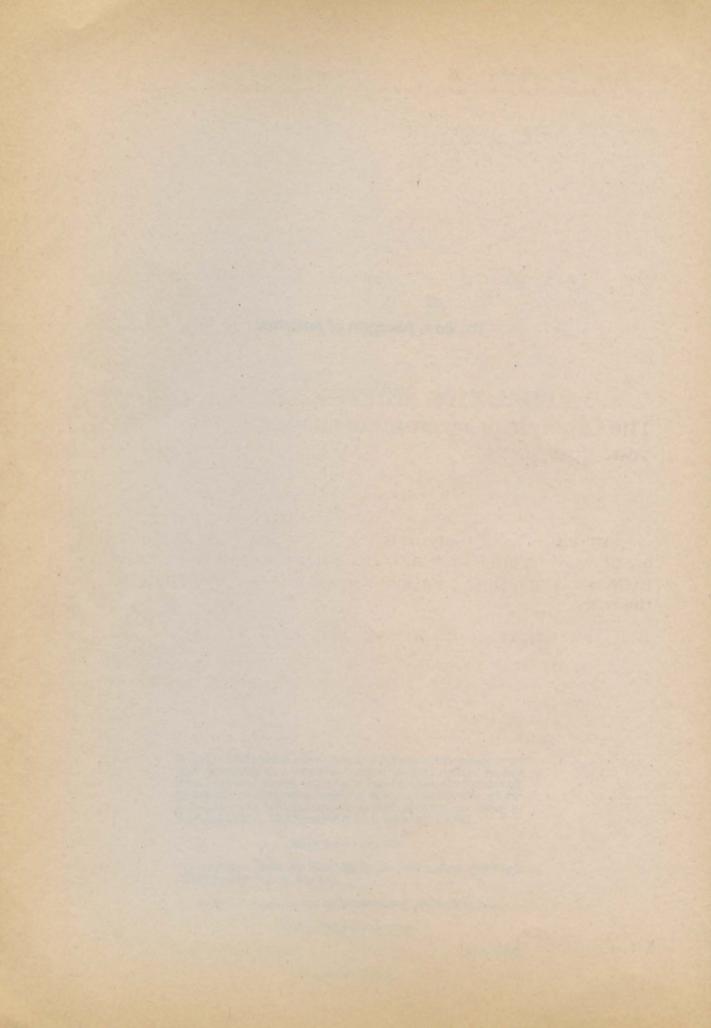
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To Jean, paragon of patience



Welcome, Olympian!

Would you like to win an Olympic gold medal?

Have you ever dreamed of running the marathon or entering the decathlon?

Do you have what it takes to be a world-famous basketball hero?

Can you light the Olympic torch?

With this book and your home computer you'll be able to do all these things — and a whole lot more!

Just be sure to read our GOLD MEDAL TIPS AND TRICKS before you begin!

GOLD MEDAL TIPS AND TRICKS: The Olympic programmers answer your questions

You may be tempted to skip this section and go right on to the programs. You know what we say to that? **DON'T!!!!**

Running BASIC programs is fun. So is typing them in. But there are times when programming can make *you* throw in the towel. In this section, we'll give you lots of tips to help you keep going for the gold.

Will these programs run on my computer?

If you have an IBM Personal Computer or IBM PCjr, the answer is YES! All you have to do is type in the Program Listing. You shouldn't need to make any changes at all.

If you have any of the following computers, the answer is still YES!

Apple II Apple II Plus Apple IIe Atari 400, 800 or XL Series Coleco ADAM Commodore 64 or VIC-20 Radio Shack TRS-80 Color Computer Texas Instruments 99/4A With these computers, you'll usually have to change the Program Listing slightly. Most of the time only a line or two will be different.

Just be sure to read the "If You Have..." section that appears after every Program Listing. It always tells you *exactly* what changes you'll need to make for your computer. (The ADAM needs special changes. Keep reading to learn how to make them.)

It's a good idea to read the "If You Have . . ," information *before* you start typing in your program. If this is your own copy of *Computer Olympics*, you may want to use a pen or pencil to mark the Program Listing with the changes you'll need.

There's more information about each of these computers at the end of this section. Be sure to read it before starting out!

If you have any other computer, the answer is still YES! But you may have to experiment until you find the exact changes your machine needs to run each program. That should be simple. We've tried hard to use only the parts of BASIC that are available on most machines.

Will my program run as soon as I type it in?

If a program runs as soon as you type it in, you're an absolutely amazing typist — and a very lucky one! Everybody makes little typing mistakes even us experts! But in a computer program, little mistakes can cause BIG trouble.

If a program doesn't seem to run right, or if you get an error message something like "Syntax Error" or "SN?" or "You Dummy!" — you'll have to go hunting for your mistakes. Programmers call them bugs. Remember, you put them there, and your program won't run right until you squish out every last one! The official word for that is "debugging."

How do I get the bugs out of my program?

When you type in a program, you must type each line exactly as it appears in the listing. If you miss even one space or one comma, your program probably won't run the way it should.

First, check your program line by line against the listing in the book. It's a good idea to LIST only a few lines at a time, using commands like LIST 100–150. That way, the whole LIST won't scroll up your screen before you get a chance to read it.

You'll probably slap your head when you discover the idiotic goofs you made. With some computers, you'll have to type the whole line in again to make a correction. With others, you can just type in the changes. Learn which way your computer works: It'll save you lots of typing.

Second, be sure you've made the changes your particular machine needs. *Always* look at the "If You Have . . . " section for your particular computer.

If your program still doesn't run, don't give up! There are plenty of things you may have done wrong. How do we know? Because we do them all the time ourselves! Here are some things to watch out for:

Rotten Leftovers

When you start typing in a program, be sure to type NEW and hit the ENTER (or RETURN) key. If you don't, you may find leftover lines from an old program popping up in your new one. It can be a real mess to get them out!

The Curse of the Missing Line Number

It's easy to skip a line by accident when you're typing a long program. Remember: Every program in this book includes a REM statement on line 10 with the name of the program. The next line in every program is line 100, and the lines count up by tens from there, like this:

10	REM	USH	ELESS	PROGRAM
100	INI	TUS:	X	
110	INF	TUS	Y	
120	PRI	INT	Z	

The only line numbers that won't end in \emptyset will be lines you add from the "If You Have..." section. And the only time the lines will skip — say from 240 to 260 — is when the "If You Have..." section tells you to remove a line for your machine.

One Out of Two

Some things have to come in pairs, or your computer will get terribly upset. What kinds of things? Mainly quotation marks ("") and left and right parentheses (()). Leaving one out is just about guaranteed to get you some sort of error message. That's why it's important to check a statement like

300 PRINT CHR\$(INT(RND(1)*(3+2)/(4+3)))

very carefully. If you're not positive, count the parentheses and quotation marks on your *other* personal computer — your fingers!

A Letter's Not a Number

Your computer is very, very fussy about letters and numbers. Remember, a one (1) is not a small L (l) or a capital i (l), even though they may look

almost the same. And as far as the computer is concerned, a capital letter o (O) is not the same as the number zero (\emptyset) .

In our Program Listings, you'll always find a slash through the number zero (Ø) to keep you from getting confused. But your fingers may do something your brain never had in mind!

Here are some program lines that will cause your computer to scratch its head and give up. We stole them from our own wastebaskets. Each line contains just one error. Can you spot the goofs?

> 100 GOTØ 240 200 lF I=2 THEN 500 300 N=J 400 R=22I 500 P=416

A Space Isn't Nothing!

Especially in graphics programs — programs that draw pictures — spaces are terribly important. If the Program Listing shows a space, be sure you don't leave it out. For example, in

100 F\$="MURBLEHEAD"
110 PRINT F\$;" IS A JERK!"

if you leave out the space between the first quotation mark and the word IS in line 110, you'll get this:

MURBLEHEADIS A JERK!

You can probably guess what prints out if you leave the space in. But don't add spaces where there are none in the listing. That may cause problems that are even worse!

Semicolons and Commas

Semicolons and commas have special jobs in BASIC programs. Semicolons let you PRINT more than one thing on each line. In PRINT statements, commas do the same thing a little differently, but the programs in this book hardly ever use them that way.

In DATA statements, commas separate each item of data. If you leave one out or put an extra one in, it will confuse your computer. If you get a message like "Out of Data" when everything in your program looks right, chances are you left out a comma — or perhaps a whole DATA statement.

Mysterious Letters

Sometimes the letters and names used for variables in a program can get confusing. It's easy to type an E when you meant to type a D. They're right next to each other on the keyboard. So watch out! One mistake like that can keep an almost perfect program from running at all.

A Real Live Bug?

If you've done everything you can think of, and you're positive we've missed a bug in our own program, please write and describe the problem. We'll try to come up with a solution!

Why did you include the Sample Runs?

The Sample Runs are here for two reasons. First, they give you an idea of what the programs will do. That way, you can decide whether or not you want to type in a particular program.

The Sample Runs are also here to help you make sure your program is running the way it should. But remember: There are some things you can do on a computer that you can't do on a printed page. Many of these programs create pictures that move across your screen. There's no way we can show that here.

And some of the programs do different things every time you run them. So when you run your program, it may not do *exactly* what the Sample Run does — but it should come close.

How come the program listings are in ALL CAPITALS?

If you've already peeked at the Program Listings, you'll notice they're entirely in capital letters. That's because some computers only have capitals. If your machine is one of them, you won't have any problems with any of these programs.

But if you've got a computer that can give you both capitals *and* lowercase letters, you may run into some problems when you RUN these programs. Why? Let's say we ask a question that has a yes or no answer. You type in "yes" — all lowercase. But the program will be looking for "YES" all capitals.

The solution? It's easy. Just press the key called CAPS LOCK or ALPHA LOCK or just plain LOCK on your computer. Do it when you type in your programs and when you run them. That way, all the letters will appear in CAPITALS!

What's an ENTER key? My computer doesn't have one!

One of the strangest and most important keys on the keyboard is the one you use to INPUT data. The strange part is that computer companies can't agree on what to call it. Some call it the ENTER key. Some call it the RETURN key. And some put a weird symbol on it and no lettering at all!

It's always in roughly the same place — to the right of the letters on the keyboard. Our Program Listings always call it the ENTER key. If you've got a RETURN key, you'll need to type that word into your PRINT statements wherever we've used the word ENTER.

That brings up another rule we've used in this book. Whenever a program asks you to answer a question or make a choice, you have to hit the ENTER (or RETURN) key before anything will happen. That means you can use the BACKSPACE key to correct any mistakes before you ENTER your answer into the computer.

If you're a good programmer, you'll also notice that we've tried hard to keep you from entering an answer the computer isn't expecting. If we ask for a number between 1 and 4, you won't be able to enter $5 - \text{ or } \emptyset$!

My machine doesn't have a BREAK key. Or does it?

The BREAK key is something else that's different on every machine. Sometimes it's just a key marked BREAK. Sometimes it's really two keys — CTRL and BREAK or some other combination that you have to hold down at the same time. We'll tell you exactly which combination works for your computer in a second. Be sure you know how to use it!

Why? Well, some of our programs will run forever unless you BREAK out of them — or turn off your machine! Sometimes a typing error will make the same thing happen when it's not supposed to. And when you're debugging a program, you may only want to run a small part of it and then quit. It's the same with computers as it is with cars — knowing how to get your machine to stop when you want it to is a really lucky BREAK.

How can I keep my programs from disappearing when I turn off the computer?

Many of the programs in this book will take you only a few minutes to type in. The long ones may take a few hours. And once you turn your computer off, all your hard work will disappear.

But if you have a cassette recorder or disk drive, you can SAVE your programs and RUN them again and again. SAVEs are different on almost every machine. The instruction manual that came with your computer or disk drive should tell you how to SAVE your work — and LOAD it back into your computer again.

You don't have to wait until a program is working to SAVE it. Especially with longer programs, you should SAVE now and then as you type the program in. That way, you'll be able to LOAD everything you've done right back into your machine if your dog or cat or little sister accidentally pulls the plug — or if you've had enough of programming for one day and decide to go to the movies. If you've got a friend with the same kind of computer as yours, you can each type in different programs and SAVE them on disk or cassette. Then you can swap your disks or cassettes. It's another great way to save yourself some typing!

I've got a printer. What about me?

You're really in luck! With a little thought, you'll be able to print out your very own personalized program runs. Do computer-makers agree on the way to get information to your printer? Not any more than they agree on the name of the ENTER (RETURN?) key!

With some machines, it's easy to print out your program runs. All you do is type something like PR#1, and everything you see on the screen will magically turn up on your printer, too!

With other machines it's a little trickier. You may have to change PRINT statements to LPRINT to get your printer to notice them. The best advice we can give is to check the manuals for your computer.

But remember this: If you try to run a program and absolutely *nothing* happens, it's a good bet that you tried to send something to your printer — and your printer wasn't turned on! On most machines, that's an excellent way to stop a program cold!

I can think of a better way to do some of the things you did. Why did you do them your way?

There are usually lots of different ways to get your computer to do the same thing. If you run this program:

10 PRINT "JESKLER LOVES PRUNES" 20 PRINT "JESKLER LOVES PRUNES"

you'll get exactly the same result as:

10 FOR A=1 TO 2 20 PRINT "JESKLER LOVES PRUNES" 30 NEXT A

We can think of at least ten other ways to get the same two lines printed out on the screen.

Which way is best? It all depends. If we've done something that looks silly to you, it may be because we've tried to get it to work with machines that can't do some things yours can.

We've tried to write our programs so they'll run on as many machines as possible. If we've left out your favorite BASIC command or done something in a roundabout way, we apologize. But if we've done something *really* stupid, let us know about it!

Will I mess up my computer if I make changes in your programs?

No! In fact, we *hope* you'll try to improve on these programs — and use them as a starting point for your own. But it's probably a good idea to get them running in their original versions first.

How do I run a program once I've typed it in?

Just type RUN and hit the ENTER or RETURN key!

What else do I have to read in this chapter?

Just the section on your own computer. After that — happy programming!

What if I have an IBM Personal Computer or PCjr?

You're in luck! These programs will run on your machine without any changes at all!

You should be sure to start off in BASIC by typing the command KEY OFF (and hitting the ENTER key). If you have a color monitor or TV set, you should next type WIDTH 40 (and the ENTER key again). You can choose the colors that you see on the screen by giving COLOR commands before you begin — or by writing them into the beginning of the program. The manual that comes with your computer will give you the details.

Remember to set the CAPS LOCK key so that you only get CAPITAL letters. To BREAK out of a program on a PC, hold down the CTRL key and press the BREAK key (it's also called SCROLL LOCK). To BREAK out on a PCjr, press the Fn key and then the letter B (for break). The PC's ENTER key has no lettering on it — just a funny arrow with a bent tail.

What if I have an Apple II Computer?

Many of these programs will run on your machine without any changes at all. In some programs, you'll have to remove one RANDOMIZE statement and change the way the program clears the screen. The "If You Have..." section after each Program Listing will tell you exactly what to do.

Be sure you run these programs in Applesoft BASIC — Apple's Integer BASIC just won't work. When you need to BREAK out of a program, hold down the CONTROL key and press the letter C. Your machine has a RETURN key instead of an ENTER key. If you have an Apple IIe, you should set the CAPS LOCK key so that you only get CAPITAL letters.

What if I have an Atari Computer?

Atari BASIC is very unusual. It doesn't allow string arrays like N\$(3). It makes you DIMension all your string variables before you can use them. It requires a special way of entering string commands. It lacks features such as the TAB function.

Most of these programs will need simple changes and additions. The "If You Have . . . " section after each Program Listing will tell you exactly what to do.

Your machine has a BREAK key to let you break out of a program. It has a RETURN key instead of an ENTER key. And you can change the colors that appear on your screen—check your manual for the details.

What if I have a Coleco ADAM?

Many of these programs will run on your machine without any changes at all. In some programs, you'll have to remove one RANDOMIZE statement and change the way the program clears the screen. Because the version of BASIC in ADAM is almost exactly like the one for the Apple, you'll usually be able to follow the directions for Apple computers in the "If You Have . . . " section after each Program Listing.

But since the ADAM does not display as many characters across the screen as Apples do, you will have to make changes to some programs—especially the ones that make pictures. The following steps will help you get the programs running on your ADAM:

- 1. Enter the program, making the changes needed for the Apple Computer.
- 2. Now look at the changes for the TRS-80 Color Computer. *Don't* change any of the lines you already changed for the Apple. *Don't* change any lines that include the words CLS, LINE INPUT, RND or SOUND. Make all other changes needed for the Color Computer.

When you need to BREAK out of a program, hold down the CONTROL key and press the letter C. Your machine has a RETURN key instead of an ENTER key. And you should set the LOCK key so that you only get CAPITAL letters.

What if I have a Commodore 64 or VIC-20?

Many of these programs will run on your machine without any changes at all. In some programs, you'll have to remove a RANDOMIZE statement. In some, you'll also need to change one number in RND statements and change the way the program clears the screen. The "If You Have . . . " section after each Program Listing will tell you exactly what to do.

Your machine has a RETURN key instead of an ENTER key. To BREAK out of a program, press the RUN/STOP key. You may want to change the colors that appear on your screen. Your computer's manual will tell you exactly how to do it.

Since the VIC prints fewer characters (letters and numbers) on the screen than most other home computers, you may want to adjust the PRINT statements so that words don't "wrap" around the ends of lines. The easiest way is to divide one PRINT statement into two. If you do this, be sure the first PRINT statement keeps its original line number.

What if I have a Texas Instruments 99/4A Computer?

TI BASIC is unusual in many ways. It uses special characters instead of AND and OR. It uses the term SEG\$ instead of the more common MID\$. It's very fussy about what you can put after the word THEN.

Most of these programs will need simple changes and additions. The "If You Have..." section after each Program Listing will tell you exactly what to do.

Your machine has an ENTER key. To BREAK out of a program, hold down the FCTN key and press the number 4 key. You should set the ALPHA LOCK key so that you only get CAPITAL letters. You may want to change the colors that appear on your screen. Your computer's manual will tell you how to do it.

What if I have a TRS-80 Color Computer?

Many of these programs will run on your machine without any changes at all. In some, you'll have to take out one RANDOMIZE statement and change the way RND works. The "If You Have . . . " section after each Program Listing will tell you exactly what to do.

Your machine has an ENTER key and a BREAK key. You may want to change the colors that appear on your screen. Your computer's manual will tell you how to do it.

NOW, ON TO THE FUN!

Carry the Torch

The Olympic torch will go halfway around the world in its journey from Greece to Los Angeles. Now you can carry that torch right to your computer screen!

Sample Run

YOU'VE CARRIED THE OLYMPIC FLAME DOWN THE FINAL STRETCH TO THE STADIUM. NOW YOU'RE RUNNING UP THE LAST FEW STEPS TO LIGHT THE OLYMPIC FLAME. LET THE OLYMPICS BEGIN! HIT THE ENTER KEY TO LIGHT THE FLAME?



Program Listing

10 F	EM CAR	RRY THE TORCH
100	PRINT	
110	PRINT	"YOU'VE CARRIED THE OLYMPIC FLAME"
120	PRINT	"DOWN THE FINAL STRETCH TO THE"
		"STADIUM. NOW YOU'RE RUNNING UP"
140	PRINT	"THE LAST FEW STEPS TO LIGHT THE"
150	PRINT	"OLYMPIC FLAME. LET THE OLYMPICS"

```
160 PRINT "BEGIN! HIT THE ENTER KEY TO LIGHT"
170 PRINT "THE FLAME";
180 INPUT X$
190 PRINT
200 PRINT TAB(19);"("
210 PRINT TAB(18);") ("
220 PRINT TAB(17);") ("
230 PRINT TAB(16);") ( ("
240 PRINT TAB(15);") )) ("
250 PRINT TAB(14);") () ("
260 PRINT TAB(14);") ) (("
270 PRINT TAB(13);") ( ) (
                                    ("
280 FOR A=1 TO 3
290 PRINT TAB(11);
300 FOR B=1 TO 18
310 PRINT "M";
320 NEXT B
330 NEXT A
340 FOR C=1 TO 10
350 PRINT TAB(14+C/2);
360 FOR D=11-C TO 1 STEP -2
370 PRINT "MM";
380 NEXT D
390 NEXT C
```

If You Have . . .

APPLE II

Add: 325 PRINT 385 PRINT

Change: 160 PRINT "BEGIN! HIT THE RETURN KEY TO LIGHT" 350 PRINT TAB(14.5+C/2);

ATARI

Add:	95 I	DIM XŞ	(1)		
	201	GOSUB	401		
	202	PRINT	"("		
	211	GOSUB	401		
	212	PRINT	")	("	
	221	GOSUB	401		
	222	PRINT	")	("	
	231	GOSUB	401		
	232	PRINT	")	(("
	241	GOSUB	401		
	242	PRINT	")))	("
	251	GOSUB	401		
	252	PRINT	")	() (
	261	GOSUB	401		

262 PRINT ")) ((" 271 GOSUB 401 272 PRINT ") () ((" 291 GOSUB 401 321 PRINT 351 GOSUB 401 381 PRINT 391 END 401 FOR F=1 TO R 402 PRINT " "; 403 NEXT F: RETURN Change: 160 PRINT "BEGIN! HIT THE RETURN KEY TO LIGHT" 200 R=18 210 R=17 220 R=16 230 R=15 240 R-14 250 R=13 260 R=13 27Ø R=12 290 R=10 350 R=(13+(C+1)/2)

COMMODORE 64

Add: 325 PRINT 385 PRINT

Change: 160 PRINT "BEGIN! HIT THE RETURN KEY TO LIGHT" 350 PRINT TAB(14+INT(C/2+.6));

COMMODORE VIC-20

Delete: 260

Add:		PRINT	
	385	PRINT	
Change:	160	PRINT	"BEGIN! HIT THE RETURN KEY TO LIGHT
-	200	PRINT	TAB(11);"("
	210	PRINT	TAB(10);") ("
			TAB(9);") ("
	230	PRINT	TAB(8);") (("
	240	PRINT	TAB(7);"))) ("
			TAB(6);") () ("
	270	PRINT	TAB(5);") () (("
	290	PRINT	TAB(3);
			TAB(6+C/2);

TEXAS INSTRUMENTS 99/4A

200	PRINT	TAB(14);"(
210	PRINT	TAB(13);")	('	•	
220	PRINT	TAB(12);")		("	
230	PRINT	TAB(11);")	(("	
240	PRINT	TAB(10);"))) (
250	PRINT	TAB(9);")	()	("
260	PRINT	TAB(9);"))	(("
270	PRINT	TAB(8);")	() (("
290	PRINT	TAB(6);			
350	PRINT	TAB(9+C/2)	;		
	210 220 230 240 250 260 270 290	210 PRINT 220 PRINT 230 PRINT 240 PRINT 250 PRINT 260 PRINT 270 PRINT 290 PRINT	<pre>210 PRINT TAB(13);") 220 PRINT TAB(12);") 230 PRINT TAB(11);") 240 PRINT TAB(11);") 250 PRINT TAB(10);") 250 PRINT TAB(9);") 260 PRINT TAB(9);") 270 PRINT TAB(8);") 290 PRINT TAB(6);</pre>	220 PRINT TAB(12);") 230 PRINT TAB(11);") (240 PRINT TAB(10);")) 250 PRINT TAB(9);") (260 PRINT TAB(9);")) 270 PRINT TAB(8);") (210 PRINT TAB(13);") (" 220 PRINT TAB(12);") (" 230 PRINT TAB(11);") ((" 240 PRINT TAB(11);") ((" 240 PRINT TAB(10);"))) (250 PRINT TAB(9);") () 260 PRINT TAB(9);")) (270 PRINT TAB(8);") () (290 PRINT TAB(6);

TRS-80 COLOR COMPUTER

Add:	325	PRINT
	385	PRINT

Change:	200	PRINT TAB(14);"("	
11111	210	PRINT TAB(13);") ("	
	220	PRINT TAB(12);") ("	
	230	PRINT TAB(11);") (("	
	240	PRINT TAB(10);"))) ("	
		PRINT TAB(9);") () ("	
		PRINT TAB(9);")) (("	
		PRINT TAB(8);") () (("	
		PRINT TAB(6);	
		FOR I=1 TO 5	
		PRINT TAB $(12+C/2)$;	
	360	FOR D=6-C TO 1 STEP -2	

Olympic Years

The Olympic Games are held every four years. But can you tell whether a particular year in the future — say, the year you'll turn 18 — will have Olympic Games? This program can. And since Olympic years are also United States presidential election years and leap years, you'll be able to find out about those, too.

Did you know that the sixth Olympic Games were never held, because of World War I — and that Games XII and XIII were canceled during World War II?

Sample Run

WILL A YEAR IN THE FUTURE BE AN OLYMPIC YEAR?

TO FIND OUT, JUST ENTER THE YEAR YOU WANT TO CHECK? 1987

SORRY: NO OLYMPICS IN 1987

RUN

WILL A YEAR IN THE FUTURE BE AN OLYMPIC YEAR?

TO FIND OUT, JUST ENTER THE YEAR YOU WANT TO CHECK? 2004

THE YEAR 2004 WILL HAVE OLYMPICS NUMBER 28.

Program Listing

10 REM OLYMPIC YEARS 100 PRINT 110 PRINT "WILL A YEAR IN THE FUTURE" 120 PRINT "BE AN OLYMPIC YEAR?" 130 PRINT 140 PRINT "TO FIND OUT, JUST ENTER THE" 150 PRINT "TO FIND OUT, JUST ENTER THE" 150 PRINT "YEAR YOU WANT TO CHECK"; 160 INPUT YEAR 170 PRINT 180 IF YEAR>1983 THEN 210 190 PRINT "I SAID A YEAR IN THE FUTURE!" 200 GOTO 160 210 IF INT(YEAR/4)=YEAR/4 THEN 240

```
220 PRINT "SORRY: NO OLYMPICS IN ";YEAR
230 END
240 OD=23+(YEAR-1984)/4
250 PRINT "THE YEAR ";YEAR
260 PRINT "WILL HAVE OLYMPICS NUMBER ";OD; "."
```

If You Have . .

APPLE II No Changes Required

ATARI No Changes Required

COMMODORE 64 No Changes Required

COMMODORE VIC-20 Change: 150 PRINT "YEAR YOU WANT TO CHECK"

TEXAS INSTRUMENTS 99/4A

No Changes Required

TRS-80 COLOR COMPUTER

No Changes Required

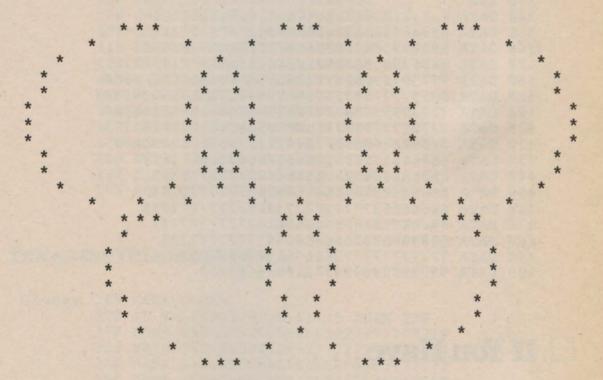
Olympic Rings

The Games are about to begin, and this program will put the Olympic symbol right in the middle of your screen. You'll have to supply the Olympic theme music yourself!

Sample Run

THE OLYMPICS ARE ABOUT TO START!

HIT THE ENTER KEY TO SEE THE RINGS ON YOUR SCOREBOARD?



Program Listing

10 REM OLYMPIC RINGS 100 PRINT 110 PRINT "THE OLYMPICS ARE ABOUT TO START!" 120 PRINT 130 PRINT "HIT THE ENTER KEY TO SEE THE RINGS" 140 PRINT "ON YOUR SCOREBOARD"; 150 INPUT X\$

160	
170	
180	FOR Y=1 TO 16
190	READ T(Y)
200	NEXT Y
210	
220	
230	
240	
250	
260	PRINT "*";
270	GOTO 290
280	PRINT CHR\$(32);
290	NEXT B
300	PRINT
310	NEXT Z
320	NEXT A
330	END
340	DATA 1,1,1,2,3,1,1,1,1,1,1,3,2,1,1,1
350	
360	DATA 999999388888466657777719993999993
370	DATA 66662888888888888666666666666666666666
380	DATA 77739999999970828888888865666666666
390	DATA 8857777777774999399999288819999999992
400	DATA 77739999999970828888888665666666666
410	DATA 777277777777132888888884217777777775
420	DATA 8888Ø88888881772747777756266388888883
430	DATA 666666177277366657738828881772774
440	DATA 888888888432666666665427777777315
450	DATA 888888888266666666666666
460	DATA 666666637777777738882777777775
470	DATA 88888888826666666666666666666666666666
480	
490	
500	

☐ If You Have . . .

APPLE II

Change: 130 PRINT "HIT THE RETURN KEY TO SEE THE RINGS" 160 HOME

ATARI

Add: 95 DIM X\$(1),A\$(40) 191 T(Y)=R

Change: 130 PRINT "HIT THE RETURN KEY TO SEE THE RINGS" 160 PRINT CHR\$(125) 190 READ R 250 IF VAL(A\$(B,B))>5 THEN 280

COMMODORE 64

Change: 130 PRINT "HIT THE RETURN KEY TO SEE THE RINGS" 160 PRINT CHR\$(147)

COMMODORE VIC-20

Change:	130	PRINT "HIT THE RETURN KEY TO SEE THE RINGS"
Ŭ	160	PRINT CHR\$(147)
	340	DATA 1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1
	350	DATA 88883388833888338888
	360	DATA 888388383838383838888
	370	DATA 88388883888838888388
	38Ø	DATA 838888383838388888888888888888888888
	390	DATA 8388883838383838888838
	400	DATA 8388883838383838888838
	410	DATA 8838888388883888388
	420	DATA 888388333883338838888
	430	DATA 88883388333883338888
	440	DATA 888838888388888888888888888888888888
	450	DATA 88838888383888838888
	460	DATA 888388883838888388888
	470	DATA 888388883838888388888
	480	DATA 888838888388888888888888888888888888
	490	DATA 888883883838388888888888888888888888
	500	DATA 888888338883388888888888888888888888

TEXAS INSTRUMENTS 99/4A

Change:	160	CALL	CLEAR
change.	250		
			AL(SEG\$(A\$,B,1))>5 THEN 280
	350	DATA	88888432666666665427777777315
	360	DATA	99938888884666577777199939999
	370	DATA	62888888888881666666666663777777
	38Ø	DATA	3999999997Ø82888888846566666
	39Ø	DATA	777777774999399999288819999
	400	DATA	3999999997082888888846566666
	410	DATA	2777777777132888888842177777
	420	DATA	8088888817727477777562663888
	430	DATA	6661772773666577388288817727
	440	DATA	88888432666666665427777777315
	450	DATA	888882666666666666666888888888888888888
	460	DATA	6666377777777738882777777777777777777777
	470	DATA	88888266666666666637777777771
	480	DATA	888888266666666617777777777
	49Ø	DATA	777777726666618880999991
	500	DATA	99999999993216666666213

TRS-80 COLOR COMPUTER

Delete:	400	,420,450
Change:	160	CLS
change.	180	FOR Y=1 TO 13
	210	FOR $A=1$ TO 13
	330	GOTO 330
	340	DATA 1,1,1,1,2,1,1,1,2,1,1,1,1
	350	DATA 888884326666666542777777315
	360	DATA 9993888888466657777719993999993
	370	DATA 62888888888886666666666663777777777
	380	DATA 3999999997082888888846566666666
	390	DATA 777777774999399999288819999999
	410	DATA 277777777132888888842177777777
	430	DATA 666177277366657738828881772774
	440	DATA 888884326666666542777777315
	460	DATA 666637777777738882777777775
	470	DATA 888882666666666666668
	480	DATA 8888882666666666617777777773
	490	DATA 777777726666618880999991
	500	DATA 99999999993216666666213

Olympic Press Secretary

There's lots of work to be done behind the scenes at the Olympics. As the press secretary, it's your job to invite the international heads of state. If you can find them, you'll get a promotion; if you can't, you may soon be out of work!

Sample Run

YOU'RE THE OLYMPIC PRESS SECRETARY. YOU'RE IN CHARGE OF INVITING WORLD LEADERS TO LOS ANGELES.

DO YOU KNOW WHERE TO FIND THEM?

HOW MANY INVITATIONS STILL NEED TO BE SENT (3-20)? 4 MATCH THE CAPITAL WITH THE COUNTRY TO BE AN OLYMPIC HERO.

