

# FAMILY COMPUTING

## Learning Logo Is a Family Affair

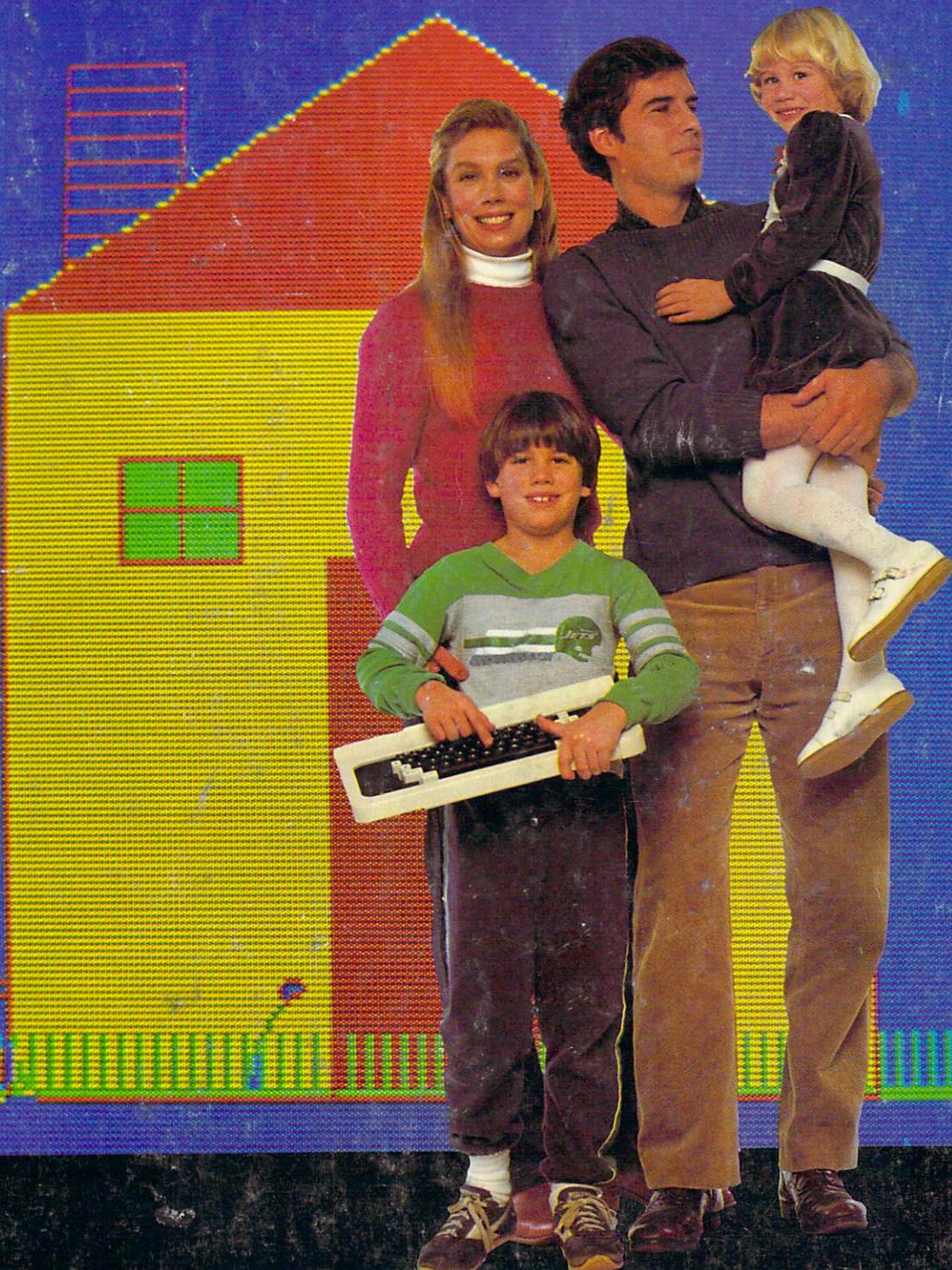
**How to  
Make Sure Your  
Computer Is  
Safe**

**A Mom and  
Data-Base  
Management**

**Don Bluth:  
Animation and  
the Games  
Revolution**

**More Original  
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**Buyers' Guide  
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and Software**



# FAMILY COMPUTING

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COVER: COMPUTER GRAPHICS CREATED BY JOHN JAINCHIGG USING LOGO; PHOTOGRAPH BY ANTHONY LOEW.

### 54 A NOVICES' GUIDE TO PROGRAMMING LANGUAGES

by Kenneth P. Goldberg

To make a computer work you need a program. To write a program you need to know a language. This survey of nine computer languages is all you need to know to figure out which—if any—language is right for you.

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by Mindy Pantiel and Becky Petersen

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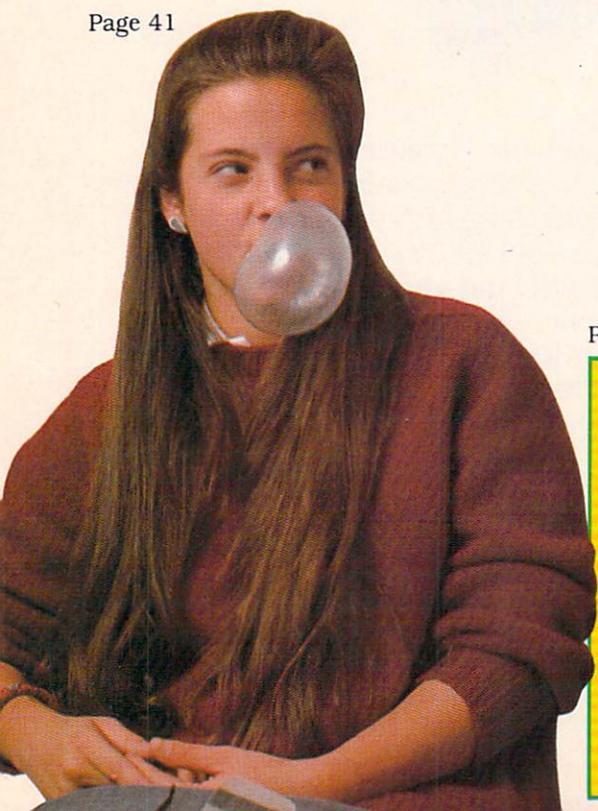
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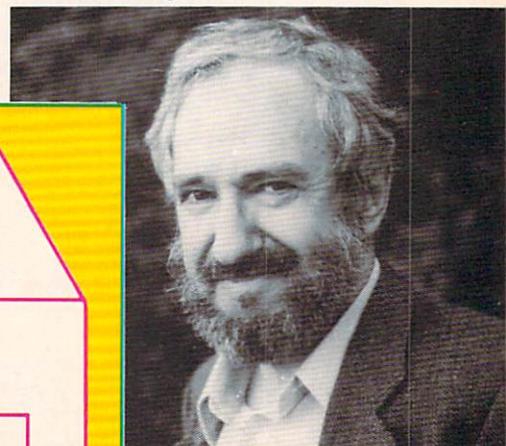
by Robin Raskin