1 BELGRADE 2 BERN 3 BONN **4 BUCHAREST** 5 BUDAPEST 6 DRESDEN 7 HAVANA 8 HELSINKI 9 LONDON 10 MOSCOW 11 PARIS 12 PRAGUE 13 ROME 14 SEOUL 15 SOFIA 16 STOCKHOLM 17 TOKYO 18 WARSAW 19 WASHINGTON D.C. 20 WELLINGTON

WHICH CITY IS THE CAPITAL OF NEW ZEALAND? ENTER THE NUMBER? 20 EXCELLENT! --BUT STILL 3 MORE TO SEND!

[There's more — when you get to the end of the program, you'll see something like this:]

WHICH CITY IS THE CAPITAL OF CZECHOSLOVAKIA? ENTER THE NUMBER? 12 EXCELLENT!

YOU'RE AN OLYMPIC HERO! YOU ARE PROMOTED TO VICE-PRESIDENT OF THE OLYMPICS!

Program Listing

```
10 REM OLYMPIC PRESS SECRETARY
100 DIM X(20)
110 PRINT
120 PRINT "YOU'RE THE OLYMPIC PRESS SECRETARY."
130 PRINT "YOU'RE IN CHARGE OF INVITING"
140 PRINT "WORLD LEADERS TO LOS ANGELES."
150 PRINT
160 PRINT "DO YOU KNOW WHERE TO FIND THEM?"
170 PRINT
180 PRINT "HOW MANY INVITATIONS STILL "
190 PRINT "NEED TO BE SENT (3-20)";
200 INPUT J
210 IF J<3 OR J>20 THEN 180
220 RANDOMIZE J
230 PRINT "MATCH THE CAPITAL WITH THE COUNTRY"
240 PRINT "TO BE AN OLYMPIC HERO."
250 FOR I=1 TO 40
260 READ C$
270 IF I<21 THEN 300
280 IF I<30 THEN PRINT " ";
290 PRINT I-20;C$
300 NEXT I
310 RESTORE
320 IF F<>0 THEN 370
330 R=1+INT(RND(1)*20)
340 FOR B=1 TO W
350 IF R=X(B) THEN 330
360 NEXT B
370 FOR I=1 TO R
380 READ K$
390 NEXT I
400 RESTORE
410 PRINT "WHICH CITY ";
420 PRINT "IS THE CAPITAL OF ";K$;"?"
430 PRINT "ENTER THE NUMBER";
440 INPUT L
450 IF L<1 OR L>20 THEN 250
```

	IF L=R THEN 560
	PRINT "WRONG!"
480	IF F=1 THEN PRINT "ONE MORE CHANCE:"
490	IF F=2 THEN PRINT "YOU'RE TOO LATE!"
500	IF F=2 THEN PRINT "YOU'RE FIRED!"
	IF F=2 THEN END
520	F=F+1
530	PRINT "PRESS THE ENTER KEY TO TRY AGAIN";
540	INPUT X\$
550	GOTO 250
560	PRINT "EXCELLENT!"
570	F=Ø
580	W=W+1
590	X(W) = R
	IF W=J THEN 630
610	PRINT "BUT STILL "; J-W; " MORE TO SEND!"
	GOTO 250
	PRINT
	PRINT "YOU'RE AN OLYMPIC HERO!"
	PRINT "YOU ARE PROMOTED TO VICE-PRESIDENT"
66Ø	PRINT "OF THE OLYMPICS!"
670	DATA YUGOSLAVIA, SWITZERLAND, WEST GERMANY
680	DATA ROMANIA, HUNGARY, EAST GERMANY, CUBA, FINLAND
690	DATA ENGLAND, U.S.S.R, FRANCE, CZECHOSLOVAKIA, ITALY
700	DATA SOUTH KOREA, BULGARIA, SWEDEN
710	DATA JAPAN, POLAND, UNITED STATES, NEW ZEALAND
720	DATA BELGRADE, BERN, BONN, BUCHAREST, BUDAPEST
73Ø	DATA DRESDEN, HAVANA, HELSINKI, LONDON, MOSCOW
740	DATA PARIS, PRAGUE, ROME, SEOUL, SOFIA
	DATA STOCKHOLM, TOKYO
760	DATA WARSAW, WASHINGTON D.C., WELLINGTON

□ If You Have . . .

APPLE II

Delete: 220

Change: 290 PRINT I-20;" ";C\$ 530 PRINT "PRESS THE RETURN KEY TO TRY AGAIN";

ATARI

Delete: 220

Add: 95 DIM C\$(15),K\$(15)

Change: 290 PRINT I-20;" ";C\$ 330 R=1+INT(RND(0)*20) 530 PRINT "PRESS THE RETURN KEY TO TRY AGAIN";

COMMODORE 64

Delete: 220

Change: 330 R=1+INT(RND(0)*20) 530 PRINT "PRESS THE RETURN KEY TO TRY AGAIN";

COMMODORE VIC-20

Delete: 220

Add:	245	PRINT					
	246	PRINT	" PRESS	RETURN	KEY	TO BEGIN	
	247	INPUT	X\$				
	615	PRINT					
	616	PRINT	" PRESS	RETURN	TO	CONTINUE"	
	617	INPUT	X\$				

Change:	190	PRINT	"NEED	TO BE	SENT	(3-2	2Ø)"
	330	R=1+IN	IT (RND (Ø)*2Ø)		
	430	PRINT	"ENTER	THE	NUMBER	2 ''	
	530	PRINT	"PRESS	RETU	RN TO	TRY	AGAIN"

TEXAS INSTRUMENTS 99/4A

Add:	285	PRINT	" ";	
	485	PRINT	"ONE MORE	CHANCE:"
	495	PRINT	"YOU'RE TO	OO LATE!"
hange:	210	IF (J	<3)+(J>2Ø)	THEN 180

280 IF I>=30 THEN 290 330 R=1+INT(RND*20) 450 IF (L<1)+(L>20) THEN 250 480 IF F<>1 THEN 490 490 IF F<>2 THEN 520 500 PRINT "YOU'RE FIRED!" 510 END

TRS-80 COLOR COMPUTER

Delete: 220

CI

2	46 INPUT	"HIT ENTH X\$ 2=INT(I/2)				map(13).
2	.95 IF 1/	2-INI(1/2)	INEN PR	INI ELSE	PRINI	IAD(13);
3 7	30 R=RND 10 DATA	I-20;C\$; (20) JAPAN,POLA WARSAW,WEI	and the second			

View From the Blimp

How many times have you wanted to pilot the blimp that seems to turn up at every major sports event? Well, now you can! Here's a blimp's-eye view of the Olympic marathon!

?

Sample Run

YOU ARE PILOTING A BLIMP OVER THE STREETS OF LOS ANGELES DURING THE MARATHON. CHEERING CROWDS LINE THE WAY.

HIT	THE	ENTER	KEY	то	SEE	THE	VIEW	
		GO	1		! R/	AH		
		RAH	1	1		GO		
		HOORA			! R/	AH		
		HOORA			!			
	H	HOORAY			HOOI			
		HOORA				AH		
		HOORA RAH	AY I			GO		
	*	RAH				RAH		
		HOORA			. R/			
		nooran	1		RAI			
		GO				•		
		GO			! R/	AH		
		RAH	!		1			
		HOOD	RAY	1	1	G)	
				1	1	RAH		
		HOOR			! 1	RAH		
			1		!			
			1	1	RAI	H		
	T	GO	1	1	G	-		
			! !	1	G	,		
			1		RAH			
		AH !		1 1				
		1	1		AH			
		1		RAI	H			
	RAI	H !	. 1	R	AH			
		1	1	RAI	H			
		1	1					
		1		RAH				
				ORA	Y			
		1 1		1000 (177) I				
	1	1	RAH RAH					
		1 1	HOO					
				GO				
	1	• • •		00				
		1 1		GO				
	1	1		0				

Break

Program Listing

```
10 REM VIEW FROM THE BLIMP
100 PRINT
110 PRINT "YOU ARE PILOTING A BLIMP OVER THE"
120 PRINT "STREETS OF LOS ANGELES DURING THE"
130 PRINT "MARATHON. CHEERING CROWDS LINE"
140 PRINT "THE WAY."
150 PRINT
160 PRINT "HIT THE ENTER KEY TO SEE THE VIEW";
170 INPUT X$
180 PRINT
190 R=15
200 G=1
210 IF R>10 AND INT(RND(1)*10)<8 THEN GOSUB 340
220 G=2
230 PRINT TAB(R);"!";TAB(R+5);"!";
240 IF R>24 OR INT(RND(1)*10)>7 THEN 260
250 GOSUB 340
260 PRINT
270 ON INT(RND(1)*3)+1 GOTO 280,290,300
280 R=R-1
290 GOTO 310
300 R=R+1
310 IF R>32 THEN R=31
320 IF R<1 THEN R=2
330 GOTO 200
340 J=INT(RND(1)*3)+1
350 IF G=1 THEN Z=R-7
360 IF G=2 THEN Z=R+7
370 IF J=1 THEN PRINT TAB(Z); "HOORAY ";
380 IF J=2 THEN PRINT TAB(Z);" RAH ";
                                      ";
390 IF J=3 THEN PRINT TAB(Z);" GO
400 RETURN
```

If You Have . . .

APPLE II

Change: 160 PRINT "HIT THE RETURN KEY TO SEE THE VIEW";

ATARI

Add: 95 DIM X\$(1) 205 Z=0 225 IF Z=0 THEN Z=R:GOSUB 415 365 GOSUB 415

```
415 FOR T=1 TO Z
425 PRINT " ";:NEXT T: RETURN
Change: 160 PRINT "HIT THE RETURN KEY TO SEE THE VIEW";
210 IF R>10 AND INT(RND(0)*10)<8 THEN GOSUB 340
230 PRINT "!";" !";
240 IF R>24 OR INT(RND(0)*10)>7 THEN 260
270 ON INT(RND(0)*3)+1 GOTO 280,290,300
340 J=INT(RND(0)*3)+1
360 IF G=2 THEN Z=1
370 IF J=1 THEN PRINT "HOORAY ";
380 IF J=2 THEN PRINT " RAH ";
390 IF J=3 THEN PRINT " GO ";
```

COMMODORE 64

Change: 160 PRINT "HIT THE RETURN KEY TO SEE THE VIEW";

COMMODORE VIC-20

Change: 160 PRINT "HIT THE RETURN KEY TO SEE THE VIEW" 240 IF R>9 OR INT(RND(1)*10)>7 THEN 260 310 IF R>15 THEN R=14

TEXAS INSTRUMENTS 99/4A

Add:	315 325 355 365 375 385	GOSUB 340 R=23 R=2 Z=R-7 Z=R+7 PRINT TAB(Z); "HOORAY "; PRINT TAB(Z); "RAH "; PRINT TAB(Z); "GO ";
Change:	210 240 270 310 320 340 350 360 370	<pre>R=10 IF (R>10)*(INT(RND*10)<8) THEN 215 ELSE 220 IF (R>15)+(INT(RND*10)>7) THEN 260 ON INT(RND*3)+1 GOTO 280,290,300 IF R<=24 THEN 320 IF R>=1 THEN 330 J=INT(RND*3)+1 IF G<>1 THEN 360 IF G<>2 THEN 360 IF J<>1 THEN 380 IF J<>2 THEN 390 IF J<>3 THEN 400</pre>

TRS-80 COLOR COMPUTER

Change:	210	IF R>10 AND RND(10) <8 THEN GOSUB 340	,
		IF R>15 OR RND(10)>7 THEN 260	
	270	ON RND(3) GOTO 280,290,300	
	310	IF R>23 THEN R=22	
	340	J=RND(3)	

How Long Is That Race?_

The two most popular systems of measurement — English and metric — can cause tremendous confusion. Which is longer — the 100-yard dash or the 100 meters? Is a 10-kilometer run more difficult than a mile? This program will put the answers at your fingertips.

Sample Run

YOU KNOW HOW LONG A RACE IS IN THE METRIC SYSTEM, BUT YOU WANT TO KNOW HOW LONG IT IS IN THE ENGLISH SYSTEM--OR VICE VERSA. I'LL BE GLAD TO HELP.

HOW IS THE RACE MEASURED: METERS, KILOMETERS, YARDS, OR MILES? METERS

HOW MANY METERS IS THE RACE? 100

THE RACE IS 100 METERS LONG. THAT'S 109.36 YARDS.

RUN

YOU KNOW HOW LONG A RACE IS IN THE METRIC SYSTEM, BUT YOU WANT TO KNOW HOW LONG IT IS IN THE ENGLISH SYSTEM--OR VICE VERSA. I'LL BE GLAD TO HELP.

HOW IS THE RACE MEASURED: METERS, KILOMETERS, YARDS, OR MILES? KILOMETERS

HOW MANY KILOMETERS IS THE RACE? 5

THE RACE IS 5 KILOMETERS LONG. THAT'S 3.107 MILES.

RUN

YOU KNOW HOW LONG A RACE IS IN THE METRIC SYSTEM, BUT YOU WANT TO KNOW HOW LONG IT IS IN THE ENGLISH SYSTEM--OR VICE VERSA. I'LL BE GLAD TO HELP.

HOW IS THE RACE MEASURED: METERS, KILOMETERS, YARDS, OR MILES? MILES

(continued)

29

HOW MANY MILES IS THE RACE? 1

THE RACE IS 1 MILE LONG. THAT'S 1.609 KILOMETERS.

Program Listing

10 REM HOW LONG IS THAT RACE? 100 PRINT "YOU KNOW HOW LONG A RACE IS" 110 PRINT "IN THE METRIC SYSTEM, BUT YOU" 120 PRINT "WANT TO KNOW HOW LONG IT IS" 130 PRINT "IN THE ENGLISH SYSTEM--OR VICE" 140 PRINT "VERSA. I'LL BE GLAD TO HELP." 150 PRINT 160 PRINT "HOW IS THE RACE MEASURED:" 170 PRINT "METERS, KILOMETERS, YARDS, OR MILES" 180 INPUT US 190 T\$=MID\$(U\$,1,2) 200 IF T\$="YA" THEN C=.9144 210 IF T\$="MI" THEN C=1.609 220 IF T\$="ME" THEN C=1.0936 230 IF T\$="KI" THEN C=.6214 240 IF T\$<>"YA" AND T\$<>"MI" AND T\$<>"ME" AND T\$<>"KI" THEN 160 250 PRINT 260 PRINT "HOW MANY ";U\$;" IS THE RACE"; 270 INPUT D 280 IF D=0 THEN 260 290 IF T\$="YA" THEN S\$="METERS" 300 IF T\$="MI" THEN S\$="KILOMETERS" 310 IF T\$="ME" THEN S\$="YARDS" 320 IF T\$="KI" THEN S\$="MILES" 330 PRINT 340 PRINT "THE RACE IS ";D;U\$;" LONG." 350 PRINT "THAT'S ";D*C;" ";S\$;"."

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM U\$(10),T\$(2),S\$(10)

Change: 190 T\$=U\$(1,2)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 260 PRINT "HOW MANY ";U\$;" IS THE RACE"

TEXAS INSTRUMENTS 99/4A

Add:	215 225 235 295 305 315	CN=.9144 CN=1.609 CN=1.0936 CN=.6214 S\$="METERS" S\$="KILOMETERS" S\$="YARDS" S\$="MILES"
Change:	200 210	T\$+SEG\$(U\$,1,2) IF T\$<>"YA" THEN 210 IF T\$<>"MI" THEN 220 IF T\$<>"ME" THEN 230 IF T\$<>"KI" THEN 240 IF (T\$<>"YA")*(T\$<>"MI")*(T\$<>"ME")*(T\$<>"KI") THEN 160 IF T\$<>"YA" THEN 300 IF T\$<>"MI" THEN 310 IF T\$<>"ME" THEN 320 IF T\$<>"KI" THEN 330 PRINT "THAT'S";D*CN;S\$;"."

TRS-80 COLOR COMPUTER

No Changes Required

Olympic Boxer

Muhammad Ali and Sugar Ray Leonard are just two of the great boxers who rose to fame at the Olympic Games. You might just join them — but you'll have to weigh in first.

Sample Run

WHAT KIND OF BOXER ARE YOU? WEIGH IN HERE!

HOW MANY POUNDS DO YOU WEIGH? 105

YOU WEIGH 47.61905 KILOGRAMS.

YOU WEIGH MORE THAN Ø POUNDS (Ø KILOGRAMS) BUT NOT MORE THAN 105 POUNDS (48 KILOGRAMS). YOU ARE A LIGHT FLYWEIGHT BOXER.

RUN

WHAT KIND OF BOXER ARE YOU? WEIGH IN HERE!

HOW MANY POUNDS DO YOU WEIGH? 169

YOU WEIGH 76.64398 KILOGRAMS.

YOU WEIGH MORE THAN 165 POUNDS (75 KILOGRAMS) BUT NOT MORE THAN 178 POUNDS (81 KILOGRAMS). YOU ARE A LIGHT HEAVYWEIGHT BOXER.

Program Listing

```
10 REM OLYMPIC BOXER

100 PRINT

110 PRINT "WHAT KIND OF BOXER ARE YOU?"

120 PRINT "WEIGH IN HERE!"

130 PRINT

140 PRINT "HOW MANY POUNDS DO YOU WEIGH";
```

150 INPUT W 160 IF W=0 THEN 140 170 PRINT 180 IF W>178 THEN 280 190 READ T 200 IF T=81 THEN 240 210 IF W<=T*2.205 THEN 240 220 M=T 230 GOTO 190 240 FOR I=1 TO 10 250 READ C\$ 260 NEXT I 270 GOTO 320 280 PRINT "YOU WEIGH MORE THAN 178 POUNDS." 290 PRINT "(81 KILOGRAMS)" 300 PRINT "YOU ARE A HEAVYWEIGHT BOXER." 310 END 320 PRINT "YOU WEIGH "; W/2.205; " KILOGRAMS." 330 PRINT 340 PRINT "YOU WEIGH MORE THAN "; INT(M*2.205);" POUNDS" 350 PRINT "(";M;" KILOGRAMS)" 360 PRINT "BUT NOT MORE THAN "; INT(T*2.205);" POUNDS" 370 PRINT "(";T;" KILOGRAMS)." 380 PRINT "YOU ARE A ";C\$; "WEIGHT BOXER." 390 PRINT 400 DATA 48,51,54,57,60 410 DATA 63.5,67,71,75,81 420 DATA LIGHT FLY, FLY 430 DATA BANTAM, FEATHER 440 DATA LIGHT, LIGHT WELTER, WELTER 450 DATA LIGHT MIDDLE, MIDDLE 460 DATA LIGHT HEAVY

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM C\$(12)

COMMODORE 64

No Changes Required

(continued)

COMMODORE VIC-20

Change: 140 PRINT "HOW MANY POUNDS DO YOU WEIGH"

TEXAS INSTRUMENTS 99/4A No Changes Required

TRS-80 COLOR COMPUTER No Changes Required

What Day Is the Event?_

It would be a shame to miss your one big Olympic chance just because you didn't know what day of the week your event was being held. With this program, you can help Olympic athletes from foreign countries — in five different languages.

Sample Run

FOREIGN ATHLETES WANT TO FIND OUT WHAT DAY THEIR EVENTS ARE BEING HELD. AS A GOOD OLYMPIC HOST, YOU KNOW THE ANSWERS--BUT YOU DON'T KNOW ANY FOREIGN LANGUAGES. HELP IS ON THE WAY!

- 1 ENGLISH
- 2 SWEDISH
- 3 FRENCH
- 4 ITALIAN
- 5 SPANISH
- 6 GERMAN

SELECT A LANGUAGE BY NUMBER? 2

LANGUAGE SELECTED: SWEDISH

- 1 SUNDAY
- 2 MONDAY
- 3 TUESDAY
- 4 WEDNESDAY
- 5 THURSDAY
- 6 FRIDAY
- 7 SATURDAY

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A DAY OF THE WEEK, ENTER THE CORRECT NUMBER? 5

IN SWEDISH, THURSDAY IS TORSDAG.

(continued)

[There's more—when you get to the end of the program, you'll see something like this:]

IN GERMAN, WEDNESDAY IS MITTWOCH.

- 1 SUNDAY
- 2 MONDAY
- 3 TUESDAY
- 4 WEDNESDAY
- 5 THURSDAY
- 6 FRIDAY
- 7 SATURDAY

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A DAY OF THE WEEK, ENTER THE CORRECT NUMBER? Q

Program Listing

```
10 REM WHAT DAY IS THE EVENT?
100 PRINT
110 PRINT "FOREIGN ATHLETES WANT TO FIND OUT WHAT"
120 PRINT "DAY THEIR EVENTS ARE BEING HELD. AS"
130 PRINT "A GOOD OLYMPIC HOST, YOU KNOW THE"
140 PRINT "ANSWERS--BUT YOU DON'T KNOW ANY FOREIGN"
150 PRINT "LANGUAGES. HELP IS ON THE WAY!"
160 PRINT
170 FOR C=1 TO 6
180 Y=C
190 GOSUB 630
200 PRINT TAB(2);C;TAB(5);F$
210 NEXT C
220 PRINT
230 PRINT "SELECT A LANGUAGE BY NUMBER";
240 INPUT L$
250 L=VAL(L$)
260 IF L<1 OR L>6 THEN 230
270 Y=L
280 GOSUB 630
290 PRINT
300 PRINT "LANGUAGE SELECTED: ";F$
310 PRINT
320 FOR X=1 TO 7
33Ø Y=6
34Ø Z=(X*6)-5
```

350 GOSUB 630 360 PRINT TAB(2);X;TAB(5);D\$ 370 NEXT X 380 PRINT 390 PRINT "(TO SWITCH LANGUAGES, ENTER "; CHR\$(34); "S"; CHR\$(34) 400 PRINT "--TO QUIT, ENTER "; CHR\$(34); "Q"; CHR\$(34); ")" 410 PRINT "TO TRANSLATE A DAY OF THE WEEK," 420 PRINT "ENTER THE CORRECT NUMBER"; 430 INPUT C\$ 440 IF C\$="Q" THEN END 450 C=VAL(CS)460 IF C\$="S" THEN 160 470 IF C>0 AND C<8 THEN 490 480 GOTO 420 490 PRINT 500 PRINT 510 Y=L 520 GOSUB 630 530 PRINT "IN ";F\$;", "; 54Ø Y=6 55Ø Z=(C*6)-5 560 GOSUB 630 570 PRINT D\$;" IS "; 580 Z = (C*6) - (6-L)590 GOSUB 630 600 PRINT D\$; "." 610 GOTO 310 620 REM --- READING SUBROUTINE ---630 FOR P=1 TO Y 640 READ F\$ 650 NEXT P 660 FOR Q=1 TO Z 670 READ D\$ 680 NEXT Q 690 RESTORE 700 RETURN 710 DATA ENGLISH, SWEDISH, FRENCH, ITALIAN, SPANISH, GERMAN 720 DATA SUNDAY, SONDAG, DIMANCHE, DOMENICA, DOMINGO, SONNTAG 730 DATA MONDAY, MANDAG, LUNDI, LUNEDI, LUNES, MONTAG 740 DATA TUESDAY, TISDAG, MARDI, MARTEDI, MARTES, DIENSTAG 750 DATA WEDNESDAY, ONSDAG, MERCREDI, MERCOLEDI, MIERCOLES, MITTWOCH 760 DATA THURSDAY, TORSDAG, JEUDI, GIOVEDI, JUEVES, DONNERSTAG 770 DATA FRIDAY, FREDAG, VENDREDI, VENERDI, VIERNES, FREITAG

780 DATA SATURDAY, LORDAG, SAMEDI, SABATO, SABADO, SONNABEND

APPLE II No Changes Required

ATARI

Add: 95 DIM F\$(11), D\$(11), L\$(1), C\$(2)

Change: 200 PRINT " ";C;" ";F\$ 360 PRINT " ";X;" ";D\$ 450 IF C\$="S" THEN 160 460 IF ASC(C\$)<49 OR ASC(C\$)>55 THEN 420 470 C=VAL(C\$):GOTO 490

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 230 PRINT "SELECT A LANGUAGE BY NUMBER" 420 PRINT "ENTER THE CORRECT NUMBER"

TEXAS INSTRUMENTS 99/4A

Add:	445	END	
	475	GOTO	490

Change: 260 IF (L<1)+(L>6) THEN 230 440 IF C\$="Q" THEN 445 ELSE 450 450 IF C\$="S" THEN 160 460 IF (ASC(C\$)<49)+(ASC(C\$)>55) THEN 420 470 C=VAL(C\$)

TRS-80 COLOR COMPUTER

Delete: 220

Olympic Coach

Training for the Olympics is hard work. Here's your own personal coach to help!

Sample Run

NEED A COACH TO HELP YOU STICK TO YOUR TRAINING? I'LL BE GLAD TO HELP.
JUST HIT THE ENTER KEY?
PRACTICE! PRACTICE!
· Internet - second in the second second

Break

Program Listing

```
10 REM OLYMPIC COACH

100 PRINT

110 PRINT "NEED A COACH TO HELP YOU STICK TO"

120 PRINT "YOUR TRAINING? I'LL BE GLAD TO HELP."

130 PRINT

140 PRINT "JUST HIT THE ENTER KEY";

150 INPUT X$

160 PRINT

170 FOR I=1 TO 245

180 FOR J=1 TO 300

190 NEXT J

200 PRINT "PRACTICE! PRACTICE!"

210 PRINT

220 NEXT I
```

APPLE II

Change: 140 PRINT "JUST HIT THE RETURN KEY";

ATARI

Add: 95 DIM X\$(1) Change: 140 PRINT "JUST HIT THE RETURN KEY";

COMMODORE 64

Change: 140 PRINT "JUST HIT THE RETURN KEY";

COMMODORE VIC-20

Change: 140 PRINT "JUST HIT THE RETURN KEY"

TEXAS INSTRUMENTS 99/4A No Changes Required

TRS-80 COLOR COMPUTER No Changes Required

Bronze Medal Diver

The diver is on the high board! Take a look at this bronze-medal style!

Sample Run

1

THE DIVER IS ON THE BOARD! HIT THE ENTER KEY TO SEE A BRONZE MEDAL DIVE?

WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

1

1

Program Listing

```
10 REM BRONZE MEDAL DIVER
100 PRINT
110 PRINT "THE DIVER IS ON THE BOARD!"
120 PRINT "HIT THE ENTER KEY TO SEE A"
130 PRINT "BRONZE MEDAL DIVE";
140 INPUT X$
150 PRINT CHR$(12)
160 FOR I=1 TO 6
170 PRINT "-";
180 NEXT I
190 PRINT
```

(continued)

```
200 FOR I=7 TO 22
210 FOR J=1 TO I
220 PRINT ";
230 NEXT J
240 PRINT "!"
250 NEXT I
260 FOR L=1 TO 38
270 PRINT "W";
280 NEXT L
290 PRINT
300 FOR I=23 TO 24
310 FOR J=1 TO I
320 PRINT " ";
330 NEXT J
340 PRINT "!"
350 NEXT I
360 PRINT
```

APPLE II

Change: 120 PRINT "HIT THE RETURN KEY TO SEE A" 150 HOME

ATARI

Add: 95 DIM X\$(1)

Change: 120 PRINT "HIT THE RETURN KEY TO SEE A" 150 PRINT CHR\$(125) 260 FOR L=1 TO 36

COMMODORE 64

Change: 120 PRINT "HIT THE RETURN KEY TO SEE A" 150 PRINT CHR\$(147)

COMMODORE VIC-20

Change: 120 PRINT "HIT THE RETURN KEY TO SEE A" 130 PRINT "BRONZE MEDAL DIVE" 150 PRINT CHR\$(147) 200 FOR I=7 TO 18 260 FOR L=1 TO 22 300 FOR I=19 TO 20

TEXAS INSTRUMENTS 99/4A

Change: 150 CALL CLEAR 260 FOR L=1 TO 28

TRS-80 COLOR COMPUTER

Change:	150	CLS			
	200	FOR	I=7	TO	15
	260	FOR	L=1	TO	31
	300	FOR	I=16	5 TC) 17

Olympic Souvenirs

It's fun to meet people from other countries. But it's not always easy to figure out how much their money is worth. You can get the current rate of exchange from your local bank or the business section of a newspaper. Then this program can help you find out exactly how much that Swiss sweatshirt will cost in dollars!

Sample Run

YOU'RE AN AMERICAN ATHLETE AND YOU WANT TO BUY SOUVENIRS FROM OTHER COUNTRIES' ATHLETES.

THEY TELL YOU THE PRICE IN THEIR COUNTRY'S MONEY. AND YOU NEED TO KNOW HOW MANY DOLLARS TO GIVE THEM.

WHAT IS ONE UNIT OF THE FOREIGN CURRENCY CALLED? FRANC

HOW MANY FRANCS WILL IT TAKE TO BUY WHAT YOU WANT? 223

HOW MANY FRANCS ARE THERE TO THE DOLLAR? 7.7

YOU NEED \$28.96 TO BUY SOMETHING COSTING 223 FRANCS.

RUN

YOU'RE AN AMERICAN ATHLETE AND YOU WANT TO BUY SOUVENIRS FROM OTHER COUNTRIES' ATHLETES.

THEY TELL YOU THE PRICE IN THEIR COUNTRY'S MONEY. AND YOU NEED TO KNOW HOW MANY DOLLARS TO GIVE THEM.

WHAT IS ONE UNIT OF THE FOREIGN CURRENCY CALLED? DRACHMA

HOW MANY DRACHMAS WILL IT TAKE TO BUY WHAT YOU WANT? 1000 HOW MANY DRACHMAS ARE THERE TO THE DOLLAR? 93.4

YOU NEED \$10.71 TO BUY SOMETHING COSTING 1000 DRACHMAS.

Program Listing

10 REM OLYMPIC SOUVENIRS 100 PRINT 110 PRINT "YOU'RE AN AMERICAN ATHLETE" 120 PRINT "AND YOU WANT TO BUY SOUVENIRS" 130 PRINT "FROM OTHER COUNTRIES' ATHLETES." 140 PRINT 150 PRINT "THEY TELL YOU THE PRICE" 160 PRINT "IN THEIR COUNTRY'S MONEY." 170 PRINT "AND YOU NEED TO KNOW" 180 PRINT "HOW MANY DOLLARS TO GIVE THEM." 190 PRINT 200 PRINT "WHAT IS ONE UNIT OF" 210 PRINT "THE FOREIGN CURRENCY CALLED"; 220 INPUT F\$ 230 IF F\$="" THEN 200 240 PRINT 250 PRINT "HOW MANY ";F\$;"S WILL IT TAKE" 260 PRINT "TO BUY WHAT YOU WANT"; 270 INPUT C 280 IF C=0 THEN 250 290 PRINT 300 PRINT "HOW MANY ";F\$;"S" 310 PRINT "ARE THERE TO THE DOLLAR"; 320 INPUT D 330 IF D=0 THEN 300 340 PRINT 350 PRINT "YOU NEED \$"; INT(C/D*100+.5)/100 360 PRINT "TO BUY SOMETHING COSTING" 370 PRINT C; " ";F\$; "S."

APPLE II No Changes Required

ATARI

Add: 95 DIM F\$(20)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 210 PRINT "THE FOREIGN CURRENCY CALLED" 260 PRINT "TO BUY WHAT YOU WANT" 310 PRINT "ARE THERE TO THE DOLLAR"

TEXAS INSTRUMENTS 99/4A No (

No Changes Required

TRS-80 COLOR COMPUTER

No Changes Required

Decathlon

There are ten events in the decathlon, and they're always run in the same order. If you expect to train and win, you'd better know which ones come first and which come last!

Sample Run

THE DECATHLON CONSISTS OF TEN EVENTS.

YOU MUST ENTER ALL THE EVENTS IN THE RIGHT ORDER. THE OLYMPIC COMMITTEE WON'T WAIT FOR YOU!

A: 100 METER RUN B: 400 METER RUN C: 1500 METER RUN D: 110 METER HURDLES E: LONG JUMP F: HIGH JUMP G: POLE VAULT H: JAVELIN I: DISCUS J: SHOTPUT

WHICH EVENT WILL YOU ENTER? A RIGHT! THAT'S EVENT NUMBER 1

A: 100 METER RUN B: 400 METER RUN C: 1500 METER RUN D: 110 METER HURDLES E: LONG JUMP F: HIGH JUMP G: POLE VAULT H: JAVELIN I: DISCUS J: SHOTPUT

NOW WHICH EVENT WILL YOU ENTER? B TOO EARLY! IT HASN'T STARTED YET! TRY AGAIN!