Data-base-management programs can have endless applications. Karen Groseclose used hers to organize a high school reunion. But it's also part of Karen's everyday life, enabling her to participate in a wide variety of family and community activities.

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TO TRI	TO HOUSE
RT 30	SQUARE
FD 50	RT 90
RT 120	FD 50
FD 50	TRI
RT 120	LT 90
FD 50	FD 50
END	LT 90
TO DOOR	FD 15
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FD 20	SETH 0
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END	

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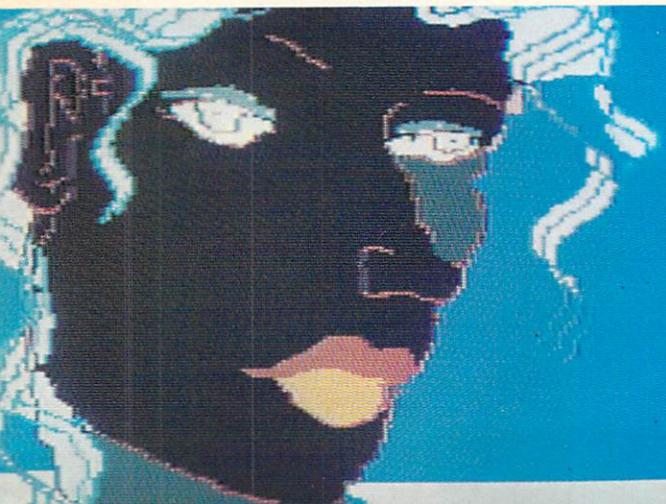
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# IF YOU'RE LIKE MOST BUY A SINGLE



## YOU'LL BUY LOTS OF SPINNAKER GAMES.

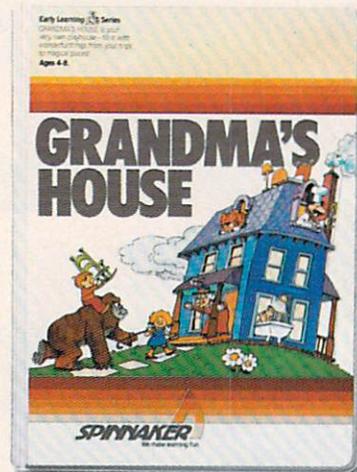
And not just because they're educational, but also because they happen to be a lot of fun to play.

In fact, they're so much fun, parents have been known to sneak in a few hours of play when the kids are asleep.

After all, if your kids are actually enjoying a learning game, there must be something to it. And there is: Fun, excitement and real educational value. That's what sets Spinnaker games apart from all the rest. And what brings parents back for more.

We offer a wide range of learning games for a wide range of age groups: 3 to 14. One look at these two pages will show you how we carefully designed our line of learning games to grow right along with your child.

So if you're looking for a line of learning games that are as much fun to play as they are to buy, consider Spinnaker Games. They're compatible with **Apple, Atari, IBM PC, PCjr, Commodore 64, Coleco Adam** and parents who don't mind their kids having fun while they learn.



**It's new! GRANDMA'S HOUSE™** is a magical playhouse.  
Ages 4 to 8.

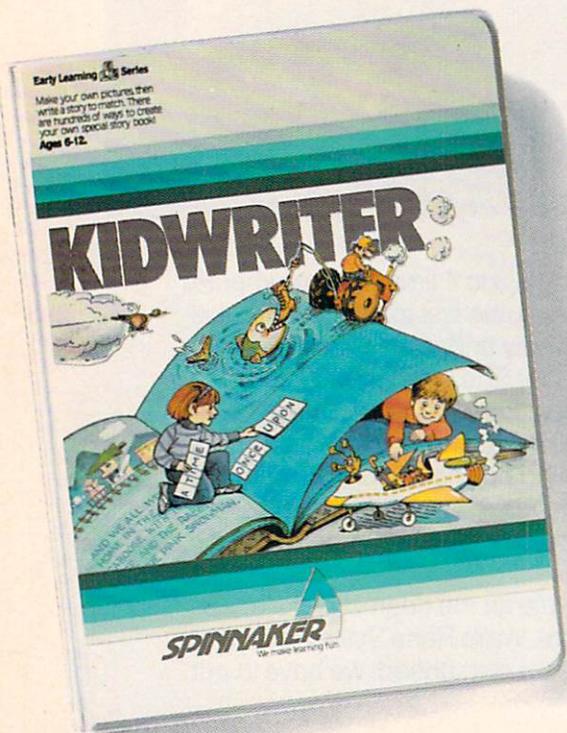
GRANDMA'S HOUSE is a very special place for your kids, because they can furnish it with lots of wonderful and unusual things from the magical places they'll visit.

GRANDMA'S HOUSE provides children with an imaginative way to exercise their creativity as they design their own perfect playhouse. You'll love watching your kids have fun with GRANDMA'S HOUSE—you can even join in and play it with them!

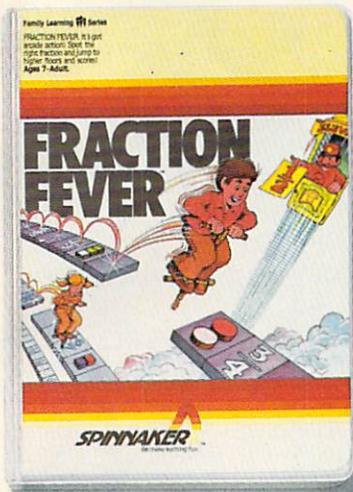
**It's new! KIDWRITER™** lets kids make their own storybook.  
Ages 6 to 10.

KIDWRITER gives children a unique new format for creating their own stories. With KIDWRITER, kids make colorful scenes, then add their own story lines. It's as versatile and exciting as your child's imagination!

Best of all, while it encourages children to create word and picture stories, it also introduces them to the fundamentals of word processing. KIDWRITER will bring out the storyteller in your children—and in you!



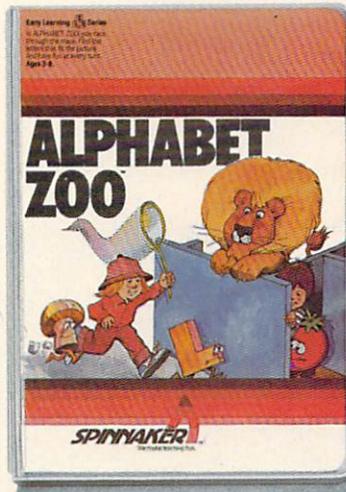
# PARENTS, YOU WON'T SPINNAKER GAME.



**FRACTION FEVER™** brings fractions into play. Ages 7 to Adult.

FRACTION FEVER is a fast-paced arcade game that challenges a child's understanding of fractions. As kids race across the screen in search of the assigned fraction, they're actually learning what a fraction is and about relationships between fractions.

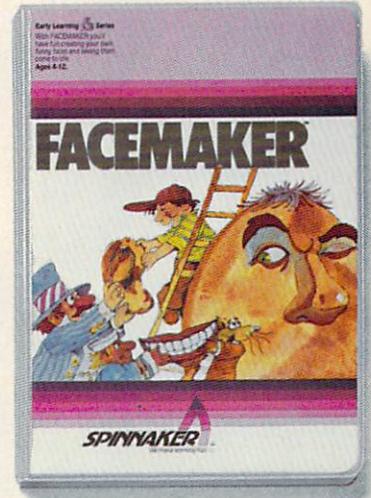
All in all, FRACTION FEVER encourages kids to learn as much as they can about fractions—just for the fun of it!



**ALPHABET ZOO™** is a trip through. Ages 3 to 8.

It's a race. It's a chase. It's Alphabet Zoo, a game that sends your kids zipping through the maze, after letters that fit the picture on the screen.

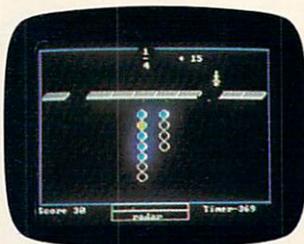
Your kids will have fun learning the relationship of letters and sounds, and sharpening their spelling skills. They'll be laughing at every turn.



**FACE MAKER™** makes faces fun. Ages 3 to 8.

FACE MAKER lets children create their own funny faces on the screen, then make them do all kinds of neat things: wink, smile, wiggle their ears, and more.

Plus, FACE MAKER helps familiarize children with such computer fundamentals as menus, cursors, simple programs, and graphics. FACE MAKER won't make parents frown because their children will have fun making friends with the computer.



**SPINNAKER™**  
We make learning fun.

Disks for: Apple, Atari, IBM PC and PCjr, Commodore 64.  
Cartridges for: Atari, IBM PCjr, Commodore 64, Coleco Adam.

# PERSONAL VALENTINE

BY JOEY LATIMER

It's Valentine's Day. Cancel the order for a dozen roses, return the chocolate hearts, and throw away the sappy cards. Turn your marvel of technology into a computing Cupid. Design a personalized message for that special someone.



## ADAM/Personal Valentine

```

100 HOME
120 PRINT "COMPUTER VALENTINE"
130 PRINT
140 PRINT "PRESS <RETURN> AFTER EACH REPLY."
160 PRINT
170 INPUT "WHAT IS YOUR NAME? ";n$
180 PRINT
190 PRINT "WHO IS THIS VALENTINE FOR?"
200 INPUT "(8 letters or fewer, please)";f$
210 IF LEN(f$)>8 THEN 200
240 GR
250 COLOR=6
260 FOR i=0 TO 39
270 VLIN 0,39 AT i
280 NEXT i
290 COLOR=9
300 L=3
310 GOSUB 2000
320 COLOR=4
330 L=11
340 GOSUB 2000
350 COLOR=0
360 HLIN 12,29 AT 37
370 HLIN 12,29 AT 36
380 HLIN 3,8 AT 13
390 HLIN 33,38 AT 13
400 HLIN 18,23 AT 5
410 COLOR=2
420 VLIN 36,37 AT 19
430 VLIN 36,37 AT 21
440 VTAB 20
450 HTAB 5
630 PRINT "MY HEART THROBS FOR YOU"
640 HTAB 15
650 PRINT f$;"!"
660 HTAB 19-(LEN(n$)/2)
670 PRINT "Love, ";n$
680 COLOR=INT(RND(1)*16)
700 GOSUB 1000
710 COLOR=9
720 GOSUB 1000
730 GOTO 680
1000 HLIN 17,18 AT 10
1010 HLIN 23,24 AT 10

```

```

1020 HLIN 17,18 AT 11
1030 HLIN 23,24 AT 11
1040 HLIN 16,19 AT 12
1050 HLIN 22,25 AT 12
1060 HLIN 16,19 AT 13
1070 HLIN 22,25 AT 13
1080 HLIN 16,25 AT 14
1090 HLIN 16,25 AT 15
1100 HLIN 17,24 AT 16
1110 HLIN 17,24 AT 17
1120 HLIN 18,23 AT 18
1130 HLIN 18,23 AT 19
1140 HLIN 18,23 AT 20
1150 HLIN 18,23 AT 21
1160 HLIN 19,22 AT 22
1170 HLIN 19,22 AT 23
1180 HLIN 20,21 AT 24
1190 HLIN 20,21 AT 25
1200 RETURN
2000 FOR i=1 TO L
2010 READ x1,y1,x2,y2
2020 FOR j=x1 TO x2
2030 VLIN y1,y2 AT j
2040 NEXT j
2050 NEXT i
2060 RETURN
3000 DATA 18,0,22,5,4,14,6,24,34,14,36,24,12,5,28,39,3
3010 DATA 11,7,13,4,9,10,11,6,7,8,9,8,6,10,9,10,5,12
3020 DATA 10,33,11,37,13,34,9,36,11,32,7,34,11,30,6,32
3030 DATA 11,28,5,30,10