(continued)

[There's more—when you get to the end of the program, you'll see something like this:]

NOW WHICH EVENT WILL YOU ENTER? C RIGHT! THAT'S EVENT NUMBER 10

YOU WERE EARLY OR LATE 13 TIMES. TRY AGAIN IN FOUR YEARS.

Program Listing

```
10 REM DECATHLON
100 PRINT "THE DECATHLON CONSISTS OF TEN EVENTS."
110 PRINT
120 PRINT "YOU MUST ENTER ALL THE EVENTS"
130 PRINT "IN THE RIGHT ORDER. THE OLYMPIC"
140 PRINT "COMMITTEE WON'T WAIT FOR YOU!"
150 PRINT
160 GOSUB 500
170 FOR I=1 TO 10
180 INPUT TS
190 IF T$="" THEN 180
200 IF ASC(T$)<65 OR ASC(T$)>74 THEN 180
210 N=ASC(T$)-64
220 FOR J=1 TO N
230 READ P
240 NEXT J
250 RESTORE
260 IF P=I THEN 340
270 IF I<P THEN PRINT "TOO EARLY! IT HASN'T STARTED YET!"
280 IF I>P THEN PRINT "YOU ALREADY FINISHED THAT ONE!"
290 PRINT "TRY AGAIN!"
300 PRINT
310 C=C+1
320 GOSUB 500
330 GOTO 180
340 PRINT "RIGHT! THAT'S EVENT NUMBER "; I
350 PRINT
360 IF I=5 THEN PRINT "IT'S NOW THE SECOND DAY"
370 IF I=5 THEN PRINT "OF THE DECATHLON:"
380 PRINT
390 IF I<10 THEN GOSUB 500
400 NEXT I
410 IF C>1 THEN 460
420 PRINT "CONGRATULATIONS, CHAMPION!"
```

430 PRINT "YOU ENTERED ALL THE EVENTS" 440 PRINT "RIGHT ON TIME!" 450 END 460 PRINT "YOU WERE EARLY OR LATE" 470 PRINT C;" TIMES. TRY AGAIN" 480 PRINT "IN FOUR YEARS." 490 END 500 FOR K=1 TO 20 510 READ ES 520 IF K>10 THEN PRINT CHR\$(54+K);": ";E\$ 530 NEXT K 540 RESTORE 550 PRINT 560 IF I>1 THEN PRINT "NOW "; 570 PRINT "WHICH EVENT WILL YOU ENTER"; 580 RETURN 590 DATA 1,5,10,6,2,4,8,9,7,3 600 DATA 100 METER RUN,400 METER RUN,1500 METER RUN 610 DATA 110 METER HURDLES, LONG JUMP, HIGH JUMP 620 DATA POLE VAULT, JAVELIN, DISCUS, SHOTPUT

☐ If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM T\$(2), E\$(20)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Delete: 110, 150

Change: 570 PRINT "WHICH EVENT WILL YOU ENTER"

TEXAS INSTRUMENTS 99/4A

Add: 275 PRINT "TOO EARLY! IT HASN'T STARTED YET!"
285 PRINT "YOU ALREADY FINISHED THAT ONE!"
365 PRINT "IT'S NOW THE SECOND DAY"
395 GOSUB 500
525 PRINT CHR\$(54+K);": ";E\$
565 PRINT "NOW ";

(continued)

Change:	270	IF I>=P THEN 280
	280	IF I<=P THEN 290
		IF I<>5 THEN 380
	370	PRINT "OF THE DECATHLON:"
	390	IF I>=10 THEN 400
	52Ø	IF K<=10 THEN 530
	560	IF I<=1 THEN 570

TRS-80 COLOR COMPUTER

Add: 155 PRINT "HIT ENTER KEY TO BEGIN"; 156 INPUT X\$ Change: 270 IF I<P THEN PRINT "TOO EARLY! IT HASN'T STARTED YET! "; 280 IF I>P THEN PRINT "YOU ALREADY FINISHED THAT ONE! ";

360 IF I=5 THEN PRINT "IT'S NOW THE SECOND DAY "; 370 IF I=5 THEN PRINT "OF THE DECATHLON: ";

Equipment Manager

Somebody has to keep track of the Olympic athletic equipment, and that somebody is you! Just be careful not to forget anything — your team's future is riding on it!

Sample Run

YOU'RE THE EQUIPMENT MANAGER FOR THE OLYMPIC VILLAGE.

HOW MANY WEEKS HAVE YOU BEEN DOING THIS JOB? 10

YOU MUST KEEP TRACK OF ALL THE ATHLETIC EQUIPMENT.

THE TEAM FROM JAPAN HAS 20 MEMBERS. EACH MEMBER HAS 4 SHIRTS.

HOW MANY SHIRTS DOES THE TEAM FROM JAPAN HAVE? 80

GOOD GOING! BUT YOU'RE NOT DONE YET!

THE TEAM FROM CUBA HAS 26 MEMBERS. EACH MEMBER HAS 2 PAIRS OF SOCKS.

HOW MANY SOCKS DOES THE TEAM FROM CUBA HAVE? 52

YOU ONLY COUNTED HALF THE FEET! TRY AGAIN! HOW MANY SOCKS DOES THE TEAM FROM CUBA HAVE? 104

GOOD GOING! BUT YOU'RE NOT DONE YET!

THE TEAM FROM EAST GERMANY HAS 119 MEMBERS. EACH MEMBER HAS 8 SHIRTS.

HOW MANY SHIRTS DOES THE TEAM FROM EAST GERMANY HAVE? 952

GOOD GOING! THE TEAMS AWARD YOU A GOLD MEDAL FOR YOUR WORK!

Program Listing

```
10 REM EOUIPMENT MANAGER
100 PRINT
110 PRINT "YOU'RE THE EOUIPMENT MANAGER"
120 PRINT "FOR THE OLYMPIC VILLAGE."
130 PRINT
140 PRINT "HOW MANY WEEKS HAVE YOU BEEN"
150 PRINT "DOING THIS JOB";
160 INPUT R
170 RANDOMIZE R
180 PRINT
190 PRINT "YOU MUST KEEP TRACK OF ALL"
200 PRINT "THE ATHLETIC EOUIPMENT."
210 M=20+INT(RND(1)*100)
220 PRINT
230 FOR Z=1 TO INT(1+(RND(1)*20))
240 READ C$
250 NEXT Z
260 RESTORE
270 FOR I=1 TO 21+INT(RND(1)*4)
280 READ D$
290 NEXT I
300 RESTORE
310 PRINT "THE TEAM FROM ";C$;" HAS ";M;" MEMBERS."
320 S=2+INT(RND(1)*4)
330 PRINT "EACH MEMBER HAS "
340 IF I<24 THEN PRINT S*2;" ";D$;"."
350 IF I>23 THEN PRINT S;" PAIRS OF ";D$;"."
360 PRINT
370 PRINT "HOW MANY ";D$;" DOES THE"
380 PRINT "TEAM FROM ";C$;" HAVE";
390 INPUT PS
400 IF PS=0 THEN 370
410 PRINT
420 IF PS=S*M*2 THEN 580
430 IF F=2 THEN 490
440 IF Z>2 AND PS=S*M THEN PRINT "YOU ONLY COUNTED HALF
    THE FEET!"
450 IF PS<>S*M THEN PRINT "NO!"
460 PRINT "TRY AGAIN!"
47Ø F=F+1
480 GOTO 370
490 PRINT
500 PRINT "THE RIGHT ANSWER WAS "; S*M*2;"!"
510 PRINT "YOU LOST TRACK OF THE ";D$;","
520 PRINT "SO THE TEAM FROM ";C$
530 PRINT "LOST ON THE TRACK!"
540 PRINT
550 PRINT "YOU'RE FIRED!"
560 PRINT
570 END
58Ø W=W+1
```

```
590 PRINT "GOOD GOING!"
600 IF W=3 THEN 640
610 F=0
620 PRINT "BUT YOU'RE NOT DONE YET!"
630 GOTO 210
640 PRINT "THE TEAMS AWARD YOU A GOLD MEDAL"
650 PRINT "FOR YOUR WORK!"
660 PRINT
670 DATA U.S.A.,U.S.S.R.,EAST GERMANY,WEST GERMANY
680 DATA JAPAN,POLAND,BULGARIA,CUBA,FINLAND,SWEDEN
690 DATA BRITAIN,ITALY,CZECHOSLOVAKIA,FRANCE
700 DATA YUGOSLAVIA,NEW ZEALAND,SOUTH KOREA
710 DATA SWITZERLAND,DENMARK,ROMANIA
720 DATA SHIRTS,JACKETS,SHOES,SOCKS
```

APPLE II

Delete: 170

ATARI

- Delete: 170
 - Add: 95 DIM C\$(16),D\$(11)
- Change: 210 M=20+INT(RND(0)*100) 230 FOR Z=1 TO INT(1+(RND(0)*20)) 270 FOR I=1 TO 21+INT(RND(0)*4) 320 S=2+INT(RND(0)*4)

COMMODORE 64

Delete: 170

Change: 210 M=20+INT(RND(0)*100) 230 FOR Z=1 TO INT(1+(RND(0)*20)) 270 FOR I=1 TO 21+INT(RND(0)*4) 320 S=2+INT(RND(0)*4)

COMMODORE VIC-20

Delete: 170

Change: 150 PRINT "DOING THIS JOB" 210 M=20+INT(RND(0)*100)

(continued)

230 FOR Z=1 TO INT(1+(RND(0)*20)) 270 FOR I=1 TO 21+INT(RND(0)*4) 320 S=2+INT(RND(0)*4) 380 PRINT "TEAM FROM ";C\$;" HAVE"

TEXAS INSTRUMENTS 99/4A

Add:	355 445	PRINT S*2;" ";D\$;"." PRINT S;" PAIRS OF ";D\$;"." PRINT "YOU ONLY COUNTED HALF THE FEET!" PRINT "NO!
Change:	23Ø 27Ø 32Ø	M=20+INT(RND*100) FOR Z=1 TO INT(RND*20) FOR I=1 TO 21+INT(RND*4) S=2+INT(RND*4)
		IF I>=24 THEN 350 IF I<=23 THEN 360
		IF $(Z>2)$ * (PS=S*M) THEN 445 ELSE 450
		IF $PS=S*M$ THEN 460

TRS-80 COLOR COMPUTER

Delete: 170

Change:	210	$M=2\emptyset+RND(1\emptyset\emptyset)$
	230	FOR Z=1 TO RND(20)
	270	FOR $I=1$ TO $2\emptyset$ +RND(4)
	320	S=2+RND(4)

High Hurdles

It's you against the current world champion in the high hurdles! You're just a few steps and jumps from a gold medal... but can you bring it home?

Sample Run

THIS WILL TEST HOW GOOD A HURDLER YOU <Y> ARE.

YOUR OPPONENT IS <0>.

TO RUN FORWARD, YOU HIT THE ENTER KEY.

BUT TO JUMP A HURDLE <HHHHHHH> YOU HAVE TO HIT THE J KEY FIRST.

AFTER EACH TURN, THE SCREEN WILL SHOW WHETHER YOU OR YOUR OPPONENT HIT A HURDLE OR JUMPED TOO EARLY. EITHER ERROR WILL SLOW YOU DOWN.

HOW MANY TIMES HAVE YOU RUN THE HURDLES? 24

	<hi< th=""><th>нннн</th><th>H><hh< th=""><th>HHHH</th><th>H></th><th>?</th><th>J</th></hh<></th></hi<>	нннн	H> <hh< th=""><th>HHHH</th><th>H></th><th>?</th><th>J</th></hh<>	HHHH	H>	?	J
	<	Y	><	0	>	?	
	<hi< td=""><td>нннн</td><td>H><hh< td=""><td>HHHH</td><td>H></td><td>?</td><td>J</td></hh<></td></hi<>	нннн	H> <hh< td=""><td>HHHH</td><td>H></td><td>?</td><td>J</td></hh<>	HHHH	H>	?	J
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>EARLY	Y ?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	??	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
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	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	
	<	Y	><	0	>	?	

YOUR OPPONENT BEAT YOU. BETTER LUCK NEXT TIME.

Program Listing

```
10 REM HIGH HURDLES
100 PRINT "THIS WILL TEST HOW GOOD"
110 PRINT "A HURDLER YOU <Y> ARE."
120 PRINT
130 PRINT "YOUR OPPONENT IS <0>."
140 PRINT
150 PRINT "TO RUN FORWARD, YOU HIT"
160 PRINT "THE ENTER KEY."
170 PRINT
180 PRINT "BUT TO JUMP A HURDLE <HHHHHHH>"
190 PRINT "YOU HAVE TO HIT THE J KEY FIRST."
200 PRINT
210 PRINT "AFTER EACH TURN, THE SCREEN"
220 PRINT "WILL SHOW WHETHER YOU OR YOUR"
230 PRINT "OPPONENT HIT A HURDLE OR JUMPED"
240 PRINT "TOO EARLY. EITHER ERROR WILL"
250 PRINT "SLOW YOU DOWN."
260 PRINT
270 PRINT "HOW MANY TIMES HAVE YOU RUN"
280 PRINT "THE HURDLES";
290 INPUT R
300 RANDOMIZE R
310 M$=" "
320 PRINT CHR$(12)
330 FOR I=1 TO 20
340 IF INT(RND(1)*10)<3 THEN 380
350 PRINT TAB(7)"< Y >< O >";M$;
36Ø H$=""
370 GOTO 400
38Ø H$="J"
390 PRINT TAB(7) "<HHHHHHH><HHHHHHH>";M$;
400 INPUT J$
410 IF J$<>H$ THEN 440
420 M$=" "
430 GOTO 510
440 IF HS="" THEN 480
450 PRINT "HIT";
460 H=H+1
470 GOTO 510
480 PRINT "EARLY";
490 E=E+1
500 HS=""
510 IF I=20 THEN 570
520 IF INT(RND(1)*10)>1 THEN 570
530 IF HS="" THEN FE=FE+1
540 IF H$="" THEN M$="EARLY "
550 IF H$="J" THEN FH=FH+1
560 IF H$="J" THEN M$=" HIT "
570 NEXT I
580 PRINT
590 Y = 20 - H - (E/2)
```

```
600 F=20-FH-(FE/2)
610 IF Y>F THEN 660
620 IF Y=F THEN 690
630 PRINT "YOUR OPPONENT BEAT YOU."
640 PRINT "BETTER LUCK NEXT TIME."
650 END
660 PRINT "YOU WIN!"
670 PRINT "YOU WIN!"
670 PRINT "YOU'RE THE GOLD MEDAL HURDLER!"
680 END
690 PRINT "DEAD HEAT!"
700 PRINT "YOU BOTH GET GOLD MEDALS."
```

APPLE II

Delete: 300

Change: 160 PRINT "THE RETURN KEY." 320 HOME

ATARI

Dol	01	10.	2	a	a
Del	ICI	LC.	3	Ø	Ø

Add: 95 DIM M\$(7),H\$(1),J\$(1) 325 R1=7 425 R1=7 455 R1=4 485 R1=2 705 END 715 FOR L=1 TO R1 725 PRINT " ";:NEXT L: RETURN

Change: 160 PRINT "THE RETURN KEY." 320 PRINT CHR\$(125) 340 IF INT(RND(0)*10)<3 THEN 380 350 GOSUB 715:PRINT "< Y >< O >";M\$; 390 GOSUB 715:PRINT "<HHHHHHH><HHHHHHH>";M\$; 520 IF INT(RND(0)*10)>1 THEN 570

COMMODORE 64

Delete: 300

Change: 160 PRINT "THE RETURN KEY." 320 PRINT "CHR\$(147)

(continued)

COMMODORE VIC-20

Delete: 120,140,170,200,300

Add:	315	J\$="N"
	571	J\$="N"
	572	NEXT I

Change:	150	PRINT "TO RUN FORWARD, YOU"
		PRINT "HIT THE RETURN KEY."
	180	PRINT "BUT TO JUMP A HURDLE <hhh>"</hhh>
	270	PRINT "HOW MANY TIMES HAVE"
	280	PRINT "YOU RUN THE HURDLES"
	320	PRINT CHR\$(147)
		IF INT(RND(0) *10) <3 THEN 380
		PRINT TAB(6) "< Y >< O >";M\$
	360	H\$="N"
	390	PRINT TAB(6) " <hhh><hhh>";M\$</hhh></hhh>
	440	IF H\$="N" THEN 480
	500	H\$="N"
	520	IF INT(RND(0) *10)>1 THEN 570
		IF H\$="N" THEN FE=FE+1
		IF H\$="N" THEN M\$="EARLY "
	570	H\$="N"

TEXAS INSTRUMENTS 99/4A

Add:	535	FE=FE+1
	555	FH=FH+1

Change:	320	CALL CLEAR
0	340	IF INT(RND*10)<3 THEN 380
		PRINT TAB(6);"< Y >< O >";M\$;
	390	PRINT TAB(6); " <hhhhh><hhhhh>"; M\$;</hhhhh></hhhhh>
		IF INT(RND*10)>1 THEN 570
		IF H\$<>"" THEN 550
		M\$="EARLY "
	550	IF H\$<>"J" THEN 570
		MS=" HIT "

TRS-80 COLOR COMPUTER

		-		,			
Change:	320	CLS	5				
	340	IF	RND	(10)	<3	THEN	380
	520	IF	RND	(10)	>1	THEN	57Ø

Delete: 120, 140, 170, 200, 300

Olympic Weight Lifter

Are you a flyweight, a super-heavyweight, or somewhere in between? This program will tell you!

Sample Run

YOU'RE A WEIGHTLIFTER--BUT WHAT KIND DEPENDS ON HOW MUCH YOU WEIGH. JUST LIFT YOUR OWN WEIGHT ONTO THESE SCALES.

HOW MANY POUNDS DO YOU WEIGH? 125

YOU WEIGH 56.68934 KILOGRAMS.

YOU WEIGH MORE THAN 123 POUNDS (56 KILOGRAMS) BUT NOT MORE THAN 132 POUNDS (60 KILOGRAMS). YOU ARE A FEATHERWEIGHT WEIGHTLIFTER.

RUN

YOU'RE A WEIGHTLIFTER--BUT WHAT KIND DEPENDS ON HOW MUCH YOU WEIGH. JUST LIFT YOUR OWN WEIGHT ONTO THESE SCALES.

HOW MANY POUNDS DO YOU WEIGH? 175

YOU WEIGH 79.36508 KILOGRAMS.

YOU WEIGH MORE THAN 165 POUNDS (75 KILOGRAMS) BUT NOT MORE THAN 180 POUNDS (82 KILOGRAMS). YOU ARE A LIGHT HEAVYWEIGHT WEIGHTLIFTER.

Program Listing

```
10 REM OLYMPIC WEIGHTLIFTER
100 PRINT
110 PRINT "YOU'RE A WEIGHTLIFTER--BUT WHAT"
120 PRINT "KIND DEPENDS ON HOW MUCH YOU"
130 PRINT "WEIGH. JUST LIFT YOUR OWN"
140 PRINT "WEIGHT ONTO THESE SCALES."
150 PRINT
160 PRINT "HOW MANY POUNDS DO YOU WEIGH";
170 INPUT W
180 IF W=0 THEN 160
190 PRINT
200 IF W>242 THEN 300
210 READ T
220 IF T=81 THEN 260
230 IF W<=T*2.205 THEN 260
240 M=T
250 GOTO 210
260 FOR I=1 TO 9
27Ø READ C$
280 NEXT I
290 GOTO 340
300 PRINT "YOU WEIGH MORE THAN 242 POUNDS."
310 PRINT "(100 KILOGRAMS)"
320 PRINT "YOU ARE A SUPER-HEAVYWEIGHT WEIGHTLIFTER."
330 END
340 PRINT "YOU WEIGH ";W/2.205;" KILOGRAMS."
350 PRINT
360 PRINT "YOU WEIGH MORE THAN "; INT(M*2.205);" POUNDS"
370 PRINT "(";M;" KILOGRAMS)"
380 PRINT "BUT NOT MORE THAN "; INT(T*2.205);" POUNDS"
390 PRINT "(";T;" KILOGRAMS)."
400 PRINT "YOU ARE A ";C$; "WEIGHT WEIGHTLIFTER."
410 PRINT
420 DATA 52,56,60,67,75
430 DATA 82,90,100,110
440 DATA FLY, BANTAM, FEATHER
450 DATA LIGHT, MIDDLE, LIGHT HEAVY
460 DATA MIDDLE HEAVY, 100-KILO, HEAVY
```

APPLE II No Changes Required

ATARI

Add: 95 DIM C\$(14)

Change: 400 PRINT "YOU'RE A ";C\$; "WEIGHT WEIGHTLIFTER."

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 160 PRINT "HOW MANY POUNDS DO YOU WEIGH"

TEXAS INSTRUMENTS 99/4A

No Changes Required

TRS-80 COLOR COMPUTER No Changes Required

Olympic Trainer

Many trainers say the best way to achieve a tough goal is to do it a little bit at a time. Now you can find out exactly how much better you must do each day to reach the goal you're striving for!

Sample Run

HOW MUCH DO YOU NEED TO IMPROVE EACH DAY TO REACH YOUR GOAL? I'LL HELP YOU FIND OUT!

USE COLONS AND DECIMAL POINT TO SEPARATE THE TIME: (3:45:20.2--NOT 3 HOURS,45 MINUTES,20.2 SECONDS)

WHAT IS YOUR CURRENT TIME FOR THIS RACE? 4:30.2

WHAT TIME DO YOU WANT TO ACHIEVE FOR THIS RACE? 3:49.8

HOW MANY DAYS DO YOU HAVE TO TRAIN? 150

YOU WILL NEED TO IMPROVE BY 26.93334 HUNDREDTHS OF A SECOND EACH DAY TO ACHIEVE YOUR GOAL.

RUN

HOW MUCH DO YOU NEED TO IMPROVE EACH DAY TO REACH YOUR GOAL? I'LL HELP YOU FIND OUT!

USE COLONS AND DECIMAL POINT TO SEPARATE THE TIME: (3:45:20.2--NOT 3 HOURS,45 MINUTES,20.2 SECONDS)

WHAT IS YOUR CURRENT TIME FOR THIS RACE? 13.3

WHAT TIME DO YOU WANT TO ACHIEVE FOR THIS RACE? 9.8

HOW MANY DAYS DO YOU HAVE TO TRAIN? 50

YOU WILL NEED TO IMPROVE BY 7 HUNDREDTHS OF A SECOND EACH DAY TO ACHIEVE YOUR GOAL.

Program Listing

10 REM OLYMPIC TRAINER 100 PRINT 110 PRINT "HOW MUCH DO YOU NEED TO IMPROVE" 120 PRINT "EACH DAY TO REACH YOUR GOAL?" 130 PRINT "I'LL HELP YOU FIND OUT!" 140 PRINT 150 PRINT "USE COLONS AND DECIMAL POINT" 160 PRINT "TO SEPARATE THE TIME:" 170 PRINT "(3:45:20.2--NOT" 180 PRINT "3 HOURS, 45 MINUTES, 20.2 SECONDS)" 190 PRINT 200 FOR J=1 TO 2 210 IF J=1 THEN PRINT "WHAT IS YOUR CURRENT TIME" 220 IF J=2 THEN PRINT "WHAT TIME DO YOU WANT TO ACHIEVE" 230 PRINT "FOR THIS RACE"; 240 INPUT AŞ 250 IF A\$="" THEN 210 260 PRINT 27Ø N=1:F=0:S=0:M=0:H=0 280 FOR I=LEN(A\$) TO 0 STEP -1 290 IF I=0 THEN 340 300 IF MID\$(A\$,I,1) <>"." THEN 330 310 N=0 320 GOTO 340 330 IF MID\$(A\$,I,1) <>":" THEN 410 340 IF N=0 THEN F=VAL(MID\$(L\$,1,1)) 350 IF N=1 THEN S=VAL(L\$) 360 IF N=2 THEN M=VAL(L\$) 370 IF N=3 THEN H=VAL(L\$) 38Ø N=N+1 390 L\$="" 400 GOTO 420 410 L\$=MID\$(A\$,I,1)+L\$ 420 NEXT I 430 T(J) = (H*3600) + (M*60) + S + (F/10)440 IF T(J)=0 THEN 210 450 NEXT J 460 IF T(1)>T(2) THEN 500 470 PRINT "DO YOU WANT TO GO SLOWER?" 480 PRINT "TRY AGAIN!" 490 GOTO 200 500 PRINT "HOW MANY DAYS DO YOU HAVE TO TRAIN"; (continued) 510 INPUT D

520	PRINT	
530	PRINT	"YOU WILL NEED TO IMPROVE BY"
		(T(1)-T(2))*100/D;
55Ø	PRINT	" HUNDREDTHS OF A SECOND EACH DAY
56Ø	PRINT	"TO ACHIEVE YOUR GOAL."
57Ø	PRINT	

APPLE II

Change: 230 PRINT "FOR THIS RACE. (ENCLOSE TIME IN QUOTES)";

ATARI

- Add: 95 DIM A\$(11),L\$(12),T(2) 375 TX=0 415 L\$(TX)=A\$(I,I)
- Change: 300 IF A\$(I,I)<>"." THEN 330 330 IF A\$(I,I)<>":" THEN 410 410 TX=TX+1

COMMODORE 64

Change: 150 PRINT "USE SEMICOLONS AND DECIMAL POINT" 170 PRINT "(3;45;20.2--NOT" 330 IF MID\$(A\$,I,1)<>";" THEN 410

COMMODORE VIC-20

Change: 150 PRINT "USE SEMICOLONS AND DECIMAL POINT" 170 PRINT "(3;45;20.2--NOT" 230 PRINT "FOR THIS RACE" 330 IF MID\$(A\$,1,1)<>";" THEN 410 500 PRINT "HOW MANY DAYS DO YOU HAVE TO TRAIN"

TEXAS INSTRUMENTS 99/4A

Add:	215	PRINT	"WHAT	IS YO	OUR	CURI	RENT ?	LIWE	3	
	225	PRINT	"WHAT	TIME	DO	YOU	WANT	TO	ACHIEVE	п
	271	F=Ø								
	272	S=Ø							1 1 1 1 2 1	
	273	M=Ø								
	274	H=Ø								

```
345 F=VAL(SEG$(L$,1,1))

355 S=VAL(L$)

365 M=VAL(L$)

375 H=VAL(L$)

Change: 210 IF J<>1 THEN 220

220 IF J<>2 THEN 230

270 N=1

330 IF SEG$(A$,I,1)<>":" THEN 410

340 IF N<>0 THEN 350

350 IF N<>1 THEN 360

360 IF N<>2 THEN 370

370 IF N<>3 THEN 380

410 L$=SEG$(A$,I,1)&L$
```

TRS-80 COLOR COMPUTER

Change: 240 LINE INPUT A\$

Toss the Javelin

It's a classic event — and it's right here on your computer screen! Can you change the program to let you make more than one throw each time?

Sample Run

IT'S TIME FOR THE JAVELIN THROW. HIT THE ENTER KEY WHEN YOU'RE READY?

THERE GOES THE JAVELIN!

AND HERE IT COMES BACK DOWN!

Program Listing

10 REM TOSS THE JAVELIN 100 PRINT "IT'S TIME FOR THE JAVELIN THROW." 110 PRINT "HIT THE ENTER KEY WHEN YOU'RE READY"; 120 INPUT X\$ 130 PRINT 140 PRINT "THERE GOES THE JAVELIN!" 150 GOSUB 320 160 GOSUB 280 170 FOR I=18 TO 1 STEP-1 180 PRINT TAB(1*2); CHR\$(47) 190 NEXT I 200 GOSUB 280 210 PRINT "AND HERE IT COMES BACK DOWN!" 220 GOSUB 320 230 PRINT CHR\$(12) 240 FOR I=1 TO 18 250 PRINT TAB(1*2); CHR\$(92) 260 NEXT I 270 END 280 FOR I=1 TO 24 290 PRINT 300 NEXT I 310 RETURN 320 FOR D=1 TO 800 330 NEXT D 340 RETURN

□ If You Have . . .

APPLE II

Change: 110 PRINT "HIT THE RETURN KEY WHEN YOU'RE READY"; 230 HOME

ATARI

Add:	355	DIM X\$(1) FOR H=1 TO R PRINT " ";: NEXT H: RETURN	
Change:	180	PRINT "HIT THE RETURN KEY WHEN YOU'R R=I*2: GOSUB 355: PRINT CHR\$(47) PRINT CHR\$(125)	E READY";
	250	R=I*2: GOSUB 355: PRINT CHR\$(92)	(continued

COMMODORE 64

Change: 110 PRINT "HIT THE RETURN KEY WHEN YOU'RE READY"; 230 PRINT CHR\$(147) 250 PRINT TAB(1*2);CHR\$(109)

COMMODORE VIC-20

Change: 110 PRINT "HIT THE RETURN KEY WHEN YOU'RE READY" 170 FOR I=10 TO 1 STEP -1 230 PRINT CHR\$(147) 240 FOR I=1 TO 10 250 PRINT TAB(I*2);CHR\$(109)

TEXAS INSTRUMENTS 99/4A

Change: 170 FOR I=14 TO 1 STEP-1 230 CALL CLEAR 240 FOR I=1 TO 14 280 FOR I=1 TO 18

TRS-80 COLOR COMPUTER

Change: 170 FOR I=14 TO 1 STEP -1 230 CLS 240 FOR I=1 TO 14

Olympic Translator

There are lots of words that go with the Olympics. This program will let you translate an even dozen of them — into five different languages!

Sample Run

WHAT DOES YOUR OPPONENT CALL SOME FAMILIAR THINGS AT THE OLYMPIC GAMES? USE THIS PROGRAM TO FIND OUT!

- 1 ENGLISH
- 2 SWEDISH
- 3 FRENCH
- 4 ITALIAN
- 5 SPANISH
- 6 GERMAN

SELECT A LANGUAGE BY NUMBER? 3

LANGUAGE SELECTED: FRENCH

1	FIRST
2	SECONE
3	THIRD
4	PRIZE
5	GAME
6	TEAM
7	WIN
8	LOSE
9	RACE
10	RUN
11	JUMP
12	PEACE

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A WORD, ENTER THE CORRECT NUMBER? 7

IN FRENCH, WIN IS GAGNER.

[There's more — when you get to the end of the program, you'll see something like this:]

IN SPANISH, JUMP IS SALTAR.