```

## Apple/Personal Valentine

```

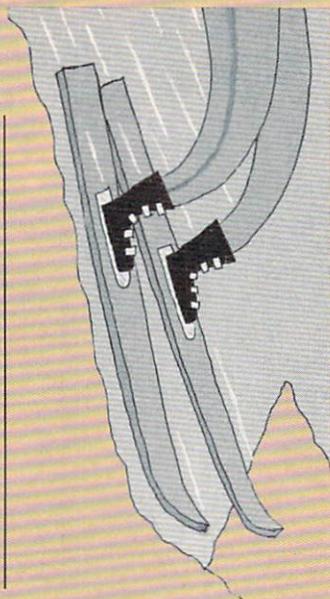
100 HOME
120 PRINT "COMPUTER VALENTINE"
130 PRINT
140 PRINT "PRESS <RETURN> AFTER EACH REPLY."
160 PRINT
170 INPUT "WHAT IS YOUR NAME? ";N$
180 PRINT
190 PRINT "WHO IS THIS VALENTINE FOR?"
200 INPUT "(8 LETTERS OR FEWER, PLEASE) ";F$
210 IF LEN(F$)>8 THEN 200
240 GR
250 COLOR=6
260 FOR I=0 TO 39
270 VLIN 0,39 AT I
280 NEXT
290 COLOR=9
300 L=3
310 GOSUB 2000
320 COLOR=4
330 L=11
340 GOSUB 2000
350 COLOR=0
360 HLIN 12,28 AT 37
370 HLIN 12,28 AT 36
380 HLIN 2,6 AT 14
390 HLIN 34,38 AT 14
400 HLIN 18,22 AT 5
410 COLOR=2
420 VLIN 36,37 AT 19
430 VLIN 36,37 AT 21
440 VTAB 23
450 FLASH
460 HTAB 8 - (LEN(F$)/2)
630 PRINT "MY HEART THROBS FOR YOU, ";F$;"!"
640 PRINT
650 HTAB 19 - (LEN(N$)/2):PRINT "LOVE, ";N$
680 COLOR=INT(RND(1)*16)
700 GOSUB 1000
710 COLOR=9
720 GOSUB 1000
730 GOTO 680
1000 HLIN 17,18 AT 10
1010 HLIN 23,24 AT 10

```

## SKI TREK

BY JOEY LATIMER

Are you appalled by standing in lift lines for hours to ski a three-minute run? Does just the thought of 30°-below-zero weather send shivers up and down your spine? Then pack away your skis, poles, and thermal underwear, pull up your favorite chair, pour a cup of hot chocolate, and bring out your hardware. Get ready for a tricky trek down a slick, tree-covered course. Remember, there's no snowplowing down this one. Ready? Whoooooosshhh!



## ADAM/Ski Trek

```

80 HOME
130 PRINT TAB(9);"THE SKI GAME"
140 FOR t=1 TO 1500
150 NEXT t
170 HOME
180 PRINT "YOU ARE THE SKIER: H"
190 PRINT
200 PRINT "FOR A HIGH SCORE,"
210 PRINT "SKI DOWN THE SLOPE"
220 PRINT "WITHOUT HITTING TREES."
230 PRINT
240 PRINT "USE THE JOYSTICK TO MOVE LEFT"
250 PRINT "OR RIGHT."
270 PRINT
280 PRINT "PRESS (RETURN) TO BEGIN."
290 INPUT r$
300 HOME
330 PRINT " GET READY!"
340 FOR t=1 TO 250
350 NEXT t
360 L=12
370 S=0
380 P=PDL(3)
400 A=INT(RND(1)*16)
410 FOR X=1 TO A
420 GOSUB 1000
440 PRINT TAB(X);CHR$(33);"           ";CHR$(33)
450 IF L<=X THEN 2000
460 NEXT X
470 FOR Y=A TO 1 STEP -1
480 GOSUB 1000
500 PRINT TAB(Y);CHR$(33);"           ";CHR$(33)
510 IF L>=Y+12 THEN 2000
520 NEXT Y
530 GOTO 400
1000 M=PDL(3)
1010 IF M<P THEN L=L-1
1020 IF M>P THEN L=L+1
1030 P=M
1040 HTAB L
1050 PRINT "H"
1060 S=S+1
1070 FOR t=1 TO 10
1080 NEXT t
1100 PRINT CHR$(8);CHR$(32)

```

```

1120 RETURN
2000 REM
2010 PRINT TAB(L);"*"
2030 PRINT
2050 PRINT " CRASH!"
2070 PRINT
2090 PRINT "YOU WENT ";S;"YARDS."
2100 IF S>H THEN H=S
2120 PRINT "THE HIGH SCORE IS";H;"."
2140 PRINT
2160 PRINT "PRESS (RETURN) TO PLAY AGAIN."
2180 INPUT r$
2210 GOTO 300

```

## Apple/Ski Trek

```

80 HOME
130 PRINT TAB(12)"THE SKI GAME"
140 FOR T = 1 TO 1500
150 NEXT T
170 HOME
180 PRINT "YOU ARE THE SKIER: H"
190 PRINT
200 PRINT "FOR A HIGH SCORE"
210 PRINT "SKI DOWN THE SLOPE"
220 PRINT "WITHOUT HITTING TREES."
230 PRINT
240 PRINT "PRESSING..."
250 PRINT "B MOVES YOU LEFT;"
260 PRINT "N MOVES YOU RIGHT."
270 PRINT
280 PRINT "PRESS (RETURN) TO BEGIN."
290 INPUT R$
300 HOME
330 PRINT " GET READY!"
340 FOR T = 1 TO 2500
350 NEXT T
360 L = 12
370 S = 0
400 A = INT(RND(1)*24)
410 FOR X = 1 TO A
420 GOSUB 1000
440 PRINT TAB(X); CHR$(33);"           "; CHR$(33)
450 IF L <= X THEN 2000
460 NEXT X
470 FOR Y = A TO 1 STEP -1
480 GOSUB 1000
500 PRINT TAB(Y); CHR$(33);"           "; CHR$(33)
510 IF L >= Y + 12 THEN 2000
520 NEXT Y
530 GOTO 400
1000 M = PEEK(-16384)
1010 IF M = 194 THEN L = L - 1
1020 IF M = 206 THEN L = L + 1
1040 HTAB(L)
1050 PRINT "H"
1060 S = S + 1
1070 FOR T = 1 TO 20
1080 NEXT T
1100 PRINT CHR$(8); CHR$(32)
1120 RETURN
2000 REM
2010 PRINT TAB(L);"*"
2030 PRINT
2050 PRINT " CRASH!"
2060 PRINT
2070 PRINT
2090 PRINT "YOU WENT "S" YARDS."
2100 IF S > H THEN H = S
2120 PRINT "THE HIGH SCORE IS "H"_"
2140 PRINT
2160 PRINT "PRESS (RETURN) TO PLAY AGAIN."
2180 INPUT R$
2210 GOTO 300