1	FIRST
2	SECONI
3	THIRD
4	PRIZE
5	GAME
6	TEAM
7	WIN
8	LOSE
9	RACE
10	RUN
11	JUMP
12	PEACE

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A WORD, ENTER THE CORRECT NUMBER? Q

Program Listing

1Ø H	REM OLYMPIC TRANSLATOR
100	PRINT
110	PRINT "WHAT DOES YOUR OPPONENT CALL"
120	PRINT "SOME FAMILIAR THINGS AT THE"
130	PRINT "OLYMPIC GAMES? USE THIS PROGRAM"
140	PRINT "TO FIND OUT!"
150	PRINT
160	PRINT
170	FOR C=1 TO 6
180	
	GOSUB 630
	PRINT TAB(2);C;TAB(5);F\$
210	
	PRINT
	PRINT "SELECT A LANGUAGE BY NUMBER";
240	
	L=VAL(L\$)
260	IF L<1 OR L>6 THEN 230
270	Λ=Γ
280	GOSUB 630
290	PRINT
300	PRINT "LANGUAGE SELECTED: ";F\$

310 PRINT 320 FOR D=1 TO 12 330 Y=6 340 Z = (D*6) - 5350 GOSUB 630 360 PRINT TAB(2); D; TAB(7); WD\$ 370 NEXT D 380 PRINT 390 PRINT "(TO SWITCH LANGUAGES, ENTER ";CHR\$(34);"S"; CHR\$(34) 400 PRINT "--TO QUIT, ENTER "; CHR\$(34); "Q"; CHR\$(34); ")" 410 PRINT "TO TRANSLATE A WORD," 420 PRINT "ENTER THE CORRECT NUMBER"; 430 INPUT CS 440 IF C\$="O" THEN END 450 C=VAL(C\$) 460 IF C\$="S" THEN 160 470 IF C>0 AND C<13 THEN 490 480 GOTO 380 490 PRINT 500 Y=L 510 GOSUB 630 520 PRINT "IN ";F\$;", "; 53Ø Y=6 54Ø Z=(C*6)-5 550 GOSUB 630 560 PRINT WD\$; " IS "; 570 Z = (C*6) - (6-L)580 GOSUB 630 590 PRINT WDS;"." 600 PRINT 610 GOTO 310 620 REM --- READING SUBROUTINE ---630 FOR P=1 TO Y 640 READ F\$ 650 NEXT P 660 FOR Q=1 TO Z 67Ø READ WD\$ 680 NEXT O 690 RESTORE 700 RETURN 710 DATA ENGLISH, SWEDISH, FRENCH, ITALIAN, SPANISH, GERMAN 720 DATA FIRST, FORSTA, PREMIER, PRIMO, PRIMERO, ERSTE 730 DATA SECOND, ANDRA, DEUXIEME, SECONDO, SEGUNDO, ZWEITE 740 DATA THIRD, TREDJE, TROISIEME, TERZO, TERCERO, DRITTE 750 DATA PRIZE, PRIS, PRIX, PREMIO, PREMIO, PREIS 760 DATA GAME, SPEL, JEU, GIUOCO, JUEGO, SPIEL 770 DATA TEAM, LAG, EQUIPE, SQUADRA, EQUIPO, MANNSCHAFT 780 DATA WIN, VINNA, GAGNER, VINCERE, VENCER, GEWINNEN 790 DATA LOSE, FORLORA, PERDRE, PERDERE, PERDER, VERLIEREN 800 DATA RACE, TAVLING, COURSE, CORSA, CARRERA, WETTLAUF 810 DATA RUN, SPRINGA, COURIR, CORRERE, CORRER, RENNEN 820 DATA JUMP, HOPPA, SAUTER, SALTARE, SALTAR, SPRINGEN 830 DATA PEACE, FRED, PAIX, PACE, PAZ, FRIEDEN

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM C\$(1),F\$(11),WD\$(11),L\$(1) 845 FOR R1=1 TO R 855 PRINT " ";:NEXT R1:RETURN

Change: 200 R=2:GOSUB 845:PRINT C;:R=5:GOSUB 845:PRINT F\$ 360 R=2:GOSUB 845:PRINT D;:R=7:GOSUB 845:PRINT WD\$ 450 IF C\$="S" THEN 160 460 IF ASC(C\$) <49 OR ASC(C\$) >57 THEN 420 470 C=VAL(C\$):GOTO 490

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 230 PRINT "SELECT A LANGUAGE BY NUMBER" 420 PRINT "ENTER THE CORRECT NUMBER"

TEXAS INSTRUMENTS 99/4A

Add:		GOTO 490	
Change:	44Ø 45Ø	IF (L<1)+(L>6) THEN 230 IF C\$<>"Q" THEN 450 IF C\$="S" THEN 160 IF (ASC(C\$)<49)+(ASC(C\$)>57) THEN 420	

470 C=VAL(C\$)

TRS-80 COLOR COMPUTER

Delete: 380

Olympic Travel Bureau

It's a long way to Los Angeles from foreign countries! How far exactly? With this program, you'll have the answers in a flash!

Sample Run

OLYMPIC TRAVEL SERVICE MILEAGE FINDER

YOU'RE A FOREIGN ATHLETE. HOW FAR WILL YOU BE FLYING TO THE LOS ANGELES 1984 GAMES?

HIT THE ENTER KEY TO BEGIN?

1 BERLIN 2 BUENOS AIRES 3 CAIRO 4 CALCUTTA 5 CARACAS 6 HONG KONG 7 ISTANBUL 8 LISBON 9 LONDON 10 MANILA 11 MEXICO CITY 12 MONTREAL 13 MOSCOW 14 PARIS 15 RIO DE JANEIRO 16 ROME **17 SHANGHAI** 18 STOCKHOLM **19 SYDNEY** 20 TOYKO

WHERE ARE YOU FLYING FROM? 20

FROM TOYKO TO LOS ANGELES IS 5433 MILES BY AIR.

WANT TO TRY ANOTHER? YES

WHERE ARE YOU FLYING FROM? 3

FROM CAIRO TO LOS ANGELES IS 7520 MILES BY AIR. WANT TO TRY ANOTHER? NO ENJOY YOUR FLIGHT!

Program Listing

10 REM OLYMPIC TRAVEL BUREAU 100 DIM D(20) 110 GOSUB 620 120 PRINT "OLYMPIC TRAVEL SERVICE MILEAGE FINDER" 130 GOSUB 620 140 PRINT 150 PRINT "YOU'RE A FOREIGN ATHLETE." 160 PRINT "HOW FAR WILL YOU BE FLYING" 170 PRINT "TO THE LOS ANGELES 1984 GAMES?" 180 PRINT 190 PRINT "HIT THE ENTER KEY TO BEGIN"; 200 INPUT D\$ 210 PRINT 220 IF R=1 THEN RESTORE 230 PRINT 240 FOR A=1 TO 20 250 READ AS 260 PRINT TAB(5);A;TAB(9);A\$ 270 NEXT A 280 FOR B=1 TO 20 290 READ D(B) 300 NEXT B 310 R=1 320 PRINT 330 PRINT "WHERE ARE YOU FLYING FROM"; 340 INPUT N 350 IF N<1 OR N>20 THEN 220 360 RESTORE 370 FOR C=1 TO N 380 READ AS 390 NEXT C 400 PRINT 410 PRINT "FROM ";A\$;" TO LOS ANGELES" 420 PRINT "IS ";D(N);" MILES BY AIR." 430 PRINT 440 PRINT "WANT TO TRY ANOTHER"; 450 INPUT Y\$ 460 PRINT 470 IF MID\$(Y\$,1,1) <>"N" THEN 220 480 PRINT "ENJOY YOUR FLIGHT!"

490	PRINT
500	END
510	DATA BERLIN, BUENOS AIRES, CAIRO, CALCUTTA
520	DATA CARACAS, HONG KONG, ISTANBUL, LISBON
530	DATA LONDON, MANILA, MEXICO CITY, MONTREAL
540	DATA MOSCOW, PARIS, RIO DE JANEIRO, ROME
550	DATA SHANGHAI, STOCKHOLM, SYDNEY, TOYKO
560	DATA 5724,6170,7520,8090
570	DATA 3632,7195,6783,5621
580	DATA 5382,7261,1589,2427
590	DATA 6003,5588,6331,6732
600	DATA 6438,5454,7530,5433
610	REM LINE SUBROUTINE
620	FOR D=1 TO 37
630	PRINT "=";
640	NEXT D
650	PRINT
660	RETURN

If You Have . . .

APPLE II

Change: 190 PRINT "HIT THE RETURN KEY TO BEGIN";

ATARI

Add: 95 DIM D\$(1),A\$(15),Y\$(3) 261 TB=3:IF A>=10 THEN TB=2 262 GOSUB 675;PRINT A\$ 291 D(B)=DB 675 FOR IX=1 TO TB 685 PRINT " ";:NEXT IX:RETURN

Change: 190 PRINT "HIT THE RETURN KEY TO BEGIN"; 260 TB=5:GOSUB 675:PRINT A; 290 READ DB 470 IF Y\$(1,1)<>"N" THEN 220

COMMODORE 64

Change: 190 PRINT "HIT THE RETURN KEY TO BEGIN";

COMMODORE VIC-20

Delete: 320

Change: 190 PRINT "HIT THE RETURN KEY TO BEGIN" 260 PRINT TAB(3);A;TAB(6);A\$ 330 PRINT "WHERE ARE YOU FLYING FROM" 620 FOR D=1 TO 21

TEXAS INSTRUMENTS 99/4A

Add: 225 RESTORE

Change: 220 IF R<>1 THEN 230 350 IF (N<1)+(N>20) THEN 220 470 IF SEG\$(Y\$,1,1)<>"N" THEN 220 620 FOR E=1 TO 28 640 NEXT E

TRS-80 COLOR COMPUTER

Add: 265 IF A/2=INT(A/2) THEN PRINT TAB(15);A;TAB(19);A\$

Change: 260 IF A/2<>INT(A/2) THEN PRINT A; TAB(4);A\$; 540 DATA MOSCOW, PARIS, TOYKO, ROME 550 DATA SHANGHAI, STOCKHOLM, SYDNEY, RIO DE JANEIRO 590 DATA 6003,5588,5433,6732 600 DATA 6438,5454,7530,6331 620 FOR D=1 TO 31

Phone Home!

Making an international phone call is easy. But it's not so easy to figure out what time it is at home when you're far away. Now you can let your computer figure it out for you!

Sample Run

YOU'RE IN LOS ANGELES. YOU NEED TO PHONE HOME. BUT YOU DON'T WANT TO WAKE ANYONE UP.

WHAT TIME IS IT IN LOS ANGELES? 5:32

AM OR PM? PM

HOW MANY TIME ZONES AWAY IS HOME? 3

IS THAT EAST OR WEST OF LOS ANGELES? EAST

WHEN IT'S 5:32 PM IN LOS ANGELES, THE TIME AT HOME IS 8:32 PM.

RUN

YOU'RE IN LOS ANGELES. YOU NEED TO PHONE HOME. BUT YOU DON'T WANT TO WAKE ANYONE UP.

WHAT TIME IS IT IN LOS ANGELES? 3:22

AM OR PM? PM

HOW MANY TIME ZONES AWAY IS HOME? 5

IS THAT EAST OR WEST OF LOS ANGELES? WEST

WHEN IT'S 3:22 PM IN LOS ANGELES, THE TIME AT HOME IS 10:22 AM.

Program Listing

```
10 REM PHONE HOME!
100 PRINT "YOU'RE IN LOS ANGELES."
110 PRINT "YOU NEED TO PHONE HOME."
120 PRINT "BUT YOU DON'T WANT TO"
130 PRINT "WAKE ANYONE UP."
140 PRINT
150 PRINT "WHAT TIME IS IT IN LOS ANGELES";
160 INPUT T$
170 IF TS="" THEN 150
180 PRINT
190 FOR I=1 TO LEN(T$)
200 IF MID$(T$,I,1)=":" THEN 250
210 IF C>0 THEN 240
220 H$=H$+MID$(T$,I,1)
230 GOTO 270
240 IF C<3 THEN M$=M$+MID$(T$,I,1)
250 C=C+1
260 B=1
270 NEXT I
280 H=VAL(H$)
290 IF H<13 AND H>0 THEN 320
300 H$=""
310 GOTO 140
320 M=VAL(M$)
330 IF M=0 THEN M$="00"
340 IF M>=0 AND M<60 THEN 370
350 M$=""
360 GOTO 140
370 PRINT "AM OR PM";
38Ø INPUT D$
390 IF MID$(D$,1,1)<>"A" AND MID$(D$,1,1)<>"P" THEN 370
400 PRINT
410 PRINT "HOW MANY TIME ZONES AWAY IS HOME";
420 INPUT A$
430 IF A$="" THEN 410
440 A=VAL(A$)
450 PRINT
460 IF A>12 OR A<0 THEN 410
470 PRINT "IS THAT EAST OR WEST OF LOS ANGELES";
480 INPUT ES
490 PRINT
500 Z$=MID$(E$,1,1)
510 IF Z$<>"E" AND Z$<>"W" THEN 470
520 IF ZS="E" THEN N=H+A
530 IF ZS="W" THEN N=H-A
540 PRINT "WHEN IT'S ";H$;":";M$;" ";D$;" IN LOS ANGELES,"
550 IF N<13 AND N>0 THEN 630
560 IF N<1 THEN 600
570 N=N-12
580 IF H=12 AND N<>12 THEN 700
590 GOTO 660
600 N=N+12
```

```
610 IF N=12 AND H<>12 THEN 700
620 GOTO 660
630 IF N=12 AND H<>12 THEN 660
640 IF H=12 AND Z$="W" THEN 660
650 GOTO 700
660 IF D$="PM" THEN 690
670 D$="PM"
680 GOTO 700
690 D$="AM"
700 PRINT "THE TIME AT HOME IS ";
710 PRINT N;":";
720 PRINT M$;" ";D$;"."
730 PRINT
```

If You Have . . .

APPLE II

Add: 155 PRINT "(TIME MUST BE ENCLOSED IN QUOTES)"

ATARI

Add: 91 DIM T\$(5),H\$(5),M\$(3),D\$(2),A\$(2) 92 DIM E\$(4),Z\$(1)

Change: 200 IF T\$(I,I)=":" THEN 250 220 H\$(I)=T\$(I,I) 240 IF C<3 THEN M\$(C)=T\$(I,I) 390 IF D\$(1,1)<>"A" AND D\$(1,1)<>"P" THEN 370 500 Z\$=E\$(1,1)

COMMODORE 64

Add: 155 PRINT "SEMICOLON TO SEPARATE HOURS AND MINUTES)

Change: 150 PRINT "WHAT TIME IS IT IN LOS ANGELES (USE" 200 IF MID\$(T\$,I,1)=";" THEN 250

COMMODORE VIC-20

Add: 155 PRINT "SEMICOLON TO SEPARATE HOURS AND MINUTES)

Change: 150 PRINT "WHAT TIME IS IT IN LOS ANGELES (USE" 200 IF MID\$(T\$,I,1)=";" THEN 250 370 PRINT "AM OR PM" 410 PRINT "HOW MANY TIME ZONES AWAY IS HOME" 470 PRINT "IS THAT EAST OR WEST OF LOS ANGELES"

TEXAS INSTRUMENTS 99/4A

Add:	335 525	M\$=M\$&SEG\$(T\$,I,1) M\$="ØØ" N=H+A N=H-A
Change:	22Ø 24Ø 29Ø 33Ø 34Ø	<pre>IF SEG\$(T\$,I,1)=":" THEN 250 H\$=H\$&SEG\$(T\$,I,1) IF C>=3 THEN 250 IF (H<13)*(H>0) THEN 320 IF M<>0 THEN 340 IF (M>=0)*(M<60) THEN 370 IF (SEG\$(D\$,1,1)<>"A")*(SEG\$(D\$,1,1)<>"P") THEN 370</pre>
	500 510 520 530 550	IF (A>l2)+(A<0) THEN 410 Z\$=SEG\$(E\$,1,1) IF (Z\$<>"E")*(Z\$<>"W") THEN 470 IF Z\$<>"E" THEN 530 IF Z\$<>"W" THEN 540 IF (N <l3)*(n>0) THEN 630</l3)*(n>
	610	IF (H=12)*(N<>12) THEN 700 IF (N=12)*(H<>12) THEN 700 IF (N=12)*(H<>12) THEN 660 IF (H=12)*(Z\$="W") THEN 660

TRS-80 COLOR COMPUTER

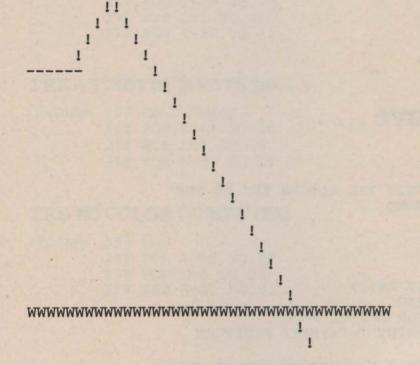
Add: 160 LINE INPUT T\$

Silver Medal Diver

How graceful! The silver medalist displays superb form!

Sample Run

THE DIVER IS ON THE BOARD! HIT THE ENTER KEY TO SEE A SILVER MEDAL DIVE?



Program Listing

10 REM SILVER MEDAL DIVER 100 PRINT 110 PRINT "THE DIVER IS ON THE BOARD" 120 PRINT "HIT THE ENTER KEY TO SEE" 130 PRINT "A SILVER MEDAL DIVE"; 140 INPUT X\$ 150 PRINT CHR\$(12)

```
160 PRINT TAB(9); "!!"
170 PRINT TAB(8); "!"; TAB(11);"!"
180 PRINT TAB(7); "!"; TAB(12);"!"
190 PRINT TAB(6); "!"; TAB(13);"!"
200 FOR I=1 TO 6
210 PRINT "-";
220 NEXT I
230 PRINT TAB(14);"!"
240 FOR I=15 TO 28
250 PRINT TAB(I);"!"
260 NEXT I
270 FOR L=1 TO 38
280 PRINT "W";
290 NEXT L
300 PRINT
310 FOR I=29 TO 30
320 PRINT TAB(I);"!"
330 NEXT I
```

If You Have . . .

APPLE II

Change: 120 "HIT THE RETURN KEY TO SEE" 150 HOME

ATARI

331 345	DIM X\$(1) END FOR A=1 TO R FOR A=1 TO R PRINT " ";:NEXT A:RETURN
150 160 170 180 190 230 240 250 270 310	<pre>9 "HIT THE RETURN KEY TO SEE" 9 PRINT CHR\$(125) 9 R=9:GOSUB 345:PRINT "!!" 9 R=8:GOSUB 345:PRINT "!";:R=2:GOSUB 345:PRINT "!" 9 R=7:GOSUB 345:PRINT "!";:R=4:GOSUB 345:PRINT "!" 9 R=6:GOSUB 345:PRINT "!";:R=6:GOSUB 345:PRINT "!" 9 R=8:GOSUB 345:PRINT "!";R=6:GOSUB 345:PRINT "!" 9 FOR I=15 TO 27 9 R=I:GOSUB 345:PRINT "!" 9 FOR L=1 TO 36 9 FOR I=28 TO 29 9 R=I:GOSUB 345:PRINT "!"</pre>

COMMODORE 64

Change: 120 PRINT "HIT THE RETURN KEY TO SEE" 150 PRINT CHR\$(147)

COMMODORE VIC-20

Change: 120 PRINT "HIT THE RETURN KEY TO SEE" 150 PRINT CHR\$(147) 160 PRINT TAB(7); "!!" 170 PRINT TAB(6); "!"; TAB(9);"!" 180 PRINT TAB(5); "!"; TAB(10);"!" 190 PRINT TAB(4); "!"; TAB(11);"!" 200 FOR I=1 TO 4 230 PRINT TAB(12);"!" 240 FOR I=13 TO 19 270 FOR L=1 TO 21 310 FOR I=20 TO 21

TEXAS INSTRUMENTS 99/4A

Change:	150	CALL CLEAR
	240	FOR I=15 TO 26
	270	FOR L=1 TO 28
	310	FOR I=27 TO 28

TRS-80 COLOR COMPUTER

Change:	150	CLS	
Ŭ	240	FOR	I=15 TO 20
	270	FOR	L=1 TO 31
	310	FOR	I=21 TO 22

Olympic Marathon

Outdistance the pack and you may set a new world's record. But lag behind, and you'll be lucky to pick up a bronze medal. Good luck, marathoner!

Sample Run

THIS IS THE MARATHON! IT'S A RACE OF 26 MILES AND 285 YARDS.

EVERY TIME YOU GET A MATH PROBLEM RIGHT YOU MOVE AHEAD ONE MILE.

WRONG ANSWERS SLOW YOU DOWN.

AND THE GOING GETS HARDER AS THE RACE GETS LONGER.

WHAT'S YOUR FULL NAME? ROCK RUNNER

HOW MANY TIMES HAVE YOU RUN THE MARATHON? 20

THE MARATHON BEGINS!

AS THE RACE STARTS, ROCK RUNNER IS IN THE LEAD.

1 + 5 = ?6

RIGHT!

AFTER 1 MILE ROCK RUNNER IS IN THE LEAD.

11 + 10 = ? 21

RIGHT!

AFTER 2 MILES ROCK RUNNER IS IN THE LEAD.

5 X 9 = ? 45

RIGHT!

AFTER 3 MILES ROCK RUNNER IS IN THE LEAD.

84

3 + 11 = ? 14

RIGHT!

AFTER 4 MILES ROCK RUNNER IS IN THE LEAD.

2 + 9 = ? 18

WRONG!

2 + 9 = 11

7 / 7 = ? 1

RIGHT!

AFTER 5 MILES ROCK RUNNER IS 49 RUNNERS BEHIND THE LEADER.

8 - 12 = ? -4

RIGHT!

AFTER 6 MILES ROCK RUNNER IS 43 RUNNERS BEHIND THE LEADER.

10 + 5 = ? 15

RIGHT!

[[There's more--when you get to the end of the program, you'll see something like this:]]

19 / 19 = ? 1

RIGHT!

AS THE RACE ENDS, ROCK RUNNER IS IN FIRST PLACE!

CONGRATULATIONS!

THE TIME FOR ROCK RUNNER WAS: 2 HOURS, 14 MINUTES AND 11 SECONDS.

Program Listing

```
10 REM OLYMPIC MARATHON
100 PRINT "THIS IS THE MARATHON!"
110 PRINT "IT'S A RACE OF 26 MILES AND 285 YARDS."
120 PRINT
130 PRINT "EVERY TIME YOU GET A MATH PROBLEM RIGHT"
140 PRINT "YOU MOVE AHEAD ONE MILE."
150 PRINT
160 PRINT "WRONG ANSWERS SLOW YOU DOWN."
170 PRINT
180 PRINT "AND THE GOING GETS HARDER"
190 PRINT "AS THE RACE GETS LONGER."
200 PRINT
210 PRINT "WHAT'S YOUR FULL NAME";
220 INPUT N$
230 IF NS="" THEN 210
240 PRINT
250 PRINT "HOW MANY TIMES HAVE YOU RUN"
260 PRINT "THE MARATHON";
270 INPUT R
280 RANDOMIZE R
290 PRINT
300 PRINT "THE MARATHON BEGINS!"
310 PRINT
320 PRINT "AS THE RACE STARTS,"
330 PRINT N$;" IS IN THE LEAD."
340 M=1
350 C=INT(RND(1)*4)+1
36Ø A=INT(RND(1)*13)+INT(M/3)
37Ø B=INT(RND(1)*13)+INT(M/3)
380 IF C<>4 THEN 410
390 IF B=0 THEN 360
400 IF A/B<>INT(A/B) THEN 360
410 IF C=1 THEN OP$=" + "
420 IF C=2 THEN OP$=" - "
430 IF C=3 THEN OP$=" X "
440 PRINT
450 IF C=4 THEN OP$=" / "
460 PRINT A; OP$; B; "= ";
470 INPUT Z$
480 IF Z$="" THEN 460
490 Z=VAL(Z$)
500 IF C=1 THEN R=A+B
510 IF C=2 THEN R=A-B
520 IF C=3 THEN R=A*B
530 IF C=4 THEN R=A/B
540 IF R<>Z THEN 580
550 PRINT "RIGHT!"
560 T = T + 300 - (5 * M)
570 GOTO 630
580 PRINT "WRONG!"
590 PRINT A; OP$; B; "= "; R
600 PRINT
```

```
610 T=T+300+26-M
620 GOTO 350
630 PRINT
640 LT=M*300
650 IF M>26 THEN 800
660 PRINT "AFTER ";M;
670 IF M<>1 THEN 700
680 PRINT " MILE "
690 GOTO 710
700 PRINT " MILES "
710 IF T<=LT THEN 750
720 PRINT N$;" IS "; INT((T-LT)/5);" RUNNERS"
730 PRINT "BEHIND THE LEADER."
740 GOTO 760
750 PRINT N$;" IS IN THE LEAD."
760 PRINT
770 PRINT
780 M=M+1
790 GOTO 350
800 PRINT "AS THE RACE ENDS,"
810 IF LT>=T THEN 850
820 PRINT N$;" COMES IN AFTER"
830 PRINT INT((T-LT)/5);" OTHER RUNNERS."
840 GOTO 870
850 PRINT N$;" IS IN FIRST PLACE!"
860 PRINT "CONGRATULATIONS!"
870 PRINT "THE TIME FOR ";N$;" WAS:"
880 H=INT(T/3600)
890 Z=INT((T-(H*3600))/60)
900 \text{ S}=T-(H*3600)-(Z*60)
910 PRINT H; " HOURS, "; Z; " MINUTES AND "; S; " SECONDS."
920 END
```

☐ If You Have . . .

APPLE II

Delete: 280

ATARI

Delete:	280
Add:	95 DIM N\$(22),Z\$(5),OP\$(3)
Change:	350 C=INT(RND(0)*4)+1

360 A=INT(RND(0)*13)+INT(M/3) 370 B=INT(RND(0)*13)+INT(M/3)

COMMODORE 64

Delete: 280

Change:	350	$C=INT(RND(\emptyset)*4)+1$
	360	$A=INT(RND(\emptyset)*13)+INT(M/3)$
	370	$B=INT(RND(\emptyset)*13)+INT(M/3)$

COMMODORE VIC-20

Delete: 280

Change: 210 PRINT "WHAT'S YOUR FULL NAME" 260 PRINT "THE MARATHON" 350 C=INT(RND(0)*4)+1 360 A=INT(RND(0)*13)+INT(M/3) 370 B=INT(RND(0)*13)+INT(M/3) 460 PRINT A;OP\$;B;"= "

TEXAS INSTRUMENTS 99/4A

Add:	415	OPS	5="	+		
	425					
	435					
	455				п	
	505					
	515	R=A	-B			
	525	R=A	*B			
	535	R=A	A/B			
Change:	350	C=I	NT	(RN	ID*4).	+1
	360	A=I	NT	RN	ID*13) + INT(M/3)
	370	B=I	NT (RN	ID*13) + INT(M/3)
	410	IF	C<>	>1	THEN	420
	420	IF	C<>	>2	THEN	430
	430	IF	C<>	>3	THEN	440
	450	IF	C<>	>4	THEN	460
	500	IF	C<>	>1	THEN	510
	510	IF	C<>	>2	THEN	520
	520	IF	C<>	>3	THEN	530
	530	IF	C<>	>4	THEN	540

TRS-80 COLOR COMPUTER

Delete: 280

Change:	35Ø	C=RND(4)
U	360	A=RND(12)+INT(M/3)
	370	B=RND(12)+INT(M/3)

Medal Grapher

Which country has earned the most medals overall? Which country is mining the silver, and which is getting the gold? Now you'll be able to compare four countries' records at a glance. This program automatically puts the teams with the most medals at the top — and the ones with the fewest at the bottom. It makes a gorgeous graph of each country's medal record, too!

Sample Run

WANT TO COMPARE DIFFERENT COUNTRIES' RECORDS? THIS MAKES IT EASY TO PRINT A GRAPH OF MEDALS FOR FOUR DIFFERENT COUNTRIES.

ENTER THE NAME OF COUNTRY NUMBER 1? HUNGARY HOW MANY GOLD MEDALS? 4 HOW MANY SILVER MEDALS? 5 HOW MANY BRONZE MEDALS? 12

ENTER THE NAME OF COUNTRY NUMBER 2? ITALY HOW MANY GOLD MEDALS? 2 HOW MANY SILVER MEDALS? 7 HOW MANY BRONZE MEDALS? 4

ENTER THE NAME OF COUNTRY NUMBER 3? JAPAN HOW MANY GOLD MEDALS? 9 HOW MANY SILVER MEDALS? 6 HOW MANY BRONZE MEDALS? 10

ENTER THE NAME OF COUNTRY NUMBER 4? UNITED STATES HOW MANY GOLD MEDALS? 34 HOW MANY SILVER MEDALS? 35 HOW MANY BRONZE MEDALS? 25

JAPAN -- 25 TOTAL MEDALS GGGGGGGGGG SSSSSS BBBBBBBBBB

HUNGARY -- 21 TOTAL MEDALS GGGG SSSSS BBBBBBBBBBBBBBB

(continued)

89

ITALY -- 13 TOTAL MEDALS GG SSSSSSS BBBB

Program Listing

```
10 REM MEDAL GRAPHER
100 PRINT
110 PRINT "WANT TO COMPARE DIFFERENT COUNTRIES'"
120 PRINT "RECORDS? THIS MAKES IT EASY TO"
130 PRINT "PRINT A GRAPH OF MEDALS FOR FOUR"
140 PRINT "DIFFERENT COUNTRIES."
150 PRINT
160 FOR I=1 TO 4
170 PRINT "ENTER THE NAME OF COUNTRY NUMBER "; I; ":"
180 IF I=1 THEN INPUT F$
190 IF I=1 AND F$="" THEN 170
200 IF I=2 THEN INPUT S$
210 IF I=2 AND S$="" THEN 170
220 IF I=3 THEN INPUT T$
230 IF I=3 AND T$="" THEN 170
240 IF I=4 THEN INPUT L$
250 IF I=4 AND L$="" THEN 170
260 PRINT "HOW MANY GOLD MEDALS";
270 INPUT G$
280 IF GS="" THEN 260
290 G(I) = VAL(G$)
300 PRINT "HOW MANY SILVER MEDALS";
310 INPUT SM$
320 IF SM$="" THEN 300
330 S(I)=VAL(SM$)
340 PRINT "HOW MANY BRONZE MEDALS";
350 INPUT B$
360 IF B$="" THEN 340
37Ø B(I)=VAL(B$)
380 PRINT
390 NEXT I
400 GOSUB 640
410 FOR I=1 TO 4
420 IF C(I)=1 THEN PRINT F$;
430 IF C(I)=2 THEN PRINT S$;
440 IF C(I)=3 THEN PRINT T$;
450 IF C(I)=4 THEN PRINT L$;
460 PRINT " -- "; P(I); " TOTAL MEDALS"
470 FOR J=1 TO G(C(I))
480 PRINT "G";
490 NEXT J
500 PRINT
510 FOR J=1 TO S(C(I))
520 PRINT "S";
```

```
530 NEXT J
540 PRINT
550 FOR J=1 TO B(C(I))
560 PRINT "B";
570 NEXT J
580 IF I<4 THEN PRINT
590 PRINT
600 C=C+1
610 NEXT I
620 PRINT
630 END
640 FOR I=1 TO 4
650 P(I) = G(I) + S(I) + B(I)
660 C(I)=I
670 NEXT I
680 FOR I=1 TO 3
690 FOR J=I+1 TO 4
700 IF P(I)>P(J) THEN 770
710 T=P(I)
720 P(I) = P(J)
730 P(J)=T
740 T=C(I)
750 C(I)=C(J)
760 C(J)=T
770 NEXT J
780 NEXT I
790 RETURN
```

If You Have . . .

APPLE II

Add: 385 PRINT

ATARI

Add: 91 DIM F\$(17),S\$(17),T\$(17),L\$(17),G\$(3),SM\$(3), B\$(3) 92 DIM G(4),S(4),B(4),C(4),P(4)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change:	260	PRINT	"HOW	MANY	GOLD MH	EDALS"	
U	300	PRINT	"HOW	MANY	SILVER	MEDALS"	
	340	PRINT	"HOW	MANY	BRONZE	MEDALS"	(continued)

91

TEXAS INSTRUMENTS 99/4A

Add:	185	INPUT F\$
	205	INPUT S\$
	225	INPUT T\$
	245	INPUT L\$
	425	PRINT F\$
	435	PRINT S\$
	445	PRINT T\$
	455	PRINT L\$
	585	PRINT
Change:	180	
	190	IF F\$="" THEN 170
		IF I<>2 THEN 210
	210	IF S\$="" THEN 170
		IF I<>3 THEN 240
	230	IF T\$="" THEN 170
	240	IF I<>4 THEN 260
	250	IF L\$="" THEN 170
	420	IF C(I) <>1 THEN 430
	430	IF C(I) <>2 THEN 440
	440	IF C(I) <>3 THEN 450
	450	IF $C(I) <> 4$ THEN 460
		IF I>=4 THEN 590
	600	D=D+1

TRS-80 COLOR COMPUTER

No Changes Required

Pentathlons

There's not just one pentathlon in the Olympic Games — there are two! Each one has five events, but they're very different. If you know the answers here, you're a true Olympic expert!

Sample Run

THERE ARE TWO OLYMPIC EVENTS WITH ALMOST THE SAME NAME.

ONE IS A COMPETITION FOR WOMEN: THE PENTATHLON.

THE OTHER IS A COMPETITION FOR MEN: THE MODERN PENTATHLON.

EACH HAS FIVE EVENTS. WIN OUR PENTATHLON BY TELLING WHICH ARE WHICH.

IS LONG JUMP A MODERN PENTATHLON EVENT OR A PENTATHLON EVENT--ENTER M OR P? P RIGHT! THAT MAKES 1 RIGHT.

IS RIDING A MODERN PENTATHLON EVENT OR A PENTATHLON EVENT--ENTER M OR P? M RIGHT! THAT MAKES 2 RIGHT.

IS FENCING A MODERN PENTATHLON EVENT OR A PENTATHLON EVENT--ENTER M OR P? M RIGHT! THAT MAKES 3 RIGHT.

IS 100 METER HURDLES A MODERN PENTATHLON EVENT OR A PENTATHLON EVENT--ENTER M OR P? M SORRY! THAT'S A PENTATHLON EVENT. THAT'S 1 WRONG.

[There's more — when you get to the end of the program, you'll see something like this:]

IS 200 METER RUN A MODERN PENTATHLON EVENT OR A PENTATHLON EVENT--ENTER M OR P? P RIGHT! THAT MAKES 9 RIGHT.