```

# A TRICKY COURTSHIP

BY BARRY BENDAR AND JUDY HEROLD

It's February 1955 and the Sodaville High School gym is decorated with pink cardboard hearts in preparation for the big Valentine's Day dance tomorrow night. All the kids in school are looking forward to going, but two juniors, Kurt and Dede, are especially excited. They've been eyeing each other across the room in chemistry class for months now, and see the dance as their big opportunity to make their secret feelings known.

Everyone knows Dede. She's the most popular girl in the school. She's pretty, self-assured, and flirtatious, and it seems like nearly every guy at Sodaville High has a crush on her. She's never alone; there's always some suitor trailing at her heels. Dede's parents are well aware of their daughter's attractiveness, and perhaps that's why they are especially strict with their popular daughter, and sometimes even snooty.

Dede's most recent suitor has been Bob, her brother's best friend and a senior at the school. Most girls would love to be handsome Bob's girlfriend, even though he is a terrible dancer. On the surface, cheerleader Dede and football star Bob seem like the perfect couple. But Dede's heart is elsewhere.

Kurt is different from the other boys, and that's why Dede likes him. He works after school and on weekends at a local gas station. Some kids think Kurt's a snob because he's always

by himself. But Dede prefers to think of him as an individual, as someone who doesn't need to follow the crowd. And now that Dede has noticed Kurt, her best friend, Clara, has developed a crush on him, too.

A blizzard is blowing outside, but that isn't going to stop any of the kids from going to the dance. The radio says it should clear up the day after the dance. Poor visibility caused Kurt to drive into a snow bank two nights ago, and he hopes to repair his car in time for the dance. The only thing he's dreading is the dancing itself; he's self-conscious and uncoordinated on the dance floor. But he'll suffer a few jitterbugs if it will help him win Dede's heart.

*True Love* requires two players, preferably of the opposite sex. The male should play the character of Kurt, and the female the character of Dede.

There are nine situations to move through, starting with how to get to the dance. When *True Love* is run, first the male player will be asked how he, as Kurt, should go to the dance. The computer screen will list three numbers, which match choices listed on this page. Once the male player has selected his choice and pressed the RETURN or ENTER key, the screen will clear, and the female, as Dede, will be asked to make her selection. There is only one correct choice for each. If one or both players make the wrong choice, both will be asked to try again before they can move on to the next situation.

If you make the right moves, romance will blossom by the end of the evening. But remember: There are a lot of things to consider in starting any new relationship, and all sorts of blunders can occur to thwart budding love.

The solution will appear in next month's issue.

## Base Version (Apple)/True Love

```

10 DIM ST$(18),ANS(54),SC(1),A(69):DUR = 20
20 FOR I = 1 TO 18:READ ST$(I):IF ST$(I) = "!" THEN ST$(I) = ST$(I - 1)
30 NEXT I
40 FOR I = 0 TO 28:READ A:POKE 768 + I,A:NEXT I
50 FOR I = 1 TO 54:READ ANS(I):NEXT I
60 FOR I = 0 TO 69:READ A(I):NEXT I
90 HOME:HTAB 10:FLASH:PRINT "A TRICKY COURTSHIP":CV = 0:GOSUB 2000:NORMAL
100 COUNT = 1:SC(0) = 1:SC(1) = 1
110 FOR LOOP = 0 TO 8
120 FOR INLP = 0 TO 1
130 HOME
140 IF INLP = 0 THEN WHO$ = "Kurt":$$ = "Boy's":RESP = LOOP * 6 + 1:GOTO 160
150 WHO$ = "Dede":$$ = "Girl's":RESP = LOOP * 6 + 4
160 PRINT WHO$;"":PRINT
170 R$ = ST$(COUNT):GOSUB 1000
180 FOR OP = RESP TO RESP + 2:PRINT INT(ANS(OP)):NEXT OP:PRINT
190 PRINT $$;" choice";:INPUT CHOICE
200 QR = ANS(RESP) - INT(ANS(RESP)):QZ = INT(10 * QR + 0.1):V = INT(ANS(QZ + RESP - 1))
210 IF CHOICE <> V THEN SC(INLP) = SC(INLP) + 1:ERFLG = 1
220 IF INLP <> 1 OR ERFLG = 0 THEN 260
230 INLP = 0:ERFLG = 0
240 COUNT = COUNT - 1
250 PRINT:PRINT "SOMEONE GOOFED!":FOR D = 1 TO 2000:NEXT D:GOTO 130
260 COUNT = COUNT + 1:NEXT INLP:CV = 30:GOSUB 2000:NEXT LOOP
270 HOME
280 FOR I = 0 TO 1
290 IF I = 0 THEN WHO$ = "Kurt":GOTO 310
300 WHO$ = "Dede"
310 IF SC(I) <= 3 THEN R$ = " You are Uncommonly Cool. Top marks in Romance."
320 IF SC(I) > 3 AND SC(I) < 9 THEN R$ = " In Romance, You're Pretty Cool."

```

- |  |  |
|--|--|
| 1. "I wonder if we'll get married?"                              | 28. Dance with Bob   |
| 2. Ask her if she's seeing Bob                                   | 29. Ask her to get some fresh air                            |
| 3. Mention what a lovely night it's been                         | 30. Park on nearby Lovers' Peak                              |
| 4. Suggest going for a drive                                     | 31. Ask her to the football game tomorrow                    |
| 5. Wait until Dede's alone to ask her to dance                   | 32. Hold her hand  |
| 6. Stand by the door   | 33. "I never thought this would happen!"                     |
| 7. Your straight skirt and new blue button-down cashmere sweater | 34. Maybe  |
| 8. Go alone in the family pickup truck                           | 35. Park and walk her to the front door                      |
| 9. Drive your family's Cadillac                                  | 36. Smile shyly and look the other way                       |
| 10. Your white blazer, red shirt, and slacks                     | 37. Dance with another girl                                  |
| 11. Stand by yourself  | 38. Stand by refreshment table with brother and Bob          |
| 12. Interrupt and ask Dede to dance                              | 39. Your new pink taffeta dress and high heels               |
| 13. Suggest driving gang to Burger Hop for late snack            | 40. Take your own Chevy                                      |
| 14. Invite Kurt in for a cup of hot chocolate                    | 41. Hop a ride with friends                                  |
| 15. No   | 42. Your red pants and white angora sweater                  |
| 16. Put your arm around her                                      | 43. Sit in the bleachers and survey the crowd                |
| 17. "I think I'm falling in love!"                               | 44. Talk to Bob but look distracted                          |
| 18. Yes  | 45. Lock eyes with Kurt                                      |
| 19. Park in front of her house                                   | 46. You're nervous, say nothing                              |
| 20. Mention you have to be home soon                             | 47. Ask her to go steady                                     |
| 21. Talk to your girlfriends                                     | 48. Lean over and kiss her                                   |
| 22. Immediately ask Dede to dance                                | 49. Pretend to ignore Kurt and continue talking              |
| 23. Your black leather jacket, white T-shirt, and jeans          | 50. Talk to your buddies                                     |
| 24. Get a ride in friend's new Thunderbird                       | 51. Suggest going bowling with your best friend and her date |
| 25. Get ride with brother and Bob                                | 52. Ask her girlfriends if they've seen her                  |
| 26. Your varsity jacket and corduroys                            | 53. Music starts up again, keep dancing                      |
| 27. Stand by bleachers with girlfriends                          | 54. Ask Dede's best friend to dance                          |

Had BARRY BENDAR and JUDY HEROLD gone to their own high school dances, they might have met earlier than in college, where, to their surprise, they discovered that they'd attended the same New Jersey high school. Barry is now a programmer/analyst for Bradford National Computer Services and Judy is a freelance writer. They've been going together for four years.

```

330 IF SC(I) >= 9 THEN RS = " Thoroughly Un-Cool! Better luc
k next time!"
340 PRINT WHO$;" ":"GOSUB 1000
350 NEXT I
360 PRINT:PRINT:PRINT "And remember ..."
370 CV = 0:DN = 1:GOSUB 2000:FOR I = 1 TO 400:NEXT I
380 HOME:HTAB 8:VTAB 10:PRINT "True Love Conquers All!"
390 FOR I = 1 TO 4:N = A(I + 65):POKE 8,N:POKE 6,100:CALL 768
:NEXT I
400 END
1000 IF LEN(RS) < 40 THEN PRINT RS:PRINT:RETURN
1010 FOR L = 1 TO 39:IF ASC(MID$(RS,L,1)) = 32 THEN J = L
1020 NEXT L
1030 PRINT LEFT$(RS,J):RS = RIGHT$(RS, LEN(RS) - J):GOTO 1000
2000 RP = A(CV):PL = A(CV + 1):CV = CV + 1
2010 FOR X = 1 TO RP:SA = CV:FOR Y = 1 TO PL:CV = CV + 1
2020 IF DN = 1 THEN DUR = DUR - .15
2030 IF INT(CV / 2) = CV / 2 THEN POKE 6,DUR * 2:GOTO 2050
2040 POKE 6,DUR
2050 POKE 8,A(CV):CALL 768
2060 NEXT Y:CV = SA:NEXT X:CV = CV + PL + 1:IF CV >= 65 THEN
RETURN
2070 GOTO 2000
4000 DATA The Valentine's Day dance is tomorrow. How should y
ou get to the dance?;!
4010 DATA What should you wear to the dance?;!
4020 DATA You've arrived at the dance and you want to find De
de. Should you

```

```

4030 DATA You've just arrived at the dance. Should you
4040 DATA Rock around the Clock is playing. Should you,!
4050 DATA A slow ballad comes on. Should you,!
4060 DATA It was heaven dancing together. Should you
4070 DATA Dancing together was wonderful. Should you
4080 DATA The moonlight is shining through the windshield. Sh
ould you,!
4090 DATA You wonder if she's really interested in you. Shoul
d you,You reply
4100 DATA How is your big moment. Should you,What are you thi
nking?
5000 DATA 165,8,74,133,10,164,8,173,48,192,136,234
5010 DATA 234,208,251,165,7,56,229,10,133,7,176,237
5020 DATA 198,6,208,233,96
6000 DATA 8.1,24.2,40.5,9.3,41.2,25.3,26.3,10.2,23.4
6010 DATA 39.3,7.4,42.1,6.2,43.1,52.3,38.1,27.3,11.2
6020 DATA 22.3,50.6,54.1,21.2,44.3,28.9,12.1,5.4,37.2
6030 DATA 45.1,49.2,36.2,4.1,29.3,13.1,20.1,51.3,53.1
6040 DATA 19.1,30.7,35.2,14.2,3.1,46.5,2.1,47.8,31.3
6050 DATA 15.1,34.3,18.4,16.3,32.1,48.3,1.3,33.9,17.2
7000 DATA 4,8,143,71,114,143,71,95,101,95
7010 DATA 2,8,107,53,86,107,53,72,76,72
7020 DATA 2,8,143,71,114,143,71,95,101,95
7030 DATA 1,16,95,63,75,95,107,129,122,114
7040 DATA 107,71,85,107,121,114,121,114
7050 DATA 1,16,146,71,116,146,107,146,102,71
7060 DATA 95,95,107,107,116,116,127,127
7070 DATA 95,46,56,75