YOU GOT 9 RIGHT AND 1 WRONG. YOU'LL HAVE TO SETTLE FOR A SILVER MEDAL.

Program Listing

```
10 REM PENTATHLONS
100 PRINT "THERE ARE TWO OLYMPIC EVENTS WITH"
110 PRINT "ALMOST THE SAME NAME."
120 PRINT
130 PRINT "ONE IS A COMPETITION"
140 PRINT "FOR WOMEN: THE PENTATHLON."
150 PRINT
160 PRINT "THE OTHER IS A COMPETITION"
170 PRINT "FOR MEN: THE MODERN PENTATHLON."
180 PRINT
190 PRINT "EACH HAS FIVE EVENTS."
200 PRINT "WIN OUR PENTATHLON"
210 PRINT "BY TELLING WHICH ARE WHICH."
220 FOR I=1 TO 10
230 GOSUB 580
240 PRINT
250 PRINT "IS ";E$
260 PRINT "A MODERN PENTATHLON EVENT"
270 PRINT "OR A PENTATHLON EVENT--"
280 PRINT "ENTER M OR P";
290 INPUT AS
300 IF A$<>"P" AND A$<>"M" THEN 280
310 IF A$=P$ THEN 400
320 PRINT "SORRY!"
330 PRINT "THAT'S A ";
340 IF P$="M" THEN PRINT "MODERN "
350 PRINT "PENTATHLON EVENT."
360 W=W+1
370 PRINT
380 PRINT "THAT'S ";W;" WRONG."
390 GOTO 430
```

400 PRINT "RIGHT!" 410 R=R+1 420 PRINT "THAT MAKES ";R;" RIGHT." 430 NEXT I 440 PRINT 450 IF R=10 THEN 550 460 PRINT "YOU GOT ";R;" RIGHT" 470 PRINT "AND ";W;" WRONG." 480 IF R<7 THEN PRINT "MAYBE YOU SHOULD WATCH" 490 IF R<7 THEN PRINT "THE OLYMPICS ON TV." 500 IF R=7 THEN PRINT "TRY AGAIN IN FOUR YEARS." 510 IF R>7 AND R<10 THEN PRINT "YOU'LL HAVE TO SETTLE FOR A" 520 IF R=8 THEN PRINT " BRONZE MEDAL." 530 IF R=9 THEN PRINT " SILVER MEDAL." 540 END 550 PRINT "A PERFECT SCORE!" 560 PRINT "YOU WIN THE GOLD MEDAL!" 570 END 580 FOR K=1 TO I 590 READ P\$ 600 NEXT K 610 FOR L=1 TO 10 620 READ E\$ 630 NEXT L 640 RESTORE 650 RETURN 660 DATA P,M,M,P,M,M,P,P,M,P 670 DATA LONG JUMP, RIDING, FENCING, 100 METER HURDLES 680 DATA CROSS-COUNTRY RUN, SHOOTING, HIGH JUMP 690 DATA SHOT PUT,300 METER SWIMMING,200 METER RUN

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM E\$(20), A\$(1), P\$(20)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Delete: 120

Change: 280 PRINT "ENTER M OR P"

TEXAS INSTRUMENTS 99/4A

Add:	345	PRINT "MODERN "
	485	PRINT "MAYBE YOU SHOULD WATCH."
	505	PRINT "TRY AGAIN IN FOUR YEARS."
	515	PRINT "YOU'LL HAVE TO SETTLE FOR A"
	525	PRINT " BRONZE MEDAL."
	535	PRINT " SILVER MEDAL."
Change:		IF (A\$<>"P")*(A\$<>"M") THEN 280
	340	IF P\$<>"M" THEN 350
		IF R>6 THEN 500
	490	PRINT "THE OLYMPICS ON TV."
	500	IF R<>7 THEN 510
	510	IF $(R \le 7) + (R \ge 10)$ THEN 520
	520	IF R<>8 THEN 530
	530	IF R<>9 THEN 540

TRS-80 COLOR COMPUTER

Delete: 150

Change: 100 PRINT "THERE ARE TWO OLYMPIC EVENTS" 110 PRINT "WITH ALMOST THE SAME NAME."

Track and Field Record Book — Men

Want the men's Olympic track and field records at your fingertips? This program will give you all the current records — like lightning! This program includes records set at the 1980 Olympics. To keep your program up to date in 1984, just change the proper DATA statements. But be sure your new DATA statements have exactly the same number of commas as the old ones — otherwise, you'll set a record for wrong answers!

Sample Run

=== OLYMPIC TRACK AND FIELD RECORDS ===

1	100-M DASH
3	400-M DASH
5	1500-M RUN
7	10000-M RUN
9	110-M HURDLES
11	3000-M STPLCHS
13	50000-M WALK
15	1600-M RELAY
17	LONG JUMP
19	POLE VAULT
	DISCUS
23	HAMMER THROW

2	200-M DASH
4	800-M RUN
6	5000-M RUN
8	MARATHON
10	400-M HURDLES
12	20000-M WALK
14	400-M RELAY
16	HIGH JUMP
18	TRIPLE JUMP
2Ø	SHOT PUT
22	JAVELIN
24	DECATHLON

TO SEE THE CURRENT OLYMPIC RECORD, ENTER THE NUMBER OF THE EVENT? 16

======= OLYMPIC RECORD BOOK ========

EVENT: HIGH JUMP

YEAR: 1980

RECORD HOLDER: GERD WESSIG

COUNTRY: EAST GERMANY

OLYMPIC RECORD: 7 FT 8-3/4 IN

97

WANT TO LOOK UP ANOTHER RECORD? YES

TO SEE THE CURRENT OLYMPIC RECORD, ENTER THE NUMBER OF THE EVENT? 1

======= OLYMPIC RECORD BOOK =======

EVENT: 100-METER DASH

YEAR: 1968

RECORD HOLDER: JAMES HINES

COUNTRY: USA

OLYMPIC RECORD: 9.9 SEC

WANT TO LOOK UP ANOTHER RECORD? NO

Program Listing

10 REM TRACK AND FIELD RECORD BOOK - MEN
100 PRINT CHR\$(12)
110 PRINT "=== OLYMPIC TRACK AND FIELD RECORDS ==="
120 PRINT
130 FOR C=1 TO 24 STEP 2
140 R=C
150 S=5
160 GOSUB 650
170 PRINT C;TAB(5);R1\$;
180 R=C+1
190 GOSUB 650
200 PRINT TAB(20);C+1;TAB(24);R1\$
210 NEXT C
220 PRINT
230 GOSUB 570
240 PRINT
250 PRINT "TO SEE THE CURRENT OLYMPIC RECORD,"
260 PRINT "ENTER THE NUMBER OF THE EVENT";
270 INPUT N\$
280 N=VAL(N\$)
290 IF N<1 OR N>24 THEN 250
300 PRINT CHR\$(12)

310 PRINT "======= OLYMPIC RECORD BOOK ========" 320 PRINT 330 R=N 340 GOSUB 650 350 FOR'F=1 TO 6 360 IF MID\$(R1\$,F,2)<>"-M" THEN 380 370 R1\$=MID\$(R1\$,1,F+1)+"ETER"+MID\$(R1\$,F+2,LEN(R1\$)-F) 380 NEXT F 390 IF N<>11 THEN 410 400 R1\$="3000-METER STEEPLECHASE" 410 PRINT "EVENT: ";R1\$ 420 PRINT 430 PRINT "YEAR: ";R2\$ 440 PRINT 450 PRINT "RECORD HOLDER: ";R3\$ 460 PRINT 470 PRINT "COUNTRY: ";R4\$ 480 PRINT 490 PRINT "OLYMPIC RECORD: ";R5\$ 500 PRINT 510 GOSUB 570 520 PRINT "WANT TO LOOK UP ANOTHER RECORD"; 530 INPUT YS 540 IF MID\$(Y\$,1,1)<>"N" THEN 100 550 END 560 REM --- LINE AND SPACE SUBROUTINE ---570 FOR F=1 TO 39 580 PRINT "="; 590 NEXT F 600 FOR G=1 TO 3 610 PRINT 620 NEXT G 630 RETURN 640 REM --- READING SUBROUTINE ---650 FOR O=1 TO R 660 READ R1\$,R2\$,R3\$,R4\$,R5\$ 670 NEXT O 68Ø RESTORE 690 RETURN 700 DATA 100-M DASH, 1968, JAMES HINES, USA, 9.9 SEC 710 DATA 200-M DASH, 1968, TOMMIE SMITH, USA, 19.8 SEC 720 DATA 400-M DASH, 1968, LEE EVANS, USA, 43.8 SEC 730 DATA 800-M RUN, 1976, ALBERTO JUANTORENA, CUBA, 1 MIN 43.5 SEC 740 DATA 1500-M RUN, 1968, KIPCHOGE KEINO, KENYA, 3 MIN 34.9 SEC 750 DATA 5000-M RUN, 1980, MIRUTS YIFTER, ETHIOPIA, 13 MIN 21 SEC 760 DATA 10000-M RUN, 1972, LASSE VIREN, FINLAND, 27 MIN 38.4 SEC 770 DATA MARATHON, 1976, WALTER CIERPINSKI, EAST GERMANY, 2 HRS 9 MIN 55 SEC 780 DATA 110-M HURDLES, 1972, RODNEY MILBURN, USA, 13.24 SEC 790 DATA 400-M HURDLES, 1976, EDWIN MOSES, USA, 47.6 SEC (continued)

- 800 DATA 3000-M STPLCHS, 1976, ANDERS GARDERUD, SWEDEN, 8 MIN 8.02 SEC
- 810 DATA 20000-M WALK,1980,MAURIZIO DAMILIANO,ITALY,1 HR 23 MIN 35.5 SEC
- 820 DATA 50000-M WALK,1980,HARTWIG GAUDER,EAST GERMANY, 3 HRS 49 MIN 24 SEC
- 830 DATA 400-M RELAY, 1972, (TEAM), USA, 38.19 SEC
- 840 DATA 1600-M RELAY, 1968, (TEAM), USA, 2 MIN 56.1 SEC
- 850 DATA HIGH JUMP,1980,GERD WESSIG,EAST GERMANY,7 FT 8-3/4 IN
- 860 DATA LONG JUMP, 1968, BOB BEAMON, USA, 29 FT 2-1/2 IN
- 870 DATA TRIPLE JUMP, 1968, VIKTOR SANEYEV, USSR, 57 FT 3/4 IN
- 880 DATA POLE VAULT,1980,WLADYSLAW KOZAKIEWICZ,POLAND,18 FT 11-1/2 IN
- 890 DATA SHOT PUT, 1980, VLADIMIR KISELYOV, USSR, 70 FT 1/2 IN
- 900 DATA DISCUS, 1976, MAC WILKINS, USA, 221 FT 5 IN
- 910 DATA JAVELIN, 1976, MIKLOS NEMETH, HUNGARY, 310 FT 4 IN
- 920 DATA HAMMER THROW, 1980, YURI SEDYKH, USSR, 268 FT 4-1/2 IN
- 930 DATA DECATHLON, 1976, BRUCE JENNER, USA, 8618 PTS

If You Have . .

APPLE II

Change: 100 HOME 300 HOME

ATARI

Add:	91	DIM R1\$(25),R2\$(4),R3\$(22),R4\$(17),R5\$(22)
	169	DIM N\$(2),Y\$(3),R1A\$(11) IDX=3:GOSUB 945
		IF $C \ge 10$ THEN IDX=2
		GOSUB 945:PRINT R1\$;
		IDX=(16-(LEN(R1\$))):GOSUB 945
	201	IF C+1>=10 THEN IDX=2
		GOSUB 945:PRINT R1\$
		IF N=11 THEN 390
	373	PRINT "EVENT: ";R1\$; "ETER";R1A\$
		GOTO 420
		PRINT "EVENT: ";R1\$
		GOTO 420
		FOR A=1 TO IDX
	900	PRINT " ";:NEXT A:RETURN
hange:	100	PRINT CHR\$(125)
		PRINT C;
		PRINT C+1;:IDX=3

C

300 PRINT CHR\$(125) 360 IF Rl\$(F,F+1) <> "-M" THEN 380 370 RlA\$=Rl\$(F+2,LEN(Rl\$)):Rl\$=Rl\$(1,F+1) 380 NEXT F 540 IF Y\$(1,1) <> "N" THEN 100 570 FOR F=1 TO 37 900 DATA DISCUS ,1976,MAC WILKINS,USA,221 FT 5 IN

COMMODORE 64

Change: 100 PRINT CHR\$(147) 300 PRINT CHR\$(147)

COMMODORE VIC-20

Add: 205 IF C=13 THEN PRINT "HIT THE RETURN KEY TO SEE OTHER RECORDS" 206 IF C=13 THEN INPUT D\$

Change: 100 PRINT CHR\$(147) 170 PRINT C;TAB(5);R1\$ 200 PRINT C+1;TAB(5);R1\$ 260 PRINT "ENTER THE NUMBER OF THE EVENT" 300 PRINT CHR\$(147) 310 PRINT "=OLYMPIC RECORD BOOK=" 520 PRINT "WANT TO LOOK UP ANOTHER RECORD" 570 FOR F=1 TO 21

TEXAS INSTRUMENTS 99/4A

Delete: 600, 610, 620, 800 Add: 815 DATA 1 HR 23 MIN 35.5 SEC 825 DATA 3 HRS 49 MIN 24 SEC 945 DATA 3000-M STPLCHS, 1976, ANDERS GARDERUD, SWEDEN 946 DATA 8 MIN 8.02 SEC Change: 100 CALL CLEAR 200 PRINT TAB(15);C+1;TAB(19);R1\$ 290 IF (N<1)+(N>24) THEN 250 300 CALL CLEAR 360 IF SEG\$(R1\$,F,2)<>"-M" THEN 380 370 R1\$=SEG\$(R1\$,1,F+1)&"ETER"&SEG\$(R1\$,F+2, LEN(R1\$) - F)540 IF SEG\$(Y\$,1,1)<>"N" THEN 100 570 FOR F=1 TO 28 760 DATA 10000-M RN, 1972, LASSE VIREN, FINLAND, 27 MIN 38.4 SEC 780 DATA 110-M HRDL, 1972, RODNEY MILBURN, USA, 13.24 SEC 790 DATA 400-M HRDL, 1976, EDWIN MOSES, USA, 47.6 SEC (continued)

- 810 DATA 20000-M WK, 1980, MAURIZIO DAMILIANO, ITALY
- 820 DATA 50000-M WK, 1980, HARTWIG GAUDER, EAST GERMANY
 - 830 DATA 400-M RLY,1972,(TEAM),USA,38.19 SEC
 - 840 DATA 1600-M RLY, 1968, (TEAM), USA, 2 MIN 56.1 SEC
 - 870 DATA TRPL JUMP, 1968, VIKTOR SANEYEV, USSR, 57 FT 3/4 IN
 - 920 DATA HMER THROW, 1980, YURI SEDYKH, USSR, 268 FT 4-1/2 IN

TRS-80 COLOR COMPUTER

Delete: 220, 2	40, 61	00, 6	510, (620
----------------	--------	-------	--------	-----

Add: 815 DATA 1 HR 23 MIN 35.5 SEC 825 DATA 3 HRS 49 MIN 24 SEC

Change: 100 CLS

indian Bor		
	110	PRINT "OLYMPIC TRACK AND FIELD RECORDS";
	170	PRINT C; TAB(3); R1\$;
	200	PRINT TAB(15);C+1;TAB(17);R1\$
	250	PRINT "TO SEE CURRENT OLYMPIC RECORD,"
	300	CLS
	310	PRINT "==== OLYMPIC RECORD BOOK ===="
	57Ø	FOR F=1 TO 32
	780	DATA 110-M HRDLES, 1972, RODNEY MILBURN, USA, 13.24
		SEC
	790	DATA 400-M HRDLES, 1976, EDWIN MOSES, USA, 47.6 SEC
	810	DATA 20000-M WLK, 1980, MAURIZIO DAMILIANO, ITALY
	820	DATA 50000-M WLK, 1980, HARTWIG GAUDER, EAST
		GERMANY
	840	DATA 1600-M RELY, 1968, (TEAM), USA, 2 MIN 56.1 SEC
	920	DATA HAMMER THRW, 1980, YURI SEDYKH, USSR, 268 FT
		4-1/2 IN

Track and Field Record Book – Women

If you've already typed in the men's record book, you'll have this program running in no time! Just delete the DATA statements for the men and enter the statements for women. Then change lines 10, 130, 290, 390 and 400 to match those lines here. Your new record book should work just fine.

Sample Run

=== OLYMPIC TRACK AND FIELD RECORDS ===

1	100-M DASH
3	400-M DASH
5	1500-M RUN
7	400-M RELAY
9	HIGH JUMP
11	SHOT PUT
13	JAVELIN

2 200-M DASH 4 800-M RUN 6 100-M HURDLES 8 1600-M RELAY 10 LONG JUMP 12 DISCUS 14 PENTATHLON

TO SEE THE CURRENT OLYMPIC RECORD, ENTER THE NUMBER OF THE EVENT? 9

======= OLYMPIC RECORD BOOK ========

EVENT: HIGH JUMP

YEAR: 1980

RECORD HOLDER: SARA SIMEONI

COUNTRY: ITALY

OLYMPIC RECORD: 6 FT 5-1/2 IN

WANT TO LOOK UP ANOTHER RECORD? Y

TO SEE THE CURRENT OLYMPIC RECORD, ENTER THE NUMBER OF THE EVENT? 13

(continued)

103

======== OLYMPIC RECORD BOOK ======== EVENT: JAVELIN YEAR: 1980 RECORD HOLDER: MARIA COLON COUNTRY: CUBA OLYMPIC RECORD: 224 FT 5 IN

WANT TO LOOK UP ANOTHER RECORD? N

Program Listing

```
10 REM TRACK AND FIELD RECORD BOOK -- WOMEN
100 PRINT CHR$(12)
110 PRINT "=== OLYMPIC TRACK AND FIELD RECORDS ==="
120 PRINT
130 FOR C=1 TO 14 STEP 2
140 R=C
150 S=5
160 GOSUB 650
170 PRINT C; TAB(5); R1$;
180 R=C+1
190 GOSUB 650
200 PRINT TAB(20);C+1;TAB(24);R1$
210 NEXT C
220 PRINT
230 GOSUB 570
240 PRINT
250 PRINT "TO SEE THE CURRENT OLYMPIC RECORD,"
260 PRINT "ENTER THE NUMBER OF THE EVENT";
270 INPUT N$
280 N=VAL(N$)
290 IF N<1 OR N>14 THEN 250
300 PRINT CHR$(12)
310 PRINT "======= OLYMPIC RECORD BOOK ========"
320 PRINT
330 R=N
340 GOSUB 650
350 FOR F=1 TO 6
360 IF MID$(R1$,F,2)<>"-M" THEN 380
37Ø R1$=MID$(R1$,1,F+1)+"ETER"+MID$(R1$,F+2,LEN(R1$)-F)
```

380 NEXT F 390 REM THIS LINE AND THE NEXT MUST BE 400 REM CHANGED FROM THE MEN'S RECORD PROGRAM 410 PRINT "EVENT: ";R1\$ 420 PRINT 430 PRINT "YEAR: ";R2\$ 440 PRINT 450 PRINT "RECORD HOLDER: ";R3\$ 460 PRINT 470 PRINT "COUNTRY: ";R4\$ 480 PRINT 490 PRINT "OLYMPIC RECORD: ";R5\$ 500 PRINT 510 GOSUB 570 520 PRINT "WANT TO LOOK UP ANOTHER RECORD"; 530 INPUT YS 540 IF MID\$(Y\$,1,1)<>"N" THEN 100 550 END 560 REM --- LINE AND SPACE SUBROUTINE ---570 FOR F=1 TO 39 580 PRINT "="; 590 NEXT F 600 FOR G=1 TO 3 610 PRINT 620 NEXT G 630 RETURN 640 REM --- READING SUBROUTINE ---650 FOR O=1 TO R 660 READ R1\$,R2\$,R3\$,R4\$,R5\$ 670 NEXT O 680 RESTORE 690 RETURN 700 DATA 100-M DASH, 1960 (AND 1968), WILMA RUDOLPH (& WYOMIA TYUS), USA, 11 SEC 710 DATA 200-M DASH, 1980, BARBARA WOCKEL, EAST GERMANY, 22.03 SEC 720 DATA 400-M DASH,1980, MARITA KOCH, EAST GERMANY,48.88 SEC 730 DATA 800-M RUN, 1980, NADEZHDA OLIZARENKO, USSR, 1 MIN 53.5 SEC 740 DATA 1500-M RUN, 1976, TATIANA KAZANKINA, USSR, 4 MIN 5.48 SEC 750 DATA 100-M HURDLES, 1980, VERA KOMISOVA, USSR, 12.56 SEC 760 DATA 400-M RELAY, 1980, (TEAM), EAST GERMANY, 41.60 SEC 770 DATA 1600-M RELAY,1976, (TEAM), EAST GERMANY, 3 MIN 19.23 SEC 780 DATA HIGH JUMP, 1980, SARA SIMEONI, ITALY, 6 FT 5-1/2 IN 790 DATA LONG JUMP, 1980, TATIANA KOLPAKOVA, USSR, 23 FT 2 IN 800 DATA SHOT PUT, 1980, ILONA SLUPLANEK, USSR, 73 FT 6 IN 810 DATA DISCUS, 1980, EVELIN JAHL, EAST GERMANY, 229 FT 6 1/2 IN 820 DATA JAVELIN, 1980, MARIA COLON, CUBA, 224 FT 5 IN 830 DATA PENTATHLON, 1964, IRINA PRESS, USSR, 5246 PTS

If You Have . . .

APPLE II

Change: 100 HOME 300 HOME

ATARI

C

Add:	<pre>91 DIM Rl\$(25),R2\$(15),R3\$(30),R4\$(17),R5\$(22) 92 DIM N\$(2),Y\$(3),RlA\$(11) 169 IDX=3: GOSUB 855 171 IF C>=10 THEN IDX=2 172 GOSUB 855:PRINT Rl\$; 185 IDX=(16-(LEN(Rl\$))):GOSUB 855 201 IF C+1>=10 THEN IDX=2 202 GOSUB 855:PRINT Rl\$</pre>
	<pre>371 IF N=11 THEN 390 373 PRINT "EVENT: ";Rl\$;"ETER";RLA\$ 374 GOTO 420 401 PRINT "EVENT: ";RL\$ 402 GOTO 420 855 FOR A=1 TO IDX 865 PRINT " ";:NEXT A:RETURN</pre>
Change:	<pre>100 PRINT CHR\$(125) 170 PRINT C; 200 PRINT C+1;:IDX=3 300 PRINT CHR\$(125) 360 IF R1\$(F,F+1)<>"-M" THEN 380 370 R1A\$=R1\$(F+2,LEN(R1\$)):R1\$=R1\$(1,F+1)</pre>

380 NEXT F 540 IF Y\$(1,1)<>"N" THEN 100 570 FOR F=1 TO 37

COMMODORE 64

Change:	100	PRINT	CHRŞ	(147)
0	300	PRINT	CHR\$	(147)

COMMODORE VIC-20

Delete: 240

Change:	100	PRINT	CHR\$(147)
0	170	PRINT	C;TAB(5);R1\$
	200	PRINT	C+1;TAB(5);R1\$
	260	PRINT	"ENTER THE NUMBER OF THE EVENT"
			CHR\$(147)
			"= OLYMPIC RECORD BOOK ="
	520	PRINT	"WANT TO LOOK UP ANOTHER RECORD"

570 FOR F=1 TO 21 600 FOR G=1 TO 2

TEXAS INSTRUMENTS 99/4A

```
Add: 195 IF (C<>7) THEN 200
196 PRINT
197 PRINT C+1;TAB(5);R1$
198 GOTO 210
Change: 100 CALL CLEAR
200 PRINT TAB(15):C+1:TAB(19):P
```

200 PRINT TAB(15);C+1;TAB(19);R1\$
290 IF (N<1) + (N>14) THEN 250
300 CALL CLEAR
360 IF SEG\$(R1\$,F,2)<>"-M" THEN 380
370 R1\$=SEG\$(R1\$,1,F+1)&"ETER"&SEG\$(R1\$,F+2,
LEN(R1\$)-F)
540 IF SEG\$(Y\$,1,1)<>"N" THEN 100
570 FOR F=1 TO 28

TRS-80 COLOR COMPUTER

Doloto: 200 100 COO CIO COO

Delete.	590, 400,	000,010,020
Change:	170 PRINT 200 PRINT 250 PRINT 300 CLS	"OLYMPIC TRACK AND FIELD RECORDS" C;TAB(3);Rl\$; TAB(15);C+1;TAB(17);Rl\$ "TO SEE CURRENT OLYMPIC RECORD," "===== OLYMPIC RECORD BOOK =====" =1 TO 32

Swimming and Diving Record Book

Here are all the important Olympic swimming and diving records. Choose one, and you won't believe how fast it appears on your screen! Remember: You can update the DATA statements during or after the 1984 Olympics. Check a newspaper or almanac for the facts.

Sample Run

ENTER "M" FOR MEN'S RECORDS OR "W" FOR WOMEN'S RECORDS? M

=== MEN'S OLYMPIC SWIMMING RECORDS ===

1	100-METER FREESTYLE
2	200-METER FREESTYLE
3	400-METER FREESTYLE
4	1500-METER FREESTYLE
5	100-METER BACKSTROKE
6	200-METER BACKSTROKE
7	100-METER BREASTSTROKE
8	200-METER BREASTSTROKE
9	100-METER BUTTERFLY
10	200-METER BUTTERFLY
11	400-METER INDIV MEDLEY
12	800-METER FREESTYLE RELAY
13	400-METER MEDLEY RELAY
14	SPRINGBOARD DIVE
3.5	DE LEDODIE DETER

15 PLATFORM DIVE

TO SEE THE CURRENT OLYMPIC RECORD, ENTER THE NUMBER NEXT TO THE EVENT? 9

===== MEN'S OLYMPIC RECORD BOOK ======

EVENT: 100-METER BUTTERFLY

YEAR: 1972

RECORD HOLDER: MARK SPITZ

COUNTRY: USA

OLYMPIC RECORD: 54.27 SEC

WANT TO LOOK UP ANOTHER RECORD? YES

ENTER "M" FOR MEN'S RECORDS OR "W" FOR WOMEN'S RECORDS? W

== WOMEN'S OLYMPIC SWIMMING RECORDS ==

100-METER FREESTYLE 1 200-METER FREESTYLE 2 3 400-METER FREESTYLE 800-METER FREESTYLE 4 5 100-METER BACKSTROKE 6 200-METER BACKSTROKE 7 100-METER BREASTSTROKE 8 200-METER BREASTSTROKE 9 100-METER BUTTERFLY 10 200-METER BUTTERFLY 11 400-METER INDIV MEDLEY 12 400-METER FREESTYLE RELAY 13 400-METER MEDLEY RELAY 14 SPRINGBOARD DIVE 15 PLATFORM DIVE

TO SEE THE CURRENT OLYMPIC RECORD,

ENTER THE NUMBER NEXT TO THE EVENT? 4

===== WOMEN'S OLYMPIC RECORD BOOK =====

EVENT: 800-METER FREESTYLE

RECORD HOLDER: MICHELLE FORD

OLYMPIC RECORD: 8 MIN 28.9 SEC

YEAR: 1980

COUNTRY: AUSTRALIA

WANT TO LOOK UP ANOTHER RECORD? NO

Program Listing

10 REM SWIMMING AND DIVING RECORD BOOK 100 PRINT CHR\$(12) 110 MW=0 120 FOR S=1 TO 3 130 PRINT 140 NEXT S 150 PRINT TAB(5); "ENTER "; CHR\$(34); "M"; CHR\$(34); " FOR MEN'S RECORDS" 160 PRINT TAB(5); "OR "; CHR\$(34); "W"; CHR\$(34); " FOR WOMEN'S **RECORDS"**: 170 INPUT R\$ 180 PRINT CHR\$(12) 190 IF R\$="M" THEN 250 200 IF RS="W" THEN 220 210 GOTO 100 220 PRINT "== WOMEN'S OLYMPIC SWIMMING RECORDS == " 230 MW=15 240 GOTO 260 250 PRINT "=== MEN'S OLYMPIC SWIMMING RECORDS ===" 260 PRINT 270 FOR E=1 TO 15 280 R=E+MW 290 GOSUB 810 300 PRINT TAB(3); E; TAB(8); R1\$ 310 NEXT E 320 PRINT 330 GOSUB 740 340 PRINT 350 PRINT "TO SEE THE CURRENT OLYMPIC RECORD," 360 PRINT "ENTER THE NUMBER NEXT TO THE EVENT"; 370 INPUT N\$ 38Ø N=VAL(N\$) 390 IF N<1 OR N>15 THEN 180 400 PRINT CHR\$(12) 410 R=N+MW 420 GOSUB 810 430 IF R\$="W" THEN 560 440 PRINT "===== MEN'S OLYMPIC RECORD BOOK ======" 450 PRINT 460 PRINT "EVENT: ";R1\$ 470 PRINT 480 PRINT "YEAR: ";R2\$ 490 PRINT 500 PRINT "RECORD HOLDER: ";R3\$ 510 PRINT 520 PRINT "COUNTRY: ";R4\$ 530 PRINT 540 PRINT "OLYMPIC RECORD: ";R5\$ 550 GOTO 670 560 PRINT "===== WOMEN'S OLYMPIC RECORD BOOK =====" 570 PRINT 580 PRINT "EVENT: ";R1\$

590 PRINT 600 PRINT "YEAR: ";R2\$ 610 PRINT 620 PRINT "RECORD HOLDER: ";R3\$ 630 PRINT 640 PRINT "COUNTRY: ";R4\$ 650 PRINT 660 PRINT "OLYMPIC RECORD: ";R5\$ 670 PRINT 680 GOSUB 740 690 PRINT "WANT TO LOOK UP ANOTHER RECORD"; 700 INPUT Y\$ 710 IF MID\$(Y\$,1,1) <>"N" THEN 110 720 END 730 REM --- LINE AND SPACE SUBROUTINE ---740 FOR F=1 TO 39 750 PRINT "="; 760 NEXT F 770 PRINT 780 PRINT 790 RETURN 800 REM --- READING SUBROUTINE ---810 FOR Q=1 TO R 820 READ R1\$, R2\$, R3\$, R4\$, R5\$ 830 NEXT Q **840 RESTORE** 850 RETURN 860 DATA 100-METER FREESTYLE, 1976, JIM MONTGOMERY, USA, 49.99 SEC 870 DATA 200-METER FREESTYLE, 1980, SERGEI KOPLIAKOV, USSR, 1 MIN 49.81 SEC 880 DATA 400-METER FREESTYLE, 1980, VLADIMIR SALNIKOV, USSR, 3 MIN 51.31 SEC 890 DATA 1500-METER FREESTYLE, 1980, VLADIMIR SALNIKOV, USSR, 14 MIN 58.27 SEC 900 DATA 100-METER BACKSTROKE, 1976, JOHN NABER, USA, 55.49 SEC 910 DATA 200-METER BACKSTROKE, 1976, JOHN NABER, USA, 1 MIN 59.19 SEC 920 DATA 100-METER BREASTSTROKE, 1976, JOHN HENCKEN, USA, 1 MIN 3.11 SEC 930 DATA 200-METER BREASTSTROKE, 1976, DAVID WILLKIE, BRITAIN, 2 MIN 15.11 SEC 940 DATA 100-METER BUTTERFLY, 1972, MARK SPITZ, USA, 54.27 SEC 950 DATA 200-METER BUTTERFLY, 1976, MIKE BRUNER, USA, 1 MIN 59.23 SEC 960 DATA 400-METER INDIV MEDLEY, 1980, ALEKSANDR SIDORENKO, USSR,4 MIN 22.8 SEC 970 DATA 800-METER FREESTYLE RELAY, 1976, (TEAM), USA, 7 MIN 23.22 SEC 980 DATA 400-METER MEDLEY RELAY, 1976, (TEAM), USA, 3 MIN 42.22 SEC 990 DATA SPRINGBOARD DIVE, 1980, ALEXSANDR PORTNOV, USSR, 905.02 PTS

- 1000 DATA PLATFORM DIVE, 1980, FALK HOFFMAN, E GERMANY, 835.65 PTS
- 1010 DATA 100-METER FREESTYLE,1980,BARBARA KRAUSE,E GERMANY, 54.79 SEC
- 1020 DATA 200-METER FREESTYLE, 1980, BARBARA KRAUSE, E GERMANY, 1 MIN 58.33 SEC
- 1030 DATA 400-METER FREESTYLE, 1980, INES DIERS, E GERMANY, 4 MIN 8.76 SEC
- 1040 DATA 800-METER FREESTYLE, 1980, MICHELLE FORD, AUSTRALIA, 8 MIN 28.9 SEC
- 1050 DATA 100-METER BACKSTROKE, 1980, RICA REINISCH, E GERMANY, 1 MIN 0.86 SEC
- 1060 DATA 200-METER BACKSTROKE, 1980, RICA REINISCH, E GERMANY, 2 MIN 11.77 SEC
- 1070 DATA 100-METER BREASTSTROKE, 1980, UTE GEWENIGER, E GERMANY, 1 MIN 10.22 SEC
- 1080 DATA 200-METER BREASTSTROKE, 1980, LINA KACHUSHITE, USSR, 2 MIN 29.54 SEC
- 1090 DATA 100-METER BUTTERFLY, 1976, KORNELIA ENDER, E GERMANY, 1 MIN 0.13 SEC
- 1100 DATA 200-METER BUTTERFLY,1980,INES GEISSLER,E GERMANY, 2 MIN 10.44 SEC
- 1110 DATA 400-METER INDIV MEDLEY,1980,PETRA SCHNEIDER,E GERMANY,4 MIN 36.29 SEC
- 1120 DATA 400-METER FREESTYLE RELAY,1980,(TEAM),E GERMANY, 3 MIN 42.71 SEC
- 1130 DATA 400-METER MEDLEY RELAY,1980,(TEAM),E GERMANY,4 MIN 6.67 SEC
- 1140 DATA SPRINGBOARD DIVE, 1980, IRINA KALININA, USSR, 725.91 PTS
- 1150 DATA PLATFORM DIVE, 1980, MARTINA JASCHKE, E GERMANY, 596.25 PTS

If You Have . .

APPLE II

Change:	100	HOME
	180	HOME
	400	HOME

ATARI

Add: 91 DIM R1\$(27),R2\$(4),R3\$(22),R4\$(17),R5\$(22) 92 DIM R\$(1),H\$(2),Y\$(3) 149 IDX=4 155 PRINT " FOR MEN'S RECORDS"; 165 PRINT " FOR WOMEN'S RECORDS";

	301 IDX=3:IF E>=10 THEN IDX=2 302 GOSUB 1165: PRINT R1\$ 1165 FOR A=1 TO IDX 1175 PRINT " ";:NEXT A:RETURN
Change:	100 PRINT CHR\$(125)
DIT (MAR	150 GOSUB 1165: PRINT "ENTER "; CHR\$(34); "M";
	CHR\$(34);
	160 GOSUB 1165: PRINT "OR "; CHR\$(34); "W"; CHR\$(34);
	180 PRINT CHR\$(125)
	300 IDX=2:GOSUB 1165:PRINT E;
	400 PRINT CHR\$(125)
	710 IF Y\$(1,1) <>"N" THEN 110
	740 FOR F=1 TO 37

COMMODORE 64

Change: 100 PRINT CHR\$(147) 180 PRINT CHR\$(147) 400 PRINT CHR\$(147)

COMMODORE VIC-20

Add: 165 PRINT " FOR WOMEN'S RECORDS" 305 IF E=8 THEN PRINT "HIT RETURN FOR OTHER RECORDS" 306 IF E=8 THEN INPUT D\$

Change: 100 PRINT CHR\$(147) 160 PRINT TAB(5);"OR ";CHR\$(34);"W";CHR\$(34); 180 PRINT CHR\$(147) 300 PRINT E; TAB(4); R1\$ 360 PRINT "ENTER THE NUMBER NEXT TO THE EVENT" 400 PRINT CHR\$(147) 690 PRINT "WANT TO LOOK UP ANOTHER RECORD" 740 FOR F=1 TO 21

TEXAS INSTRUMENTS 99/4A

Add: 925 DATA 1 MIN 3.11 SEC 935 DATA BRITAIN,2 MIN 15.11 SEC 965 DATA USSR,4 MIN 22.8 SEC 975 DATA 7 MIN 23.22 SEC 985 DATA 3 MIN 42.22 SEC 1075 DATA E GERMANY,1 MIN 10.22 SEC 1085 DATA USSR,2 MIN 29.54 SEC 1115 DATA E GERMANY,4 MIN 36.29 SEC 1125 DATA 3 MIN 42.71 SEC 1135 DATA 4 MIN 6.67 SEC

Change: 100 CALL CLEAR 180 CALL CLEAR

400 CALL CLEAR

- 740 FOR F=1 TO 28
- 920 DATA 100-M BREASTSTROKE, 1976, JOHN HENCKEN, USA
- 930 DATA 200-M BREASTSTROKE, 1976, DAVID WILLKIE
- 960 DATA 400-METER INDIV MED, 1980, ALEKSANDR SIDORENKO

970 DATA 800-M FREESTYLE RELAY,1976,(TEAM),USA 980 DATA 400-M MEDLEY RELAY,1976,(TEAM),USA 1070 DATA 100-M BREASTSTROKE,1980,UTE GEWENIGER 1080 DATA 200-M BREASTSTROKE,1980,LINA KACHUSHITE

- 1110 DATA 400-M INDIV MEDLEY, 1980, PETRA SCHNEIDER
- 1120 DATA 400-M FREESTYLE RELAY,1980,(TEAM), E GERMANY
- 1130 DATA 400-M MEDLEY RELAY,1980, (TEAM), E GERMANY

TRS-80 COLOR COMPUTER

Delete: 260, 320, 340, 780

- Add: 305 IF E=7 THEN PRINT "HIT ENTER FOR REST OF LIST"; 306 IF E=7 THEN INPUT X\$
- Change: 100 CLS

180	CLS	
220	PRINT	"WOMEN'S OLYMPIC SWIMMING RECORDS";
250	PRINT	"MEN'S OLYMPIC SWIMMING RECORDS ";
300	PRINT	E; TAB(5);R1\$
350	PRINT	"TO SEE CURRENT OLYMPIC RECORD,"
400	CLS	
440	PRINT	"== MEN'S OLYMPIC RECORD BOOK =="
56Ø	PRINT	"= WOMEN'S OLYMPIC RECORD BOOK ="
740	FOR F=	1 TO 31

Rowing Race

You can't row your boat gently down the stream if you expect to win an Olympic race. You have to be quick with the oars if you want to go for the gold. But watch out! Too many mistakes, and you'll get soaking wet!

Sample Run

YOU ARE THE COXSWAIN OF A FOUR-PERSON SHELL (A TYPE OF BOAT) IN THE ROWING COMPETITION.

HERE'S YOUR SHELL: Y----> HERE'S THE OTHER SHELL: O---->

TO MOVE AHEAD, YOU HAVE TO ENTER A WORD CORRECTLY. FOUR WRONG WORDS AND YOU MAY FALL IN THE WATER.

ENTER ANY KEY TO CONTINUE?

Y--->

WWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

0---->

TO MOVE AHEAD, TYPE IN THIS WORD: PORT ? PORT

Y---->

0---->

WWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

(continued)

115

TO MOVE AHEAD, TYPE IN THIS WORD: CROWD ? CROWD

WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

Y---->

0---->

[There's more — when you get to the end of the program, you'll see something like this:]

TO MOVE AHEAD, TYPE IN THIS WORD: PULL ? PULL

WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

Y---->

0---->

YOU WIN! YOU'VE GOT A GOLD MEDAL CREW!

Program Listing

10 REM ROWING RACE 100 YS="Y---->" 110 OS="0--->" 120 PRINT "YOU ARE THE COXSWAIN OF A" 130 PRINT "FOUR-PERSON SHELL (A TYPE OF" 140 PRINT "BOAT) IN THE ROWING COMPETITION." 150 PRINT 160 PRINT "HERE'S YOUR SHELL: ":YS 170 PRINT "HERE'S THE OTHER SHELL: ";0\$ 180 PRINT 190 PRINT "TO MOVE AHEAD, YOU HAVE TO" 200 PRINT "ENTER A WORD CORRECTLY." 210 PRINT "FOUR WRONG WORDS AND YOU" 220 PRINT "MAY FALL IN THE WATER." 230 PRINT 240 PRINT "ENTER ANY KEY TO CONTINUE"; 250 INPUT XS 260 YS=1 27Ø OS=1 280 FOR I=1 TO 1+INT(RND(1)*30) 290 READ R\$ 300 NEXT I 310 RESTORE 320 IF R\$<>L\$ THEN 340 330 GOTO 280 340 PRINT CHR\$(12) 350 GOSUB 750 360 PRINT 370 PRINT 380 PRINT TAB(YS);Y\$ 390 PRINT 400 PRINT 410 GOSUB 750 420 PRINT 430 PRINT 440 PRINT TAB(OS);0\$ 450 PRINT 460 GOSUB 750 470 PRINT 480 PRINT 490 IF OS>30 OR YS>30 THEN 630 500 PRINT "TO MOVE AHEAD," 510 PRINT "TYPE IN THIS WORD:" 520 PRINT RS 530 L\$=R\$ 540 INPUT W\$ 550 IF W\$="" THEN 500 560 IF INT(RND(1)*11)<10 THEN OS=OS+1 570 IF W\$<>R\$ THEN 600 58Ø YS=YS+1 590 GOTO 280 600 F=F+1

```
610 IF F>3 THEN 690
620 GOTO 280
630 IF YS<31 THEN PRINT "YOU LOST!"
640 IF YS<31 THEN PRINT "YOU'LL SETTLE FOR SILVER."
650 IF YS>30 THEN PRINT "YOU WIN!"
660 IF YS>30 AND OS>30 THEN PRINT "BUT JUST BY A HAIR!"
670 IF YS>30 THEN PRINT "YOU'VE GOT A GOLD MEDAL CREW!"
680 END
690 IF INT(RND(1)*2)=1 THEN 280
700 PRINT
710 PRINT "S P L A S H !"
720 PRINT "LOOKS LIKE YOU'LL HAVE TO TRY AGAIN"
730 PRINT "IN FOUR YEARS!"
740 END
750 FOR I=1 TO 35
760 PRINT "W";
770 NEXT I
780 RETURN
790 DATA OARS, ROW, STROKE, PULL, KEEL
800 DATA BOW, STERN, SHELL, MEDAL, WATER
810 DATA SPEED, MEGAPHONE, YELL, ARMS, TIME
820 DATA HURRY, WAVES, WIND, PORT, STARBOARD
830 DATA RUDDER, BOAT, GOLD, SILVER, BRONZE
840 DATA CROWD, LANE, CHEER, RACE, FIRST
```

☐ If You Have . . .

APPLE II

Change: 340 HOME

ATARI

Add:	95 DIM Y\$(6),O\$(6),X\$(1),R\$(11),L\$(11),W\$(11) 855 FOR A=1 TO IDX 865 PRINT " ";:NEXT A:RETURN
Change:	280 FOR I=1 TO 1+INT(RND(0)*30) 340 PRINT CHR\$(125)
	380 IDX=YS:GOSUB 855:PRINT Y\$
	440 IDX=OS:GOSUB 855:PRINT O\$
	560 IF INT(RND(0)*11)<10 THEN OS=OS+1
	690 TF INT(RND(0)*2)=1 THEN 280

COMMODORE 64

Change: 340 PRINT CHR\$(147)

COMMODORE VIC-20

Change: 340 PRINT CHR\$(147)

- 490 IF OS>15 OR YS>15 THEN 630
- 630 IF YS<16 THEN PRINT "YOU LOST!"
- 640 IF YS<16 THEN PRINT "YOU'LL SETTLE FOR SILVER."
- 650 IF YS>15 THEN PRINT "YOU WIN!"
- 660 IF YS>15 AND OS>15 THEN PRINT "BUT JUST BY A HAIR!"
- 670 IF YS>15 THEN PRINT "YOU'VE GOT A GOLD MEDAL CREW!"
- 750 FOR I=1 TO 21

TEXAS INSTRUMENTS 99/4A

Add:	645 652	OS=OS+1 PRINT "YOU'LL SETTLE FOR SILVER" PRINT "YOU WIN!" IF OS<=23 THEN 670
Change:		FOR I=1 TO 1+INT(RND*30)
	340	CALL CLEAR
	490	IF (OS>23)+(YS>23) THEN 630
	560	IF INT(RND*11)>=10 THEN 570
	630	IF YS>=23 THEN 650
	640	PRINT "YOU LOST!"
	650	IF YS<=23 THEN 680
		PRINT "BUT JUST BY A HAIR!"
	670	PRINT "YOU'VE GOT A GOLD MEDAL CREW!"
	690	IF INT(RND*2)=1 THEN 280
		FOR I=1 TO 28

TRS-80 COLOR COMPUTER

Change:	280	FOR $I=1$ TO RND(30)
	340	CLS
	490	IF OS>25 OR YS>25 THEN 630
	560	IF RND(11)<10 THEN OS=OS+1
	630	IF YS<26 THEN PRINT "YOU LOST!"
	640	IF YS<26 THEN PRINT "YOU'LL HAVE TO SETTLE
		FOR SILVER."
	650	IF YS>25 THEN PRINT "YOU WIN!"
	660	IF YS>25 AND OS>25 THEN PRINT "BUT JUST BY A
		HAIR!"
	67Ø	IF YS>25 THEN PRINT "YOU'VE GOT A GOLD MEDAL
		CREW!"
	690	IF RND(2)=1 THEN 280
		FOR I=1 TO 31

International Olympic Months

Around the world, athletes train for months on end to get into the Olympic Games. But exactly what are those months called in foreign countries? This program gives you the answers in five languages!

Sample Run

WHAT'S THE NAME OF THE MONTH IN YOUR OPPONENT'S LANGUAGE? THIS PROGRAM WILL HELP YOU FIND OUT.

- 1 ENGLISH
- 2 SWEDISH
- 3 FRENCH
- 4 ITALIAN
- 5 SPANISH
- 6 GERMAN

SELECT A LANGUAGE BY NUMBER? 2

LANGUAGE SELECTED: SWEDISH

1 JANUARY

- 2 FEBRUARY
- 3 MARCH
- 4 APRIL
- 5 MAY
- 6 JUNE
- 7 JULY
- 8 AUGUST
- 9 SEPTEMBER
- 10 OCTOBER
- 11 NOVEMBER
- 12 DECEMBER

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A MONTH, ENTER THE CORRECT NUMBER? 10

IN SWEDISH, OCTOBER IS OKTOBER.

120

[There's more — when you get to the end of the program, you'll see something like this:]

IN ITALIAN, FEBRUARY IS FEBBRAIO.

- 1 JANUARY
- 2 FEBRUARY
- 3 MARCH
- 4 APRIL
- 5 MAY
- 6 JUNE
- 7 JULY 8 AUGUST
- 9 SEPTEMBER
- 10 OCTOBER
- 11 NOVEMBER
- 12 DECEMPER
- 12 DECEMBER

(TO SWITCH LANGUAGES, ENTER "S" --TO QUIT, ENTER "Q") TO TRANSLATE A MONTH, ENTER THE CORRECT NUMBER? Q

Program Listing

10 F	REM INTERNATIONAL OLYMPIC MONTHS	
100	PRINT	
110	PRINT "WHAT'S THE NAME OF THE MONTH"	
120	PRINT "IN YOUR OPPONENT'S LANGUAGE?"	
130	PRINT "THIS PROGRAM WILL HELP YOU FIND OUT.	"
140	PRINT	
150	PRINT	
160	FOR C=1 TO 6	
170	Y=C	
180	GOSUB 680	
190	PRINT TAB(2);C;TAB(5);F\$	
200	NEXT C	
210	PRINT	
220	PRINT "SELECT A LANGUAGE BY NUMBER";	
230	INPUT L\$	
240	L=VAL(L\$)	
250	IF L<1 OR L>6 THEN 220	
260	X=T	
270	GOSUB 680	
	PRINT	
290	PRINT "LANGUAGE SELECTED: ";F\$	
300	PRINT	(00

```
310 FOR D=1 TO 12
320 Y=6
330 Z=(D*6)-5
340 GOSUB 680
350 PRINT TAB(2); D; TAB(7); M$
360 NEXT D
370 PRINT
380 PRINT "(TO SWITCH LANGUAGES, ENTER ";CHR$(34);"S";
    CHR$(34)
390 PRINT "--TO QUIT, ENTER "; CHR$(34); "Q"; CHR$(34); ")"
400 PRINT "TO TRANSLATE A MONTH,"
410 PRINT "ENTER THE CORRECT NUMBER";
420 INPUT C$
430 IF CS="O" THEN END
440 C=VAL(C$)
450 IF C$="S" THEN 150
460 IF C>0 AND C<13 THEN 480
470 GOTO 410
480 PRINT
490 PRINT
500 Y=L
510 GOSUB 680
520 PRINT "IN ";F$;", ";
530 Y=6
540 Z = (C*6) - 5
550 GOSUB 680
560 PRINT MS;" IS ";
570 T$=M$
580 Z=(C*6)-(6-L)
590 GOSUB 680
600 PRINT M$;"."
610 PRINT
620 IF M$<>T$ THEN 300
630 Y=L
640 GOSUB 680
650 PRINT "SEE? YOU ALREADY KNOW A LITTLE ";F$;"!"
660 GOTO 300
670 REM --- READING SUBROUTINE ---
680 FOR P=1 TO Y
690 READ FS
700 NEXT P
710 FOR Q=1 TO Z
720 READ M$
730 NEXT Q
740 RESTORE
750 RETURN
760 DATA ENGLISH, SWEDISH, FRENCH, ITALIAN, SPANISH, GERMAN
770 DATA JANUARY, JANUARI, JANVIER, GENNAIO, ENERO, JANUAR
780 DATA FEBRUARY, FEBRUARI, FEVRIER, FEBBRAIO, FEBRERO,
    FEBRUAR
790 DATA MARCH, MARS, MARS, MARZO, MARZO, MARZO
800 DATA APRIL, APRIL, AVRIL, APRILE, ABRIL, APRIL
810 DATA MAY, MAJ, MAI, MAGGIO, MAYO, MAI
820 DATA JUNE, JUNI, JUIN, GIUGNO, JUNIO, JUNI
830 DATA JULY, JULI, JUILLET, LUGLIO, JULIO, JULI
```

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```

- 840 DATA AUGUST, AUGUSTI, AOUT, AGOSTO, AGOSTO, AUGUST
- 850 DATA SEPTEMBER, SEPTEMBER, SEPTEMBRE, SETTEMBRE,
 - SEPTIEMBRE, SEPTEMBER
- 860 DATA OCTOBER, OKTOBER, OCTOBRE, OTTOBRE, OCTUBRE, OKTOBER
- 870 DATA NOVEMBER, NOVEMBER, NOVEMBRE, NOBEMBRE, NOVIEMBRE, NOVEMBER
- 880 DATA DECEMBER, DECEMBER, DECEMBRE, DICIEMBRE, DEZEMBER

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM F\$(11),L\$(2),M\$(11),C\$(2),T\$(11) 351 IDX=3:IF D>=10 THEN IDX=2 352 GOSUB 895:PRINT M\$ 895 FOR A=1 TO IDX 905 PRINT " ";:NEXT A:RETURN

Change: 190 IDX=2:GOSUB 895:PRINT C;:GOSUB 895:PRINT F\$ 350 IDX=2:GOSUB 895:PRINT D; 440 IF C\$="S" THEN 150 450 IF ASC(C\$)<49 OR ASC(C\$)>57 THEN 410 460 C=VAL(C\$):GOTO 480

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 220 PRINT "SELECT A LANGUAGE BY NUMBER" 410 PRINT "ENTER THE CORRECT NUMBER"

TEXAS INSTRUMENTS 99/4A

Add:		END GOTO 480	
Change:	43Ø 44Ø	IF (L<1)+(L>6) THEN 220 IF C\$="Q" THEN 890 IF C\$="S" THEN 150	
	450	IF (ASC(C\$)<49)+(ASC(C\$)>57) THEN 410	
		C=VAL(C\$)	

TRS-80 COLOR COMPUTER

Delete: 370

Fix the Scoreboard!

At the Montreal Olympics in 1976, Romania's Nadia Comaneci gave the scoreboard computer nothing but trouble. For the first time in the history of the Games, a gymnast received perfect 10 scores but the computer was programmed to go no higher than 9.9! Even your home computer can do better than that. But there still seem to be a few bugs in the Olympic scoreboard. See if you have what it takes to fix them!

Sample Run

HOW MANY DAYS HAS IT BEEN SINCE THE START OF THE OLYMPICS? 5

YOU'RE IN CHARGE OF THE SCOREBOARD, BUT IT'S OUT OF ORDER.

NMMMB

TGLBPQUU KRVRYTHTREZFJ SGXMXLUUSIMXCWTOFIAJIFUEWJFOJSRJPSCHIU

THE WORST PART IS THAT IT'S SCRAMBLING THE NAMES OF THE COUNTRIES.

HERE'S A SCRAMBLED ONE NOW: ACUB

QUICK! BEFORE THE CROWD NOTICES! UNSCRAMBLE THAT COUNTRY! ? CUBA

RIGHT! BUT THERE'S ANOTHER PROBLEM: OYSVAUIALG

QUICK! BEFORE THE CROWD NOTICES! UNSCRAMBLE THAT COUNTRY! ? ALVOSLAGIE NO! HURRY! TRY AGAIN! THE LAST LETTER OF THE COUNTRY IS A OYSVAUIALG

QUICK! BEFORE THE CROWD NOTICES! UNSCRAMBLE THAT COUNTRY! ? SYOVALAGU NO! ONE MORE CHANCE! TRY AGAIN! THE LAST 2 LETTERS OF THE COUNTRY ARE IA OYSVAUIALG

QUICK! BEFORE THE CROWD NOTICES! UNSCRAMBLE THAT COUNTRY! ? YUGOSLAVIA

[There's more—when you get to the end of the program, you'll see something like this:]

RIGHT! BUT THERE'S ANOTHER PROBLEM: AJNAP

QUICK! BEFORE THE CROWD NOTICES! UNSCRAMBLE THAT COUNTRY! ? JAPAN

RIGHT! YOU'VE DONE IT! YOU'VE FIXED THE SCOREBOARD! THE CROWD GIVES YOU A STANDING OVATION!

Program Listing

10 REM FIX THE SCOREBOARD! 100 PRINT "HOW MANY DAYS HAS IT BEEN" 110 PRINT "SINCE THE START OF THE OLYMPICS"; 120 INPUT S 130 RANDOMIZE S 140 PRINT 150 DIM C(20),A(6) 160 PRINT "YOU'RE IN CHARGE OF THE SCOREBOARD," 170 PRINT "BUT IT'S OUT OF ORDER." 180 PRINT 190 FOR I=1 TO 20 200 C(I)=1+INT(RND(1)*20) 210 PRINT CHR\$(65+RND(1)*26); 220 FOR J=I-1 TO 1 STEP -1 230 IF C(I)=C(J) THEN 200 240 NEXT J 250 IF I/5=INT(I/5) THEN PRINT 260 NEXT I 270 PRINT 280 PRINT "THE WORST PART IS THAT" 290 PRINT "IT'S SCRAMBLING THE NAMES" 300 PRINT "OF THE COUNTRIES." 310 PRINT

```
320 PRINT "HERE'S A SCRAMBLED ONE NOW:"
330 R=1+INT(RND(1)*20)
340 FOR B=1 TO W
350 IF R=A(B) THEN 330
360 NEXT B
370 FOR I=1 TO R
380 READ CS
390 NEXT I
400 RESTORE
410 FOR I=1 TO 20
420 IF C(I) <LEN(C$)+1 THEN PRINT MID$(C$,C(I),1);
430 NEXT I
440 PRINT
450 PRINT
460 PRINT "OUICK! BEFORE THE CROWD NOTICES!"
470 PRINT "UNSCRAMBLE THAT COUNTRY!"
480 INPUT A$
490 IF AS="" THEN 460
500 IF A$=C$ THEN 680
510 PRINT "NO!"
520 IF F=0 THEN PRINT "HURRY!"
530 IF F=1 THEN PRINT "ONE MORE CHANCE!"
540 IF F=2 THEN 640
550 PRINT "TRY AGAIN!"
56Ø F=F+1
570 IF F=2 THEN 610
580 PRINT "THE LAST LETTER OF THE COUNTRY IS ";
590 PRINT MID$(C$,LEN(C$),1)
600 GOTO 630
610 PRINT "THE LAST 2 LETTERS OF THE COUNTRY ARE ";
620 PRINT MID$(C$, LEN(C$)-1,2)
630 GOTO 410
640 PRINT
650 PRINT "THE COUNTRY IS "; CS; "!"
660 PRINT "TAKE A LONG SHOWER AND DON'T COME BACK!"
67Ø END
680 PRINT
690 PRINT "RIGHT!"
700 F=0
710 IF W=5 THEN 760
720 PRINT "BUT THERE'S ANOTHER PROBLEM:"
730 W=W+1
740 A(W) = R
750 GOTO 330
760 PRINT "YOU'VE DONE IT!"
770 PRINT "YOU'VE FIXED THE SCOREBOARD!"
780 PRINT "THE CROWD GIVES YOU A STANDING OVATION!"
790 DATA UNITED STATES, U.S.S.R., EAST GERMANY
800 DATA WEST GERMANY, JAPAN, POLAND, BULGARIA
810 DATA CUBA, ROMANIA, HUNGARY, FINLAND
820 DATA SWEDEN, ENGLAND, ITALY, CZECHOSLOVAKIA
830 DATA FRANCE, YUGOSLAVIA, NEW ZEALAND
840 DATA SOUTH KOREA, SWITZERLAND
```

If You Have . . .

APPLE II

Delete: 130

ATARI

Delete: 130

Add: 95 DIM C\$(20),A\$(20)

Change: 200 C(I)=1+INT(RND(0)*20) 210 PRINT CHR\$(65+RND(0)*26); 330 R=1+INT(RND(0)*20) 420 IF C(I)<LEN(C\$)+1 THEN PRINT C\$(C(I),C(I)); 590 PRINT C\$(LEN(C\$),LEN(C\$)) 620 PRINT C\$(LEN(C\$)-1,LEN(C\$))

COMMODORE 64

- Delete: 130
- Change: 200 C(I)=l+INT(RND(0)*20) 210 PRINT CHR\$(65+RND(0)*26); 330 R=l+INT(RND(0)*20)

COMMODORE VIC-20

Delete: 130

Change: 110 PRINT "SINCE THE START OF THE OLYMPICS" 200 C(1)=1+INT(RND(0)*20) 210 PRINT CHR\$(65+RND(0)*26); 330 R=1+INT(RND(0)*20)

TEXAS INSTRUMENTS 99/4A

Add:	255	PRINT	
	425	PRINT	<pre>SEG\$(C\$,C(I),1);</pre>
	525	PRINT	"HURRY!"
	535	PRINT	"ONE MORE CHANCE!"

Change: 200 C(I)=1+INT(RND*20); 210 PRINT CHR\$(65+RND*26); 250 IF I/5<>INT(I/5) THEN 260 330 R=1+INT(RND*20) 420 IF C(I)>=LEN(C\$)+1 THEN 430 520 IF F<>0 THEN 530

530 IF F<>1 THEN 540 590 PRINT SEG\$(C\$,LEN(C\$),1) 620 PRINT SEG\$(C\$,LEN(C\$)-1,2)

TRS-80 COLOR COMPUTER

Delete: 130

Change: 200 C(I)=RND(20) 210 PRINT CHR\$(64+RND(26)); 330 R=RND(20)

Soccer Finals

It's down to the last precious seconds. Make a goal and your team wins if not, you'll send the game into overtime. If you have a golden foot, you'll win your team a gold medal!

Sample Run

YOU'RE THE STAR OF THE AMERICAN SOCCER TEAM.

IT'S THE FINAL GAME, AND THE SCORE IS TIED WITH ONLY SECONDS TO GO.

AN OPPOSING FORWARD SHOVES YOU AS YOU MOVE TOWARD HIS GOAL!

IF YOU MAKE THIS PENALTY KICK YOU'LL WIN THE GOLD MEDAL FOR YOUR TEAM!

THE OPPOSING GOALKEEPER STARES AT YOU, DARING YOU TO PUT THE BALL PAST HIM.

HOW MANY SECONDS ARE LEFT? 3

WHICH WAY WILL YOU KICK THE BALL?

- 1 TO THE GOALKEEPER'S LEFT
- 2 STRAIGHT AT THE GOALKEEPER
- 3 TO THE GOALKEEPER'S RIGHT

WHICH WAY? 3

HOW HIGH WILL YOU KICK THE BALL?

- 1 ALONG THE GROUND
- 2 AT WAIST HEIGHT
- 3 TOWARD THE TOP OF THE GOAL

HOW HIGH? 3

THE GOALKEEPER MOVES LEFT AND DIVES TOWARD THE GROUND. THE BALL HURTLES TOWARD THE GOALKEEPER'S RIGHT AND SAILS ABOVE HIS HEAD!

(continued)

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GOAL! THE CROWD GOES WILD! THEY HAIL YOU AS THE HERO!

HOW MANY SECONDS ARE LEFT? 3

WHICH WAY WILL YOU KICK THE BALL?

- 1 TO THE GOALKEEPER'S LEFT
- 2 STRAIGHT AT THE GOALKEEPER
- 3 TO THE GOALKEEPER'S RIGHT

WHICH WAY? 1

HOW HIGH WILL YOU KICK THE BALL?

- 1 ALONG THE GROUND
- 2 AT WAIST HEIGHT
- 3 TOWARD THE TOP OF THE GOAL

HOW HIGH? 1

THE GOALKEEPER MOVES LEFT AND DIVES TOWARD THE GROUND. IT LOOKS LIKE HE HAS IT! HE DOES! THE GOALKEEPER'S GOT IT! THE CLOCK RUNS OUT! YOU'LL HAVE TO PLAY A TIEBREAKER!

Program Listing

10 1	REM SOC	CCER FINALS
100	PRINT	
110	PRINT	"YOU'RE THE STAR"
120	PRINT	"OF THE AMERICAN SOCCER TEAM."
130	PRINT	
	PRINT	"IT'S THE FINAL GAME,"
150	PRINT	"AND THE SCORE IS TIED"
160	PRINT	"WITH ONLY SECONDS TO GO."
170	PRINT	
180	PRINT	"AN OPPOSING FORWARD"
190	PRINT	"SHOVES YOU AS YOU MOVE TOWARD"
200	PRINT	"HIS GOAL!"
210	PRINT	
220	PRINT	"IF YOU MAKE THIS PENALTY KICK"
230	PRINT	"YOU'LL WIN THE GOLD MEDAL FOR YOUR TEAM!"
240	PRINT	
250	PRINT	"THE OPPOSING GOALKEEPER STARES AT YOU,"

260 PRINT "DARING YOU TO PUT THE BALL PAST HIM." 270 PRINT 280 PRINT "HOW MANY SECONDS ARE LEFT"; 290 INPUT N 300 RANDOMIZE N 310 PRINT 320 R=1+INT(RND(1)*3) 330 U=1+INT(RND(1)*3) 340 PRINT "WHICH WAY WILL YOU KICK THE BALL?" 350 PRINT 360 PRINT " 1 TO THE GOALKEEPER'S LEFT" 370 PRINT " 2 STRAIGHT AT THE GOALKEEPER" 380 PRINT " 3 TO THE GOALKEEPER'S RIGHT" 390 PRINT 400 PRINT "WHICH WAY"; 410 INPUT W 420 IF W<1 OR W>3 THEN 400 430 PRINT 440 PRINT "HOW HIGH WILL YOU KICK THE BALL?" 450 PRINT 460 PRINT " 1 ALONG THE GROUND" 470 PRINT " 2 AT WAIST HEIGHT" 480 PRINT " 3 TOWARD THE TOP OF THE GOAL" 490 PRINT 500 PRINT "HOW HIGH"; 510 INPUT H 520 PRINT 530 IF H<1 OR H>3 THEN 500 540 K=1+INT(RND(1)*10) 550 PRINT "THE GOALKEEPER MOVES "; 560 GOSUB 610 570 PRINT "AND "; 580 GOSUB 660 590 IF W=R AND U=H THEN 710 600 GOTO 810 610 IF R=1 THEN PRINT "LEFT" 620 IF R=2 THEN PRINT "FORWARD" 630 IF R=3 THEN PRINT "RIGHT" 640 GOSUB 1070 650 RETURN 660 IF U=1 THEN PRINT "DIVES TOWARD THE GROUND." 670 IF U=2 THEN PRINT "REACHES FOR THE BALL." 680 IF U=3 THEN PRINT "JUMPS INTO THE AIR." 690 GOSUB 1070 700 RETURN 710 PRINT "IT LOOKS LIKE HE HAS IT!" 720 IF Z<9 THEN 790 730 GOSUB 1070 740 PRINT "NO! THE BALL SPINS"; 750 IF H>2 THEN PRINT " OVER HIS HEAD "; 760 IF U=H THEN PRINT " AROUND HIM "; 770 PRINT "INTO THE GOAL!" 780 GOTO 1020 790 PRINT "HE DOES!" 800 GOTO 970

```
810 PRINT "THE BALL HURTLES"
820 IF W-R>0 THEN PRINT "TOWARD THE GOALKEEPER'S RIGHT"
830 IF W-R<0 THEN PRINT "TOWARD THE GOALKEEPER'S LEFT"
840 IF R-W=0 THEN PRINT "STRAIGHT TOWARD THE GOALKEEPER"
850 GOSUB 1070
860 IF H-U>0 THEN PRINT "AND SAILS ABOVE HIS HEAD!"
870 IF H-U<0 THEN PRINT "AND DOWN TOWARD HIS KNEES!"
880 IF H=U THEN PRINT "LIKE A SHOT!"
890 IF H=U OR W=R THEN 930
900 IF ABS(H-U)=1 OR ABS(W-R)=1 THEN 950
910 IF K<3 THEN 970
920 GOTO 1020
930 IF K<7 THEN 970
940 GOTO 1020
950 IF K<5 THEN 970
960 GOTO 1020
970 GOSUB 1070
980 PRINT "THE GOALKEEPER'S GOT IT!"
990 PRINT "THE CLOCK RUNS OUT!"
1000 PRINT "YOU'LL HAVE TO PLAY A TIEBREAKER!"
1010 END
1020 PRINT
1030 PRINT "GOAL!"
1030 PRINT "GOAL!"
1040 PRINT "THE CROWD GOES WILD!"
1050 PRINT "THEY HAIL YOU AS THE HERO!"
1060 END
1070 FOR I=1 TO 400
1080 NEXT I
1090 RETURN
```

If You Have . . .