```



Kurt



Dede



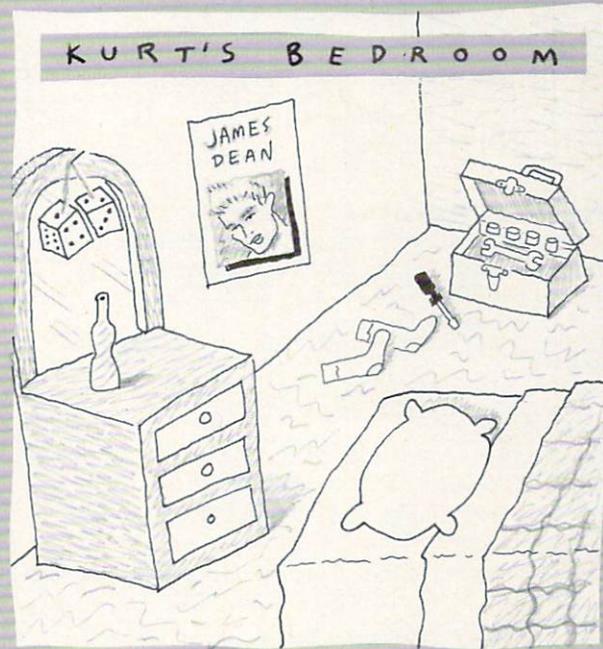
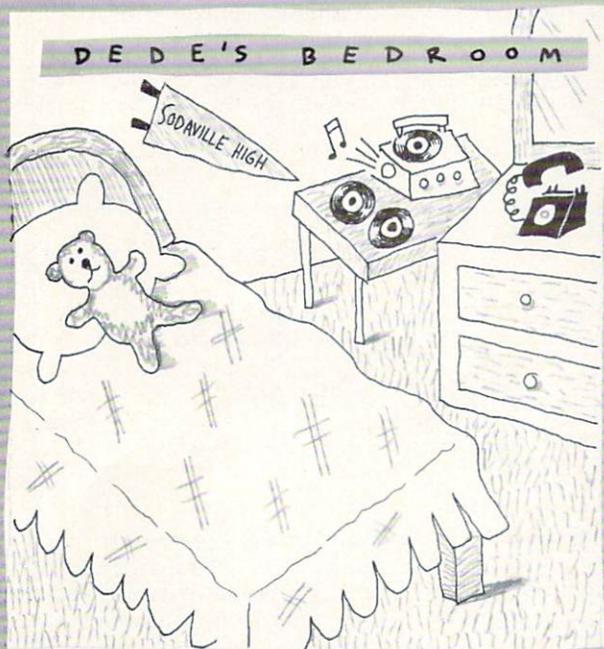
Bob



Dede's  
Brother



Clara



## PUZZLE

### MODIFICATIONS FOR OTHER COMPUTERS

#### ADAM/True Love

Use the base version, with the following alterations: Omit lines 40, 60, 380, 2000-2070, 5000-5020, and 7000-7070. In line 1000, change 40 to 31. In line 1010, change 39 to 30. Finally, change lines 90, 260, 370, and 390 to read as follows:

```
90 HOME:HTAB 8:PRINT "A TRICKY COURTSHIP":FOR D=1 TO 2500:NEXT D
260 count=count+1:NEXT inlp:NEXT loop
370 FOR D = 1 TO 2500:NEXT D
390 HOME:HTAB 3:VTAB 10:PRINT "True Love Conquers All!"
```

#### Atari/True Love

Use the base version, with the following alterations: Omit lines 2050 and 5000-5020. In line 1000, change 40 to 38. Finally, change lines 10-60, 90, 130, 170, 250, 270, 370-400, 1010, 1030, 2010-2040, 2060, and 7000-7070 to read as follows:

```
10 DIM ST$(672),S(19),R$(80),ANS(54),A(69),S$(6),WHO$(4),SC(1)
:POKE 752,1:VLM=15
20 FOR I=1 TO 18:S(I)=LEN(ST$)+1:READ R$:IF R$="" THEN ST$(S(I))=ST$(S(I-1)),S(I)-1):GOTO 40
30 ST$(S(I))=R$
40 NEXT I:S(I)=LEN(ST$)+1
50 FOR I=1 TO 54:READ A:ANS(I)=A:NEXT I
60 FOR I=0 TO 69:READ A:A(I)=A:NEXT I
90 PRINT CHR$(125):POSITION 10,0:PRINT "A TRICKY COURTSHIP":CV=0:GOSUB 2000
130 PRINT CHR$(125)
170 R$=ST$(S(COUNT)),S(COUNT+1)-1):GOSUB 1000
250 PRINT :PRINT "SOMEONE GOOFED!":FOR D=1 TO 500:NEXT D:GOTO 130
270 PRINT CHR$(125)
370 FOR I=1 TO 4:SOUND D,A(I+65),10,10
380 FOR D=1 TO 100:NEXT D:NEXT I
390 PRINT CHR$(125):POSITION 8,10:PRINT "True Love Conquers All!"
400 CV=0:DN=1:GOSUB 2000:END
1010 FOR L=1 TO 37:IF ASC(R$(L,L))=32 THEN J=L
1030 PRINT R$(1,J):R$=R$(J+1,LEN(R$)):GOTO 1000
2010 FOR X=1 TO RP:SA=CV:FOR Y=1 TO PL:CV=CV+1:VLM=VLM-(0.15*DN):IF VLM<0 THEN RETURN
2020 SOUND D,A(CV),10,VLM:SOUND 1,A(CV),10,VLM:SOUND 2,A(CV)+1,10,VLM
2030 IF INT(CV/2)=CV/2 THEN FOR D=1 TO 30:NEXT D:GOTO 2060
2040 FOR D=1 TO 15:NEXT D
2060 NEXT Y:CV=SA:NEXT X:CV=CV+PL+1:IF CV>=65 THEN SOUND 0,0,0,0:SOUND 1,0,0,0:RETURN
7000 DATA 4,8,162,81,128,162,81,108,114,108
7010 DATA 2,8,121,60,96,121,60,81,85,81
7020 DATA 2,8,162,81,128,162,81,108,114,108
7030 DATA 1,16,108,72,85,108,121,144,136,128
7040 DATA 121,81,96,121,136,128,136,128
7050 DATA 1,16,162,81,128,162,121,162,114,81
7060 DATA 108,108,121,121,128,128,144,144
7070 DATA 108,53,64,85
```

#### Commodore 64/True Love

Use the base version, with the following alterations: Omit lines 40 and 5000-5020. In line 10, change DUR=20 to PRINT CHR\$(14). Add lines 70-80 and 3000-3020:

```
70 FOR I=0 TO 24:POKE 54272+I,0:NEXT I
80 POKE 54296,15:POKE 54277,57:POKE 54278,128:POKE 53281,10:PRINT CHR$(144)
3000 HF=INT(N/256):LF=N-(HF*256)
3010 POKE 54273,HF:POKE 54272,LF
3020 POKE 54276,33:RETURN
```

Finally, change lines 90, 130, 250, 270, 370-400, 2020-2050, 4000, and 7000-7070 to read as follows:

```
90 PRINT CHR$(147):PRINT TAB(10) "A TRICKY COURTSHIP":CV=0:GOSUB 2000
130 PRINT CHR$(147)
250 PRINT:PRINT "SOMEONE GOOFED!":FOR D=1 TO 1000:NEXT D:GOTO 130
270 PRINT CHR$(147)
370 FOR I=1 TO 4:N=A(I+65):GOSUB 3000
380 FOR D=1 TO 500:NEXT D:POKE 54276,0:NEXT I
390 PRINT CHR$(147):PRINT TAB(255) TAB(248) "True Love Conquers All!"
400 CV=0:DN=1:GOSUB 2000:END
```

```
2020 N=A(CV):IF DN=1 THEN POKE 54296,INT((70-CV)/4.6)
2030 GOSUB 3000:IF INT(CV/2)=CV/2 THEN FOR D=1 TO 40:NEXT D:GOTO 2050
2040 FOR D=1 TO 10:NEXT D:IF DN=0 THEN FOR D=1 TO 15:NEXT D
2050 POKE 54276,0
4000 DATA The Valentine's Day Dance is tomorrow. How should you get there?
7000 DATA 4,8,1604,3212,2024,1604,3212,2408,2272,2408
7010 DATA 2,8,2144,4288,2700,2144,4288,3212,3032,3212
7020 DATA 2,8,1604,3212,2024,1604,3212,2408,2272,2408
7030 DATA 1,16,2408,3608,3032,2408,2144,1804,1908,2024
7040 DATA 2144,3212,2700,2144,1908,2024,1908,2024
7050 DATA 1,16,1604,3212,2024,1604,2144,1604,2272,3212
7060 DATA 2408,2408,2144,2144,2024,2024,1804,1804
7070 DATA 4816,9632,8096,6064
```

#### VIC-20 w/8K RAM Cartridge/True Love

Use the Commodore 64 modifications, with the following alterations: Omit lines 70, 80, and 3000-3020. In line 10, omit :PRINT CHR\$(14). In line 90, change TAB(10) to TAB(2). In line 390, change PRINT TAB(255) TAB(248) to PRINT TAB(220). In line 1000, change 40 to 22. In line 1010, change 39 to 21. In line 2040, change 10 to 20 and 15 to 30. Finally, change lines 370, 380, 2000-2030, 2060, and 7000-7070 to read as follows:

```
370 POKE 36874,0:POKE 36875,0:POKE 36878,15:FOR I=1 TO 4:POKE 36876,A(I+65)
380 FOR D=1 TO 300:NEXT D:NEXT I:FOR D=1 TO 500:NEXT D
2000 POKE 36878,15:RP=A(CV):PL=A(CV+1):CV=CV+1
2010 FOR X=1 TO RP:SA=CV:FOR Y=1 TO PL:CV=CV+1:IF DN=1 THEN POKE 36878,INT((70-CV)/4.6)
2020 POKE 36875,A(CV):POKE 36876,A(CV):POKE 36874,A(CV)+1
2030 IF INT(CV/2)=CV/2 THEN FOR D=1 TO 100:NEXT D:GOTO 2060
2060 NEXT Y:CV=SA:NEXT X:CV=CV+PL+1:IF CV>=65 THEN POKE 36878,0:RETURN
7000 DATA 4,8,175,215,191,175,215,201,199,201
7010 DATA 2,8,195,225,207,195,225,215,212,215
7020 DATA 2,8,175,215,191,175,215,201,199,201
7030 DATA 1,16,201,219,212,201,195,183,187,191
7040 DATA 195,215,207,195,187,191,187,191
7050 DATA 1,16,175,215,191,175,195,175,199,215
7060 DATA 201,201,195,195,191,191,183,183
7070 DATA 201,228,223,212
```

#### IBM PC/True Love

Use the base version, with the following alterations: Omit lines 40 and 5000-5020. In lines 130 and 270, change HOME to CLS. In line 1000, change 40 to 80. Finally, change lines 10, 90, 250, 380, 390, 1010, 2020-2050, and 7000-7070 to read as follows:

```
10 DIM ST$(20),ANS(54),SC(1),A(70):DR=2:KEY OFF
90 CLS:LOCATE ,31:COLOR 16,7:PRINT "A TRICKY COURTSHIP":COLOR 7,0:CV=0:GOSUB 2000
250 PRINT:PRINT "SOMEONE GOOFED!":FOR D=1 TO 1000:NEXT D:GOTO 130
380 CLS:LOCATE 12,28:COLOR 16,7:PRINT "True Love Conquers All!"
390 FOR I=1 TO 4:SOUND A(I+65),10:NEXT I
1010 FOR L=1 TO 79:IF ASC(MID$(R$,L,1))=32 THEN J=L
2020 IF DN=1 THEN DR=DR-.005
2030 IF INT(CV/2)=CV/2 THEN D=DR*2:GOTO 2050
2040 D=DR
2050 SOUND A(CV),D
7000 DATA 4,8,196,392,247,196,392,293,270,293
7010 DATA 2,8,261,523,329,261,523,392,360,392
7020 DATA 2,8,196,392,247,196,392,293,270,290
7030 DATA 1,16,293,440,360,293,261,220,230,246
7040 DATA 261,392,329,261,230,249,230,249
7050 DATA 1,16,196,392,246,196,261,196,275,392
7060 DATA 293,293,261,261,246,246,220,220
7070 DATA 293,587,493,363
```

#### TI-99/4A w/TI Extended BASIC/True Love

Use the base version, with the following alterations: First, use a double colon (::) instead of a single colon to separate multiple statements on a single numbered program line. So, for example, you would change line 20 to read

```
20 FOR I = 1 TO 18 :: READ ST$(I) :: IF ST$(I) = "" THEN ST$(I) = ST$(I - 1)
```