APPLEII

Delete: 300

ATARI

Delete: 300

Change: 320 R=1+INT(RND(0)*3) 330 U=1+INT(RND(0)*3) 540 K=1+INT(RND(0)*10)

COMMODORE 64

Delete: 300

Change: 320 R=1+INT(RND(0)*3) 330 U=1+INT(RND(0)*3) 540 K=1+INT(RND(0)*10)

COMMODORE VIC-20

Delete: 130, 170, 210, 240, 300

Change: 280 PRINT "HOW MANY SECONDS ARE LEFT" 320 R=1+INT(RND(0)*3) 330 U=1+INT(RND(0)*3) 400 PRINT "WHICH WAY" 500 PRINT "HOW HIGH" 540 K=1+INT(RND(0)*10)

TEXAS INSTRUMENTS 99/4A

Add:	625 635 665 675 685 755 765 825 845 845 865 875	PRINT "LEFT" PRINT "FORWARD" PRINT "RIGHT" PRINT "DIVES TOWARD THE GROUND." PRINT "DIVES TOWARD THE BALL." PRINT "REACHES FOR THE BALL." PRINT "JUMPS INTO THE AIR." PRINT "OVER HIS HEAD "; PRINT " OVER HIS HEAD "; PRINT "AROUND HIM "; PRINT "TOWARD THE GOALKEEPER'S RIGHT" PRINT "TOWARD THE GOALKEEPER'S LEFT" PRINT "STRAIGHT TOWARD THE GOALKEEPER" PRINT "AND SAILS ABOVE HIS HEAD!" PRINT "AND DOWN TOWARD HIS KNEES!" PRINT "LIKE A SHOT!"
Change:	33Ø 42Ø 53Ø 54Ø	R=1+INT (RND*3) U=1+INT (RND*3) IF (W<1)+(W>3) THEN 400 IF (H<1)+(H>3) THEN 500 K=1+INT (RND*10) IF (W=R)*(U=H) THEN 710 IF R<>1 THEN 620 IF R<>2 THEN 630 IF R<>2 THEN 630 IF U<>1 THEN 670 IF U<>2 THEN 680 IF U<>2 THEN 680 IF U<>3 THEN 690 IF H<=2 THEN 760 IF W-R<=0 THEN 830 IF W-R>=0 THEN 840 IF R-W<>0 THEN 850 IF H-U<=0 THEN 880 IF H<>U THEN 890 (con

ontinued)

890 IF (H=U)+(W=R) THEN 930 900 IF (ABS(H-U)=1)+(ABS(W-R)=1) THEN 950

TRS-80 COLOR COMPUTER

Delete: 130, 170, 210, 240, 300

Change: 250 PRINT "THE OPPOSING GOALKEEPER STARES AT YOU, "; 320 R=RND(3) 330 U=RND(3) 540 K=RND(10)

Archery Range

In official Olympic competition, archers shoot 144 arrows in four days. In this computer competition, you'll get one day's worth of shooting — 36 arrows. When you're all through, your score will be multiplied by four to give you a total you can compare with the official Olympic records. Aim well!

Sample Run

HOW GOOD AN ARCHER ARE YOU?

YOU GET 36 SHOTS: 9 FROM EACH OF 4 DISTANCES STARTING AT 30 METERS AND INCREASING BY 20 METERS EACH ROUND.

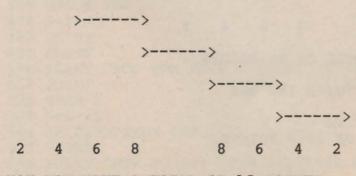
YOU'LL SEE YOUR ARROW FLY ACROSS THE SCREEN. THEN YOU'LL BE ABLE TO CHECK THE TARGET. THE MISSING NUMBER IS THE ONE YOU JUST HIT!

HIT THE ENTER KEY TO BEGIN? 2 4 6 8 10 8 6 4 2

YOU HAVE 9 ARROWS LEFT AT A DISTANCE OF 30 METERS.

45 TO 48 POUNDS OF PULL IS IDEAL: HOW MANY POUNDS OF PULL DO YOU WANT? 47

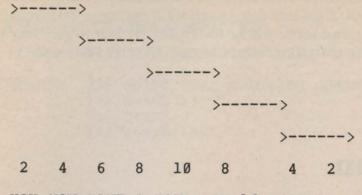
>---->



YOU NOW HAVE A TOTAL OF 10 POINTS.

YOU HAVE 8 ARROWS LEFT AT A DISTANCE OF 30 METERS.

45 TO 48 POUNDS OF PULL IS IDEAL: HOW MANY POUNDS OF PULL DO YOU WANT? 46



YOU NOW HAVE A TOTAL OF 16 POINTS.

[There's more — when you get to the end of the program, you'll see something like this:]

>---->

YOU NOW HAVE A TOTAL OF 64 POINTS.

YOU HAVE 1 ARROW LEFT AT A DISTANCE OF 30 METERS.

. >---->

45 TO 48 POUNDS OF PULL IS IDEAL: HOW MANY POUNDS OF PULL DO YOU WANT? 47

>---->

2 4 6 8 8 6 4 2

>---->

>---->

YOU NOW HAVE A TOTAL OF 74 POINTS. YOUR FINAL POINT TOTAL IS: 320 THAT'S EQUIVALENT TO AN OLYMPIC TOTAL OF 2560 POINTS.

Program Listing

```
10 REM ARCHERY RANGE
100 PRINT
110 PRINT "HOW GOOD AN ARCHER ARE YOU?"
120 M=30
130 PRINT
140 PRINT "YOU GET 36 SHOTS:"
150 PRINT "9 FROM EACH OF 4 DISTANCES"
160 PRINT "STARTING AT 30 METERS"
170 PRINT "AND INCREASING BY 20 METERS"
180 PRINT "EACH ROUND."
190 PRINT
200 PRINT "YOU'LL SEE YOUR ARROW FLY"
210 PRINT "ACROSS THE SCREEN."
220 PRINT "THEN YOU'LL BE ABLE TO CHECK"
230 PRINT "THE TARGET. THE MISSING NUMBER"
240 PRINT "IS THE ONE YOU JUST HIT!"
250 PRINT
260 PRINT "HIT THE ENTER KEY TO BEGIN";
270 INPUT X$
280 PRINT CHR$(12)
290 GOSUB 700
300 PRINT
310 PRINT
320 D=30
330 FOR R=1 TO 9
340 PRINT "YOU HAVE ";10-R;" ARROWS LEFT"
350 PRINT "AT A DISTANCE OF ";D;" METERS."
360 PRINT
370 PRINT "45 TO 48 POUNDS OF PULL IS IDEAL:"
380 PRINT "HOW MANY POUNDS OF PULL DO YOU WANT";
390 INPUT S
400 IF S=0 THEN 370
410 J=18-(RND(1)*13)-(D/10*INT(RND(ABS(S-44))))-(D/S)
420 L=INT(RND(1)*2)
430 IF S<45 OR S>48 THEN J=J-ABS(S-45)
440 GOSUB 940
450 PRINT CHR$(7)
460 GOSUB 650
470 P=P+J
480 PRINT
490 PRINT
500 PRINT "YOU NOW HAVE A TOTAL OF"; P; "POINTS."
510 PRINT
520 NEXT R
530 D=D+20
540 IF D>90 THEN 590
550 PRINT
560 PRINT "NEW ROUND! THE DISTANCE GOES UP TO"
570 PRINT D;" METERS."
580 PRINT
590 IF D<91 THEN 330
600 PRINT "YOUR FINAL POINT TOTAL IS: ";P
                                               (continued)
```

137

```
610 PRINT
620 PRINT "THAT'S EQUIVALENT TO"
630 PRINT "AN OLYMPIC TOTAL OF "; P*8; " POINTS."
640 END
650 IF J<2 THEN J=0
660 IF J=0 THEN PRINT
670 IF J=0 THEN L=0
680 PRINT CHR$(12)
690 IF J=0 THEN PRINT "MISSED THE TARGET!"
700 FOR I=2 TO 8 STEP 2
710 IF F=1 OR L<>1 OR J>I THEN 760
720 PRINT " ";
730 J=I
740 F=1
750 GOTO 770
760 PRINT I; " ";
770 NEXT I
780 IF J>8 THEN J=10
790 IF J<10 THEN PRINT " 10 ";
800 IF J>8 THEN J=10
810 IF J=10 THEN PRINT " ";
820 IF J=10 THEN F=1
830 FOR I=8 TO 2 STEP -2
840 IF F=1 OR L=1 OR J<I THEN 890
850 PRINT " ";
86Ø J=I
87Ø F=1
880 GOTO 900
890 PRINT I; " ";
900 NEXT I
910 F=0
920 L=0
930 RETURN
940 FOR I=1 TO 25
950 PRINT TAB(I);">---->"
960 NEXT I
970 RETURN
```

If You Have . . .

APPLE II

Change: 260 PRINT "HIT THE RETURN KEY TO BEGIN"; 280 HOME 500 PRINT "YOU NOW HAVE A TOTAL OF ";P;" POINTS." 680 HOME

ATARI

Add: 95 DIM X\$(1) 985 FOR A=1 TO IDX 995 PRINT " ";:NEXT A:RETURN

Change: 260 PRINT "HIT THE RETURN KEY TO BEGIN"; 280 PRINT CHR\$(125) 410 J=18-(RND(0)*13)-(D/10*INT(RND(ABS(S-44))))-(D/S) 420 L=INT(RND(0)*2) 500 PRINT "YOU NOW HAVE A TOTAL OF ";P;" POINTS." 680 PRINT CHR\$(125) 950 IDX=I:GOSUB 985:PRINT ">---->"

COMMODORE 64

Change: 260 PRINT "HIT THE RETURN KEY TO BEGIN"; 280 PRINT CHR\$(147) 680 PRINT CHR\$(147)

COMMODORE VIC-20

Delete: 190

Change: 260 PRINT "HIT THE RETURN KEY TO BEGIN" 280 PRINT CHR\$(147) 380 PRINT "HOW MANY POUNDS OF PULL DO YOU WANT" 680 PRINT CHR\$(147) 940 FOR I=1 TO 14

TEXAS INSTRUMENTS 99/4A

```
Add: 435 J=J-ABS(S-45)
       655 J=Ø
       665 PRINT
       695 PRINT "MISSED THE TARGET!"
       785 J=10
                       11
       795 PRINT " 10
       805 J=10
       815 PRINT " ";
Change: 280 CALL CLEAR
        410 J=18-(RND*13)-(D/10*INT(RND(ABS(S-44))))-(D/S)
       420 L=INT(RND*2)
       430 IF (S>44)*(S<49) THEN 440
        450 CALL SOUND (100,440,2)
       650 IF J>=2 THEN 660
       660 IF J<>0 THEN 680
       670 L=0
       680 CALL CLEAR
                                                  (continued)
       690 IF J<>0 THEN 700
```

```
710 IF (F=1)+(L<>1)+(J>1) THEN 760
780 IF J<=8 THEN 790
790 IF J>=10 THEN 800
800 IF J<=8 THEN 810
810 IF J<>10 THEN 830
820 F=1
840 IF (F=1)+(L=1)+(J<1) THEN 890
940 FOR I=1 TO 21
```

TRS-80 COLOR COMPUTER

Delete: 130

Change: 280 CLS 410 J=19-RND(13)-(D/10*RND(ABS(S-44)))-D/S 420 L=RND(2) 450 SOUND 173,3 680 CLS 760 PRINT I; 890 PRINT I; 940 FOR I=1 TO 23

Athlete Speedometer

The record holder in the 100-meter dash is often called "The World's Fastest Human." But how fast did he go? And how fast are other athletes going when they run or swim? Here's the speedometer that will tell you!

Sample Run

HOW FAST IS THAT SPEEDY OLYMPIC ATHLETE? I'LL LET YOU FIGURE IT OUT PRECISELY.

HOW IS THE RACE MEASURED: METERS, KILOMETERS, YARDS, OR MILES? METERS

HOW MANY METERS IS THE RACE? 100

USE COLONS AND DECIMAL POINT TO SEPARATE THE TIME: (3:45:20.2--NOT 3 HOURS,45 MINUTES,20.2 SECONDS)

WHAT IS THE ATHLETE'S TIME? 9.9

THE ATHLETE'S SPEED IS: 36.36364 KILOMETERS PER HOUR 22.60015 MILES PER HOUR

RUN

HOW FAST IS THAT SPEEDY OLYMPIC ATHLETE? I'LL LET YOU FIGURE IT OUT PRECISELY.

HOW IS THE RACE MEASURED: METERS, KILOMETERS, YARDS, OR MILES? KILOMETERS

HOW MANY KILOMETERS IS THE RACE? 10

USE COLONS AND DECIMAL POINT TO SEPARATE THE TIME: (3:45:20.2--NOT 3 HOURS,45 MINUTES,20.2 SECONDS)

WHAT IS THE ATHLETE'S TIME? 27:40.38

THE ATHLETE'S SPEED IS: 21.68283 KILOMETERS PER HOUR 13.47597 MILES PER HOUR

Program Listing

```
10 REM ATHLETE SPEEDOMETER
100 PRINT
110 PRINT "HOW FAST IS THAT SPEEDY OLYMPIC"
120 PRINT "ATHLETE? I'LL LET YOU FIGURE IT"
130 PRINT "OUT PRECISELY."
140 PRINT
150 PRINT "HOW IS THE RACE MEASURED:"
160 PRINT "METERS, KILOMETERS, YARDS, OR MILES?"
170 INPUT UŞ
180 T$=MID$(U$,1,2)
190 IF T$="YA" THEN C=.0009144
200 IF T$="MI" THEN C=1.609
210 IF TS="ME" THEN C=.001
220 IF T$="KI" THEN C=1
230 IF T$<>"YA" AND T$<>"MI" AND T$<>"ME" AND T$<>"KI"
    THEN 150
240 PRINT
250 PRINT "HOW MANY ";U$;" IS THE RACE";
260 INPUT D
270 PRINT
280 PRINT "USE COLONS AND DECIMAL POINT"
290 PRINT "TO SEPARATE THE TIME:"
300 PRINT "(3:45:20.2--NOT"
310 PRINT "3 HOURS, 45 MINUTES, 20.2 SECONDS)"
320 PRINT
330 PRINT "WHAT IS THE ATHLETE'S TIME";
340 INPUT A$
350 IF A$="" THEN 340
 36Ø N=1
370 FOR I=LEN(A$) TO 0 STEP -1
380 IF I=0 THEN 430
390 IF MID$(A$,I,1) <>"." THEN 420
400 N=0
410 GOTO 430
420 IF MID$(A$,I,1) <>":" THEN 500
430 IF N=0 THEN F=VAL(MID$(L$,1,1))
440 IF N=1 THEN S=VAL(L$)
450 IF N=2 THEN M=VAL(L$)
460 IF N=3 THEN H=VAL(L$)
470 N=N+1
480 L$=""
490 GOTO 510
500 L$=MID$(A$,I,1)+L$
 510 NEXT I
520 \text{ T}=H+(M/60)+(S/3600)+(F/36000)
530 PRINT
540 PRINT "THE ATHLETE'S SPEED IS:"
 550 PRINT C*D/T; " KILOMETERS PER HOUR"
560 PRINT C*D/T/1.609; " MILES PER HOUR"
```

☐ If You Have . . .

APPLE II

Add: 295 PRINT "TIME MUST BE ENCLOSED IN QUOTES";

ATARI

Add: 95 DIM U\$(11),T\$(2),A\$(11),L\$(11) 465 TX=Ø 505 L\$(TX)=A\$(I,I)

Change: 180 T\$=U\$(1,2) 390 IF A\$(I,I)<>"." THEN 420 420 IF A\$(I,I)<>":" THEN 500 430 IF N=0 THEN F=VAL(L\$(1,1)) 500 TX=TX+1

COMMODORE 64

Change: 280 PRINT "USE SEMICOLONS AND DECIMAL POINT" 300 PRINT "(3;45;20.2--NOT" 420 IF MID\$(A\$,I,1)<>";" THEN 500

COMMODORE VIC-20

Change: 160 PRINT "METERS, KILOMETERS, YARDS, OR MILES" 250 PRINT "HOW MANY ";U\$;" IS THE RACE" 280 PRINT "USE SEMICOLONS AND DECIMAL POINT" 300 PRINT "(3;45;20.2--NOT" 330 PRINT "WHAT IS THE ATHLETE'S TIME" 420 IF MID\$(A\$,I,1)<>";" THEN 500

TEXAS INSTRUMENTS 99/4A

Add: 195 C=.0009144

	215 225 435 445 455	C=1.609 C=.001 C=1 F=VAL(SEG\$(L\$,1,1)) S=VAL(L\$) M=VAL(L\$) H=VAL(L\$)
Change:	190 200 210	T\$=SEG\$(U\$,1,2) IF T\$<>"YA" THEN 200 IF T\$<>"MI" THEN 210 IF T\$<>"ME" THEN 220 IF T\$<>"KI" THEN 230 IF (T\$<>"YA")*(T\$<>"MI")*(T\$<>"ME")*(T\$<>"KI") THEN 150 (continued)

390 IF SEG\$(A\$,I,1) <>"." THEN 420
420 IF SEG\$(A\$,I,1) <>":" THEN 500
430 IF N<>0 THEN 440
440 IF N<>1 THEN 450
450 IF N<>2 THEN 460
460 IF N<>3 THEN 470
500 L\$=SEG\$(A\$,I,1) &L\$

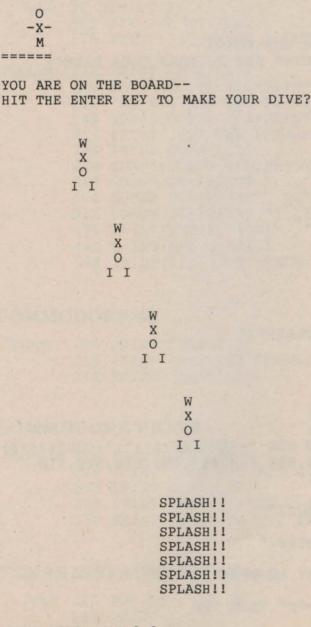
TRS-80 COLOR COMPUTER

Change: 340 LINE INPUT A\$

Gold Medal Diver

You're on the high board. Your knees feel weak. Will the judges award you a high score — or will you end up with no medal at all? Take the plunge and find out!

Sample Run



YOUR SCORE WAS 1.1 HOW AWFUL!

WANT TO TRY ANOTHER? NO

Program Listing

```
10 REM GOLD MEDAL DIVER
100 K=2
110 PRINT CHR$(12)
120 PRINT TAB(5);"O"
130 PRINT TAB(4);"-X-"
140 PRINT TAB(5); "M"
150 FOR A=1 TO 6
160 PRINT "=";
170 NEXT A
180 PRINT
190 PRINT
200 PRINT "YOU ARE ON THE BOARD -- "
210 PRINT "HIT THE ENTER KEY TO MAKE YOUR DIVE";
220 INPUT D$
230 PRINT CHR$(12)
240 IF K=17 THEN 340
250 FOR B=1 TO K
260 PRINT
270 NEXT B
280 PRINT TAB(K);" W "
290 PRINT TAB(K);" X "
300 PRINT TAB(K);" O "
310 PRINT TAB(K);"I I"
320 K=K+1
330 GOTO 230
340 FOR C=1 TO 25
350 PRINT
360 NEXT C
370 FOR D=1 TO 10
380 PRINT TAB(17); "SPLASH!!"
390 NEXT D
400 FOR E=1 TO 25
410 PRINT
420 NEXT E
430 A=INT(RND(1)*9)+1
440 B=INT(RND(1)*9)+1
450 PRINT "YOUR SCORE WAS "; CHR$(48+A); ". "; CHR$(48+B)
460 ON A GOTO 470,470,490,490,490,490,510,510,510
470 PRINT "HOW AWFUL!"
480 GOTO 520
490 PRINT "JUST AVERAGE!"
500 GOTO 520
510 PRINT "TERRIFIC DIVE!"
520 PRINT
530 PRINT "WANT TO TRY ANOTHER";
540 INPUT D$
550 IF MID$(D$,1,1) <>"N" THEN 100
```

☐ If You Have . . .

APPLE II

Change: 110 HOME 210 PRINT "HIT THE RETURN KEY TO MAKE YOUR DIVE" 230 HOME

ATARI

- Add: 95 DIM D\$(3) 565 FOR A=1 TO IDX 575 PRINT " ";:NEXT A:RETURN
- Change: 110 PRINT CHR\$(125) 120 IDX=5:GOSUB 565:PRINT "O" 130 IDX=4:GOSUB 565:PRINT "-X-" 140 IDX=5:GOSUB 565:PRINT "M" 210 PRINT "HIT THE RETURN KEY TO MAKE YOUR DIVE"; 230 PRINT CHR\$(125) 280 IDX=K:GOSUB 565:PRINT " W " 290 GOSUB 565:PRINT " X " 300 GOSUB 565:PRINT " O " 310 GOSUB 565:PRINT "I I" 430 A=INT(RND(0)*9)+1 440 B=INT(RND(0)*9)+1 550 IF D\$(1,1)<>"N" THEN 100

COMMODORE 64

Change: 110 PRINT CHR\$(147) 210 PRINT "HIT THE RETURN KEY TO MAKE YOUR DIVE"; 230 PRINT CHR\$(147)

COMMODORE VIC-20

Change: 110 PRINT CHR\$(147) 210 PRINT "HIT THE RETURN KEY TO MAKE YOUR DIVE" 230 PRINT CHR\$(147) 380 PRINT TAB(11); "SPLASH!!" 530 PRINT "WANT TO TRY ANOTHER"

TEXAS INSTRUMENTS 99/4A

Add: 215 FOR SP=1 TO 16 216 PRINT 217 NEXT SP 315 FOR SP=1 TO 17-K 316 PRINT 317 NEXT SP

(continued)

147

Change: 110 CALL CLEAR 230 CALL CLEAR 430 A=INT(RND*9)+1 440 B=INT(RND*9)+1 550 IF SEG\$(D\$,1,1)<>"N" THEN 100

TRS-80 COLOR COMPUTER

Change:	110	CLS				
	230	CLS				
	340	FOR	C=1	то	15	
	400	FOR	E=1	TO	15	
	430	A=RI	ND (9))		
	440	B=RM	ND (9))		

Steps to Success

The way to win a long race — or a short one — is to put one foot in front of the other, again and again! But how many times do you have to do it? This is the program that will figure it out!

Sample Run

HOW MANY STEPS WILL IT TAKE YOU TO RUN A RACE? I'LL FIGURE IT OUT FOR YOU.

HOW LONG IS YOUR STRIDE, MEASURED FROM THE HEEL OF ONE FOOT TO THE OTHER HEEL?

(IN INCHES AND DECIMALS--NO FRACTIONS, PLEASE)? 11.4

HOW IS THE RACE MEASURED--YARDS, MILES, METERS, KILOMETERS? METERS

HOW MANY METERS IS THE RACE? 5000

AT A STRIDE OF 11.4 INCHES, YOU WILL TAKE APPROXIMATELY 17267 STEPS IN A RACE 5000 METERS LONG.

RUN

HOW MANY STEPS WILL IT TAKE YOU TO RUN A RACE? I'LL FIGURE IT OUT FOR YOU.

HOW LONG IS YOUR STRIDE, MEASURED FROM THE HEEL OF ONE FOOT TO THE OTHER HEEL?

(IN INCHES AND DECIMALS--NO FRACTIONS, PLEASE)? 12.2

HOW IS THE RACE MEASURED--YARDS, MILES, METERS, KILOMETERS? YARDS

HOW MANY YARDS IS THE RACE? 100

AT A STRIDE OF 12.2 INCHES, YOU WILL TAKE APPROXIMATELY 295 STEPS IN A RACE 100 YARDS LONG.

Program Listing

```
10 REM STEPS TO SUCCESS
100 PRINT
110 PRINT "HOW MANY STEPS WILL IT TAKE YOU"
120 PRINT "TO RUN A RACE? I'LL FIGURE IT"
130 PRINT "OUT FOR YOU."
140 PRINT
150 PRINT "HOW LONG IS YOUR STRIDE,"
160 PRINT "MEASURED FROM THE HEEL OF"
170 PRINT "ONE FOOT TO THE OTHER HEEL?"
180 PRINT
190 PRINT "(IN INCHES AND DECIMALS--"
200 PRINT "NO FRACTIONS, PLEASE)";
210 INPUT S
220 IF S=0 THEN 190
230 PRINT
240 PRINT "HOW IS THE RACE MEASURED -- "
250 PRINT "YARDS, MILES, METERS, KILOMETERS?"
260 INPUT M$
270 L$=MID$(M$,1,2)
280 IF LS="YA" THEN C=36
290 IF L$="MI" THEN C=63360
300 IF L$="ME" THEN C=39.37
310 IF L$="KI" THEN C=39371.9
320 IF L$<>"YA" AND L$<>"MI" AND L$<>"ME" AND L$<>"KI"
    THEN 240
330 PRINT
340 PRINT "HOW MANY ";M$;" IS THE RACE";
350 INPUT N
360 PRINT
370 PRINT "AT A STRIDE OF ";S;" INCHES,"
380 PRINT "YOU WILL TAKE APPROXIMATELY"
390 PRINT INT(N*C/S);" STEPS"
400 PRINT "IN A RACE ";N;" ";M$;" LONG."
410 PRINT
```

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM M\$(11),L\$(2)

Change: 270 L\$=M\$(1,2)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 200 PRINT "NO FRACTIONS, PLEASE)" 250 PRINT "YARDS, MILES, METERS, KILOMETERS" 340 PRINT "HOW MANY ";M\$;" IS THE RACE"

TEXAS INSTRUMENTS 99/4A

Add:	295 3Ø5	C=36 C=6336Ø C=39.37 C=39371.9
Change:	28Ø 29Ø 3ØØ 31Ø	L\$=SEG\$(M\$,1,2) IF L\$<>"YA" THEN 290 IF L\$<>"MI" THEN 300 IF L\$<>"ME" THEN 310 IF L\$<>"KI" THEN 320 IF (L\$<>"YA")*(L\$<>"MI")*(L\$<>"ME")*(L\$<>"KI") THEN 240

TRS-80 COLOR COMPUTER

No Changes Required

Olympic Money

Dollars may make sense to you, but they can be confusing to a foreign visitor. This program will help clear up the mystery. Check a bank or the business section of your newspaper for the current exchange rates.

Sample Run

YOU'RE AN ATHLETE VISITING AMERICA FROM ANOTHER COUNTRY.

YOU WANT TO TAKE SOUVENIRS HOME BUT YOU NEED TO KNOW THE PRICE IN YOUR COUNTRY'S MONEY.

WHAT'S THE PRICE IN DOLLARS? 12.50

WHAT'S ONE UNIT OF YOUR CURRENCY CALLED? SHEKEL

HOW MANY SHEKELS TO THE DOLLAR? 80

YOU NEED 1000 SHEKELS TO BUY SOMETHING COSTING 12.50 DOLLARS.

RUN

YOU'RE AN ATHLETE VISITING AMERICA FROM ANOTHER COUNTRY.

YOU WANT TO TAKE SOUVENIRS HOME BUT YOU NEED TO KNOW THE PRICE IN YOUR COUNTRY'S MONEY.

WHAT'S THE PRICE IN DOLLARS? 5.49

WHAT'S ONE UNIT OF YOUR CURRENCY CALLED? ESCUDO

HOW MANY ESCUDOS TO THE DOLLAR? 123

YOU NEED 675.27 ESCUDOS TO BUY SOMETHING COSTING 5.49 DOLLARS.

Program Listing

10 REM OLYMPIC MONEY 100 PRINT "YOU'RE AN ATHLETE VISITING" 110 PRINT "AMERICA FROM ANOTHER COUNTRY." 120 PRINT 130 PRINT "YOU WANT TO TAKE SOUVENIRS HOME" 140 PRINT "BUT YOU NEED TO KNOW THE PRICE" 150 PRINT "IN YOUR COUNTRY'S MONEY." 160 PRINT 170 PRINT "WHAT'S THE PRICE IN DOLLARS"; 180 INPUT C 190 IF C=0 THEN 170 200 PRINT 210 PRINT "WHAT'S ONE UNIT OF" 220 PRINT "YOUR CURRENCY CALLED"; 230 INPUT F\$ 240 IF F\$="" THEN 210 250 PRINT 260 PRINT "HOW MANY ";F\$;"S" 270 PRINT "TO THE DOLLAR"; 280 INPUT D 290 IF D=0 THEN 260 300 PRINT 310 PRINT "YOU NEED ";C*D;" ";F\$;"S" 320 PRINT "TO BUY SOMETHING COSTING" 330 PRINT C;" DOLLARS." 340 PRINT

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM F\$(11)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 170 PRINT "WHAT'S THE PRICE IN DOLLARS" 220 PRINT "YOUR CURRENCY CALLED" 270 PRINT "TO THE DOLLAR"

TEXAS INSTRUMENTS 99/4A No Changes Required

TRS-80 COLOR COMPUTER No Changes Required

Olympic Medals

By now you've probably won a whole fistful of medals - but you haven't actually seen them. Now it's time for your own personal awards!

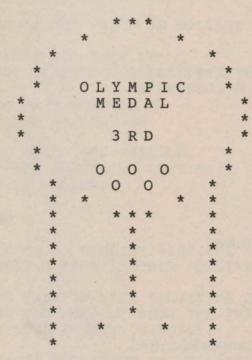
Sample Run

YOU ARE UP ON THE AWARDS PLATFORM.

YOU HAVE JUST WON AN OLYMPIC EVENT!

- 1 GOLD
- 2 SILVER
- 3 BRONZE

WHICH DID YOU WIN? 3



CONGRATULATIONS!! WANT TO TRY AGAIN? YES

GOLD

SILVER

YOU ARE UP ON THE AWARDS PLATFORM.

YOU HAVE JUST WON AN OLYMPIC EVENT!

154

1

2

3 BRONZE

WHICH DID YOU WIN? 1

					*	*	*					
			*						*			
		*								*		
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		*								*		

CONGRATULATIONS!! WANT TO TRY AGAIN? NO

Program Listing

```
10 REM OLYMPIC MEDALS
100 PRINT CHR$(12)
110 PRINT "YOU ARE UP ON THE AWARDS PLATFORM."
120 PRINT
130 PRINT "YOU HAVE JUST WON AN OLYMPIC EVENT!"
140 PRINT
150 PRINT TAB(5);"1";TAB(10);"GOLD"
160 PRINT TAB(5); "2"; TAB(10); "SILVER"
170 PRINT TAB(5); "3"; TAB(10); "BRONZE"
180 PRINT
190 PRINT "WHICH DID YOU WIN";
200 INPUT W$
210 IF VAL(W$) <1 OR VAL(W$) >3 THEN 190
220 FOR A=1 TO 20
230 READ AS
240 FOR B=1 TO 17
250 IF VAL(MID$(A$,B,1))>0 THEN 280
260 PRINT MID$(A$,B,1);
270 GOTO 330
                                                 (continued)
```

280 IF VAL(MID\$(A\$,B,1))>1 THEN 310 290 PRINT "*"; 300 GOTO 330 310 IF ASC(MID\$(A\$,B,1))>65 THEN 330 320 PRINT CHR\$(32); 330 NEXT B 340 PRINT 350 IF A<>7 THEN 420 360 ON VAL(W\$) GOTO 370,390,410 370 PRINT " * 1ST *" 380 GOTO 420 390 PRINT " 2ND * " 400 GOTO 420 410 PRINT " * * " 3RD 420 NEXT A 430 RESTORE 440 PRINT 450 PRINT TAB(3); "CONGRATULATIONS!!" 460 PRINT TAB(3); "WANT TO TRY AGAIN"; 470 INPUT ZS 480 IF MID\$(Z\$,1,1)<>"N" THEN 100 490 END 500 DATA 55555555111777777 510 DATA 4444444444445555 520 DATA 9999199999999166 530 DATA 777177777777718 540 DATA 2221220LYMPIC2212 550 DATA 3313333MEDAL33331 560 DATA 7717777777777771 570 DATA 6661444444444443 580 DATA 22215550505055515 590 DATA 77771777070777122 600 DATA 99991919999919166 610 DATA 22221333111222133 620 DATA 44441777713333155 630 DATA 44441777713333155 640 DATA 44441777713333155 650 DATA 44441777713333155 660 DATA 44441777713333155 670 DATA 44441777713333155 680 DATA 22221441333155133 690 DATA 55551666666666177

If You Have . . .

APPLE II

Change: 100 HOME

156

ATARI

Add:	95 DIM W\$(1),A\$(17),Z\$(3) 245 IF ASC(A\$(B,B))>64 THEN PRINT A\$(B,B); 246 IF ASC(A\$(B,B))>64 THEN 330 705 FOR A=1 TO IDX 715 PRINT " ";:NEXT A:RETURN
Change:	100 PRINT CHR\$(125)
	150 IDX=5:GOSUB 705:PRINT "1";:GOSUB 705:PRINT "GOLD"
	160 GOSUB 705:PRINT "2";:GOSUB 705:PRINT "SILVER"
	170 GOSUB 705:PRINT "3";:GOSUB 705:PRINT "BRONZE"
	250 IF VAL(A\$(B,B))>0 THEN 280
	260 PRINT A\$(B,B)
	280 IF VAL(A\$(B,B))>1 THEN 310
	310 REM
	450 IDX=3:GOSUB 705:PRINT "CONGRATULATIONS!!"
	460 GOSUB 705: PRINT "WANT TO TRY AGAIN";
	480 IF Z\$(1,1) <>"N" THEN 100

COMMODORE 64

Change: 100 PRINT CHR\$(147)

COMMODORE VIC-20

Delete: 640, 650

Change: 100 PRINT CHR\$(147) 190 PRINT "WHICH DID YOU WIN" 220 FOR A=1 TO 18 460 PRINT TAB(3); "WANT TO TRY AGAIN"

TEXAS INSTRUMENTS 99/4A

Add: 245 IF ASC(SEG\$(A\$,B,1))>64 THEN 310 315 GOTO 330

Change: 100 CALL CLEAR 210 IF (VAL(W\$)<1)+(VAL(W\$)>3) THEN 190 250 IF VAL(SEG\$(A\$,B,1))>0 THEN 280 260 PRINT SEG\$(A\$,B,1); 280 IF VAL(SEG\$(A\$,B,1); 280 IF VAL(SEG\$(A\$,B,1))>1 THEN 320 310 PRINT SEG\$(A\$,B,1); 480 IF SEG\$(2\$,1,1)<>"N" THEN 100

TRS-80 COLOR COMPUTER

Change: 100 CLS

Olympic Wrestler

Are you a paperweight? Even if you're a human being, the answer could well be yes. Grapple with this program, and you'll find out exactly where you belong in the world of Olympic wrestling.

Sample Run

WHAT KIND OF WRESTLER ARE YOU? STEP ON THE SCALES, PLEASE!

HOW MANY POUNDS DO YOU WEIGH? 113

YOU WEIGH 51.24716 KILOGRAMS.

YOU WEIGH MORE THAN 105 POUNDS (48 KILOGRAMS) BUT NOT MORE THAN 114 POUNDS (52 KILOGRAMS). YOU ARE A FLYWEIGHT WRESTLER.

RUN

WHAT KIND OF WRESTLER ARE YOU? STEP ON THE SCALES, PLEASE!

HOW MANY POUNDS DO YOU WEIGH? 222

YOU WEIGH MORE THAN 220 POUNDS (100 KILOGRAMS). YOU ARE A SUPER-HEAVYWEIGHT WRESTLER.

Program Listing

10 REM OLYMPIC WRESTLER 100 PRINT 110 PRINT "WHAT KIND OF WRESTLER ARE YOU?" 120 PRINT "STEP ON THE SCALES, PLEASE!" 130 PRINT 140 PRINT "HOW MANY POUNDS DO YOU WEIGH"; 150 INPUT W 160 IF W=0 THEN 140 170 PRINT 180 IF W>220 THEN 280 190 READ T 200 IF T=81 THEN 240 210 IF W<=T*2.205 THEN 240 220 M=T 230 GOTO 190 240 FOR I=1 TO 9 250 READ C\$ 260 NEXT I 270 GOTO 320 280 PRINT "YOU WEIGH MORE THAN 220 POUNDS." 290 PRINT "(100 KILOGRAMS)" 300 PRINT "YOU ARE A SUPER-HEAVYWEIGHT WRESTLER." 310 END 320 PRINT "YOU WEIGH ";W/2.205;" KILOGRAMS." 330 PRINT 340 PRINT "YOU WEIGH MORE THAN "; INT(M*2.205);" POUNDS" 350 PRINT "(";M;" KILOGRAMS)" 360 PRINT "BUT NOT MORE THAN "; INT(T*2.205);" POUNDS" 370 PRINT "(";T;" KILOGRAMS)." 380 PRINT "YOU ARE A ";C\$; "WEIGHT WRESTLER." 390 DATA 48,52,57,62,68 400 DATA 74,82,90,100 410 DATA PAPER, FLY 420 DATA BANTAM, FEATHER 430 DATA LIGHT, WELTER, MIDDLE 440 DATA LIGHT HEAVY, HEAVY

If You Have . . .

APPLE II No Changes Required

ATARI

Add: 95 DIM C\$(11)

COMMODORE 64 No Changes Required

COMMODORE VIC-20

Change: 140 PRINT "HOW MANY POUNDS DO YOU WEIGH"

TEXAS INSTRUMENTS 99/4A No Changes Required

TRS-80 COLOR COMPUTER No Changes Required

Basketball Action

Your team is playing the very last seconds of the final Olympic basketball game. Either side can win — but there's not much time left! Remember: just as on the court, the farther you are from the basket, the harder it is to make your shot. And don't forget that this is a game of teamwork. Put on your basketball shoes, and dribble away!

Sample Run

ENTER YOUR LAST NAME? DILLON ENTER THE LAST NAME OF A FRIEND? SPERBER THE LAST NAME OF ANOTHER FRIEND? MARTIN THE LAST NAME OF ANOTHER FRIEND? CROWLEY THE LAST NAME OF ANOTHER FRIEND? MARTINEZ

THE SCORE IS TIED: HOW MANY POINTS DOES EACH TEAM HAVE? 84

YOU'RE ON THE OLYMPIC BASKETBALL TEAM. THE FINAL GAME IS TIED WITH JUST 30 SECONDS LEFT TO PLAY.

YOUR TEAMMATES ARE: SPERBER MARTIN CROWLEY MARTINEZ

YOU'RE 7 FEET FROM THE BASKET. WHAT DO YOU DO NOW? 1: PASS 2: SHOOT 3: DRIVE TOWARD THE BASKET

QUICK! WHAT'S YOUR CHOICE? 1

WHO WILL YOU PASS TO? MARTIN MARTIN HAS THE BALL! MARTIN SHOOTS! THE BALL RIMS THE BASKET AND GOES IN! TWO POINTS!

THERE ARE 24 SECONDS LEFT. HIT THE ENTER KEY TO CONTINUE?

THE OPPOSING FORWARD HAS THE BALL.

AND MOVES DOWNCOURT. THE OPPOSING FORWARD SHOOTS! SWISH! TWO POINTS!

THERE ARE 14 SECONDS LEFT. HIT THE ENTER KEY TO CONTINUE?

DILLON HAS THE BALL. AND MOVES DOWNCOURT. YOU'RE 5 FEET FROM THE BASKET. WHAT DO YOU DO NOW? 1: PASS 2: SHOOT 3: DRIVE TOWARD THE BASKET

QUICK! WHAT'S YOUR CHOICE? 2

DILLON SHOOTS! THE BALL RIMS THE BASKET AND GOES IN! TWO POINTS!

THERE ARE 4 SECONDS LEFT. HIT THE ENTER KEY TO CONTINUE?

THE OPPOSING FORWARD HAS THE BALL. AND MOVES DOWNCOURT. THE OPPOSING FORWARD DRIVES TOWARD THE BASKET. TWO DEFENDERS BLOCK THE WAY AT 2 FEET FROM THE BASKET.

THE BUZZER SOUNDS! THE GAME IS OVER! YOUR TEAM WINS THE GOLD MEDAL!

Program Listing

10 REM BASKETBALL ACTION 100 TF\$="THE OPPOSING FORWARD" 110 PRINT "ENTER YOUR LAST NAME:" 120 INPUT Y\$ 130 IF Y\$="" THEN 110 140 B\$=Y\$ 150 FOR I=1 TO 4 160 IF I=1 THEN PRINT "ENTER THE LAST NAME OF A FRIEND:" 170 IF I<>1 THEN PRINT "THE LAST NAME OF ANOTHER FRIEND:" 180 IF I=1 THEN INPUT F1\$ 190 IF F1\$="" THEN 160 200 IF I=2 THEN INPUT F2\$ 210 IF I>1 AND F2\$="" THEN 170 220 IF I=3 THEN INPUT F3\$ (continued)

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```
230 IF I>2 AND F3$="" THEN 170
240 IF I=4 THEN INPUT F4$
250 IF I>3 AND F4$="" THEN 170
260 NEXT I
270 PRINT
280 PRINT "THE SCORE IS TIED:"
290 PRINT "HOW MANY POINTS DOES EACH TEAM HAVE?"
300 INPUT P
310 IF P=0 THEN 290
320 RANDOMIZE P
330 PRINT
340 \text{ S}=20+\text{INT}(\text{RND}(1)*30)
350 PRINT "YOU'RE ON THE OLYMPIC"
360 PRINT "BASKETBALL TEAM. THE FINAL GAME"
370 PRINT "IS TIED WITH JUST ";S; " SECONDS"
380 PRINT "LEFT TO PLAY."
390 PRINT
400 PRINT "YOUR TEAMMATES ARE:"
410 PRINT F1$
420 PRINT F2$
430 PRINT F3$
440 PRINT F4$
450 PRINT
460 J=INT(RND(1)*25)+1
470 PRINT "YOU'RE "; J; " FEET FROM THE BASKET."
480 PRINT "WHAT DO YOU DO NOW?"
490 PRINT "1: PASS"
500 PRINT "2: SHOOT"
510 PRINT "3: DRIVE TOWARD THE BASKET"
520 PRINT
530 PRINT "QUICK! WHAT'S YOUR CHOICE";
540 INPUT C
550 PRINT
560 IF C<1 OR C>3 THEN 480
570 IF C=1 THEN 600
580 IF C=2 THEN 980
590 IF C=3 THEN 1180
600 REM -----PASS SUBROUTINE-----
610 PRINT "WHO WILL YOU PASS TO";
620 INPUT P$
630 IF P$="" THEN 610
640 FOR I=1 TO 4
650 IF P$=F1$ THEN B$=F1$
660 IF P$=F2$ THEN B$=F2$
670 IF PS=F3S THEN BS=F3S
680 IF P$=F4$ THEN B$=F4$
690 IF P$<>F1$ AND P$<>F2$ AND P$<>F3$ AND P$<>F4$ THEN 760
700 NEXT I
710 IF 1+INT(RND(1)*10)<3 THEN 740
720 PRINT B$;" HAS THE BALL!"
730 GOTO 890
740 PRINT B$;" MISSES THE BALL!"
750 GOTO 780
760 PRINT "NO TEAMMATE BY THAT NAME!"
770 PRINT "YOU THROW THE BALL AWAY!"
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.

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780 S=S-1
790 GOTO 1330
800 REM ----TIME SUBROUTINE-----
810 S=S-1
820 IF S<1 THEN 1660
830 PRINT
840 PRINT "THERE ARE ";S;" SECONDS LEFT."
850 PRINT "HIT THE ENTER KEY TO CONTINUE";
860 INPUT X$
870 PRINT
880 RETURN
890 REM --- TEAMMATE'S BALL SUBROUTINE---
900 J = J - (INT(RND(1) * J))
910 IF 1+INT(RND(1)*10)<5 THEN 930
920 GOTO 980
930 PRINT B$;" PASSES TO ";Y$
940 B$=Y$
950 J=J-(INT(RND(1)*J))
960 GOSUB 800
970 GOTO 470
980 REM -----SHOOT SUBROUTINE-----
990 PRINT BS; " SHOOTS!"
1000 IF 1+INT(RND(1)*25)<J THEN 1120
1010 IF INT(RND(1)*2)<1 THEN 1050
1020 PRINT "THE BALL RIMS THE BASKET"
1030 PRINT "AND GOES IN!"
1040 GOTO 1060
1050 PRINT "SWISH!"
1060 PRINT "TWO POINTS!"
1070 IF B$<>TF$ THEN YP=YP+2
1080 IF B$=TF$ THEN TP=TP+2
1090 S=S-5
1100 GOSUB 800
1110 GOTO 1330
1120 PRINT "THE BALL BOUNCES OFF THE BACKBOARD"
1130 PRINT "AND RIMS THE BASKET"
1140 PRINT "BUT BOUNCES AWAY!"
1150 S=S+2
1160 GOSUB 800
1170 GOTO 1330
1180 REM -----DRIBBLE SUBROUTINE-----
1190 IF DRIB<1 THEN 1210
1200 IF INT(RND(1)*10)<5 THEN 1260
1210 PRINT B$;" DRIVES TOWARD THE BASKET."
1220 PRINT "TWO DEFENDERS BLOCK THE WAY"
1230 J=J-INT(RND(1)*J)
1240 PRINT "AT "; J; " FEET FROM THE BASKET."
1250 GOSUB 800
1260 IF INT(RND(1)*10)<2 THEN 1460
1270 IF INT(RND(1)*10)>4 THEN 1310
1280 PRINT "A STEAL!"
1290 DRIB=0
1300 GOTO 1330
1310 IF B$=Y$ THEN 470
1320 ON 1+INT(RND(1)*3) GOTO 980,1180,1460
                                                (continued)
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163
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1330 REM -----OPPONENTS' BALL-----
1340 IF B$<>TF$ THEN 1370
135Ø B$=Y$
1360 GOTO 1380
1370 B$=TF$
1380 PRINT
1390 PRINT B$;" HAS THE BALL."
1400 PRINT "AND MOVES DOWNCOURT."
1410 S=S-4
1420 J=INT(RND(1)*25)+1
1430 IF B$<>Y$ AND INT(RND(1)*10)<5 THEN 980
1440 IF B$<>Y$ THEN 1180
1450 GOTO 470
1460 REM -----FOUL SUBROUTINE-----
1470 PRINT "FOUL!"
1480 PRINT
1490 PRINT B$;" GETS TWO FOUL SHOTS!"
1500 PRINT "SHOT NUMBER"; F+1; ". . . "
1510 PRINT
1520 PRINT "HIT THE ENTER KEY FOR THE SHOT";
1530 INPUT X$
1540 IF INT(RND(1)*10)<8 THEN 1580
1550 PRINT "MISSED!"
1560 F=F+1
1570 GOTO 1620
1580 PRINT "MADE IT!"
1580 PRINT "MADE IT!"
1590 IF B$=TF$ THEN TP=TP+1
1600 IF B$<>TF$ THEN YP=YP+1
1610 F=F+1
1620 GOSUB 800
1630 IF F=1 THEN 1500
1640 F=0
1650 GOTO 1330
1660 PRINT
1670 PRINT "THE BUZZER SOUNDS!"
1680 PRINT "THE GAME IS OVER!"
1690 IF YP>TP THEN 1740
1700 IF YP=TP THEN 1760
1710 PRINT "YOUR TEAM LOSES THE FINAL GAME!"
1720 PRINT "YOU'LL HAVE TO SETTLE FOR SILVER."
1730 END
1740 PRINT "YOUR TEAM WINS THE GOLD MEDAL!"
1750 END
1760 PRINT "IT'S A TIE--"
1770 PRINT "PLAY A TIEBREAKER TO SEE WHO WINS!"
```

☐ If You Have . . .

APPLE II

Delete: 320

Change: 850 PRINT "HIT THE RETURN KEY TO CONTINUE"; 1520 PRINT "HIT THE RETURN KEY FOR THE SHOT";

ATARI

- Delete: 320
 - Add: 92 DIM Y\$(14), P\$(14), B\$(20), F1\$(14), F2\$(14), F3\$(14), F4\$(14) 94 DIM TF\$(20), X\$(1)

Change: 340 S=20+INT(RND(0)*30) 460 J=INT(RND(0)*25)+1 710 IF 1+INT(RND(0)*10)<3 THEN 740 850 PRINT "HIT THE RETURN KEY TO CONTINUE"; 900 J = J - (INT(RND(0) * J))910 IF 1+INT(RND(0)*10)<5 THEN 930 950 J=J-(INT(RND(0)*J))1000 IF 1+INT(RND(0)*25) < J THEN 1120 1010 IF INT(RND(0)*2)<1 THEN 1050 1200 IF INT(RND(0) *10) <5 THEN 1260 1230 J=J-INT(RND(0)*J) 1260 IF INT(RND(0)*10)<2 THEN 1460 1270 IF INT(RND(0)*10)>4 THEN 1310 1320 ON 1+INT(RND(0)*3) GOTO 980,1180,1460 1420 J=INT(RND(0)*25)+1 1430 IF B\$<>Y\$ AND INT(RND(0)*10)<5 THEN 980 1520 PRINT "HIT THE RETURN KEY FOR THE SHOT"; 1540 IF INT(RND(0)*10)<8 THEN 1580

COMMODORE 64

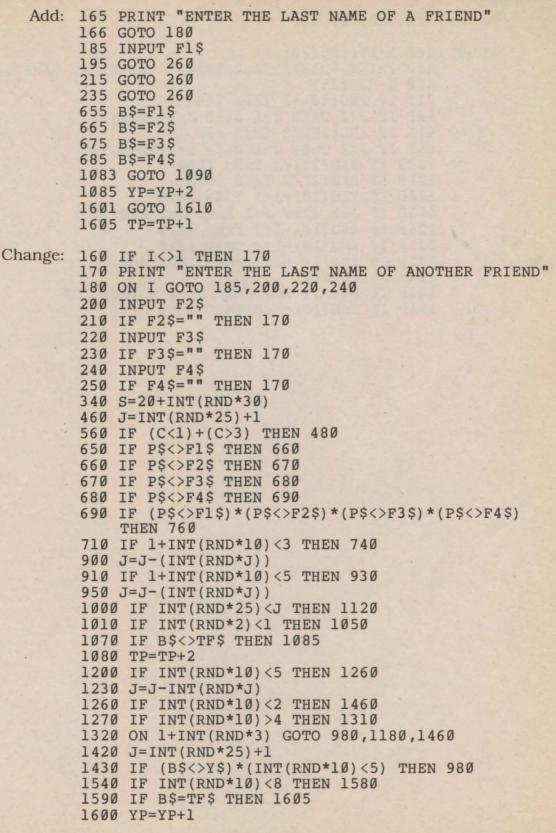
Delete: 320

Change: 340 S=20+INT(RND(0)*30) 460 J=INT(RND(0)*25)+1 710 IF 1+INT(RND(0)*10)<3 THEN 740 850 PRINT "HIT THE RETURN KEY TO CONTINUE"; 900 J=J-(INT(RND(0)*J)) 910 IF 1+INT(RND(0)*10)<5 THEN 930 950 J=J-(INT(RND(0)*J)) 1000 IF 1+INT(RND(0)*25)<J THEN 1120 1010 IF INT(RND(0)*25)<J THEN 1050 1200 IF INT(RND(0)*10)<5 THEN 1260 1230 J=J-INT(RND(0)*J) 1260 IF INT(RND(0)*10)<2 THEN 1460 (continued) 1270 IF INT(RND(0)*10)>4 THEN 1310
1320 ON 1+INT(RND(0)*3) GOTO 980,1180,1460
1420 J=INT(RND(0)*25)+1
1430 IF B\$<>Y\$ AND INT(RND(0)*10)<5 THEN 980
1520 PRINT "HIT THE RETURN KEY FOR THE SHOT";
1540 IF INT(RND(0)*10)<8 THEN 1580</pre>

COMMODORE VIC-20

Delete:	270,320,330,390,450,550,600,800,830,870,890,980, 1180,1330,1380,1460,1480,1510,1660
	1520 FRINT HIT THE REFORM REF FOR THE SHOT 1540 IF INT(RND(0)*10)<8 THEN 1580 1620 GOSUB 810 1650 GOTO 1340

TEXAS INSTRUMENTS 99/4A

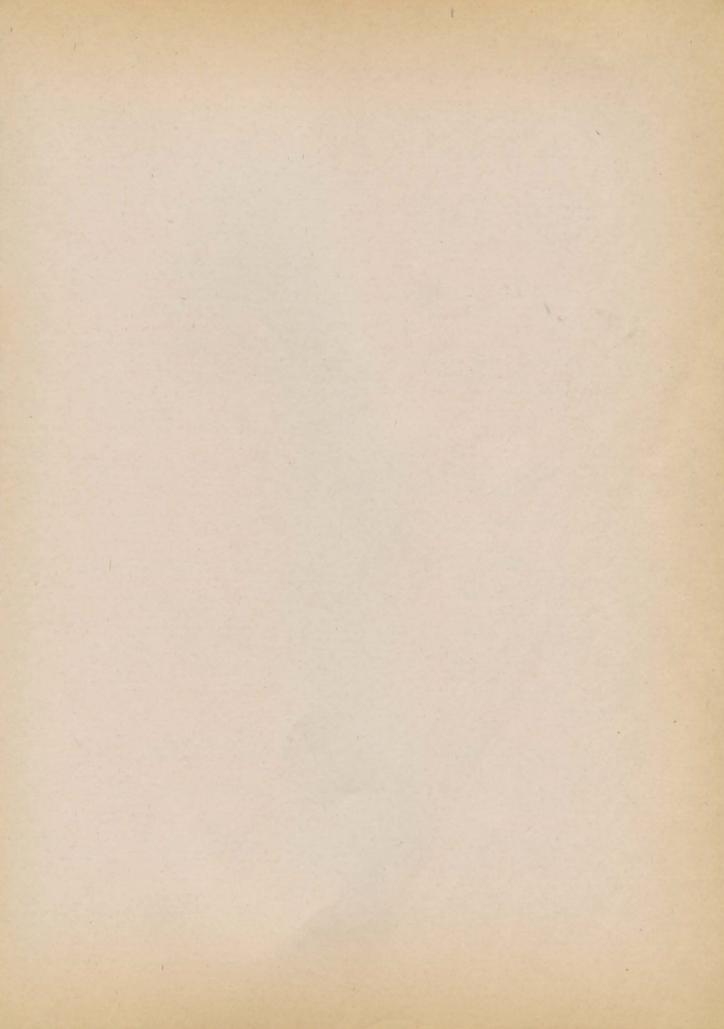


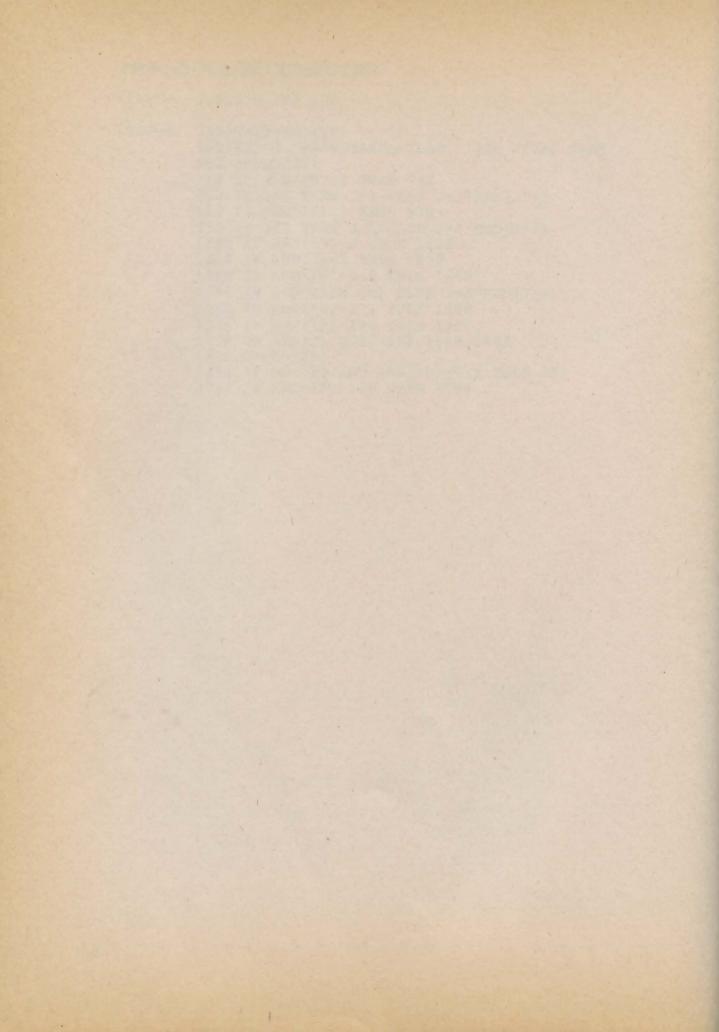
(continued)

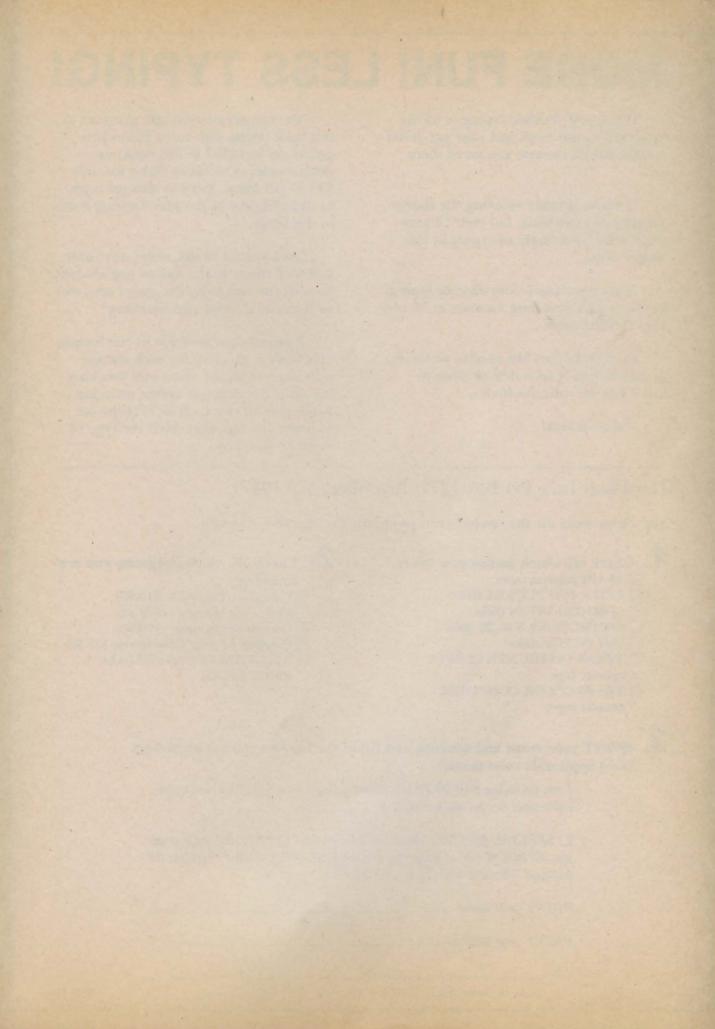
TRS-80 COLOR COMPUTER

Delete: 320,330,390,520

Change: 340 S=19+RND(30)360 PRINT "BASKETBALL TEAM. THE FINAL GAME"; 46Ø J=RND(25) 710 IF RND(10) <3 THEN 740 900 IF J<3 THEN J=1 ELSE J=J-RND(J)+1 910 IF RND(10)<5 THEN 930 950 IF J<3 THEN J=1 ELSE J=J-RND(J)+1 1000 IF RND(25) < J THEN 1120 1010 IF RND(2)<2 THEN 1050 1200 IF RND(10)-1<5 THEN 1260 1230 IF J<3 THEN J=1 ELSE J=J-RND(J)+1 1260 IF RND(10)-1<2 THEN 1460 1270 IF RND(10)-1>4 THEN 1310 1320 ON RND(3) GOTO 980,1180,1460 1420 J=RND(25) 1430 IF B\$<>Y\$ AND RND(10)-1<5 THEN 980 1540 IF RND(10)-1<8 THEN 1580







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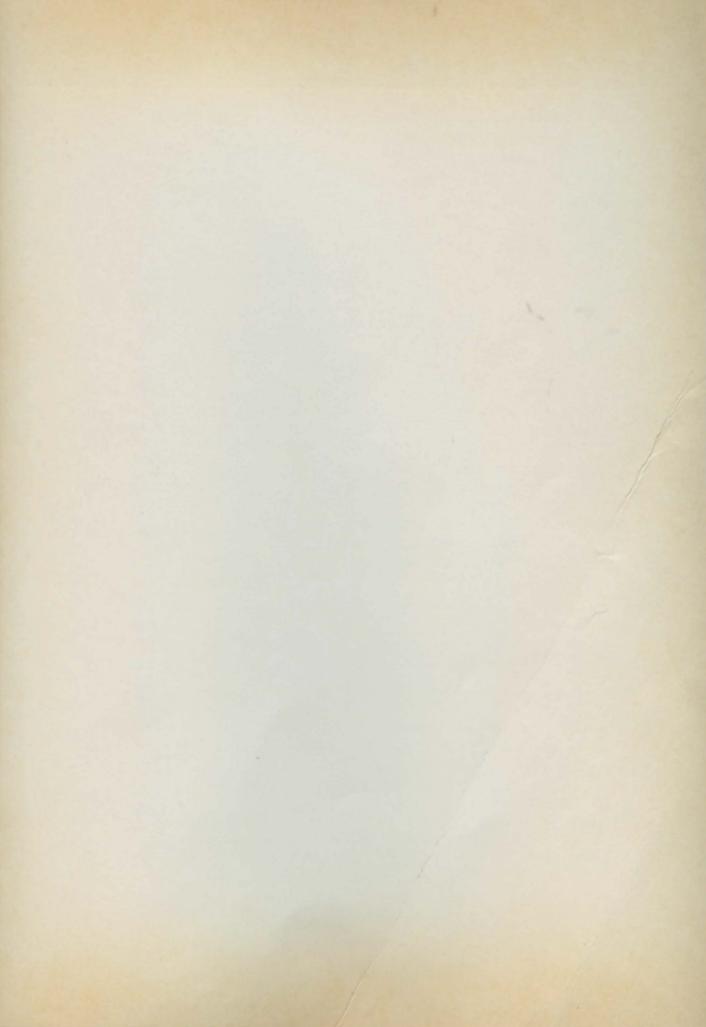
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