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TAXES
Your 1040 Made Easy

FAMILY COMPUTING

Telecomputing:

The New Wave in Communications

Buyer's Guides:
Modems and
Communications
Software

Helpful Hints:
Get the Most
From Your
Computer

Software to Bring
Learning to Life

Plus: **K-POWER**
Mini-Magazine for Kids

Inside: Original Programs
for ADAM, Apple, Atari,
Commodore 64 & VIC-20,
IBM, TI, Timex, TRS-80



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FAMILY COMPUTING®

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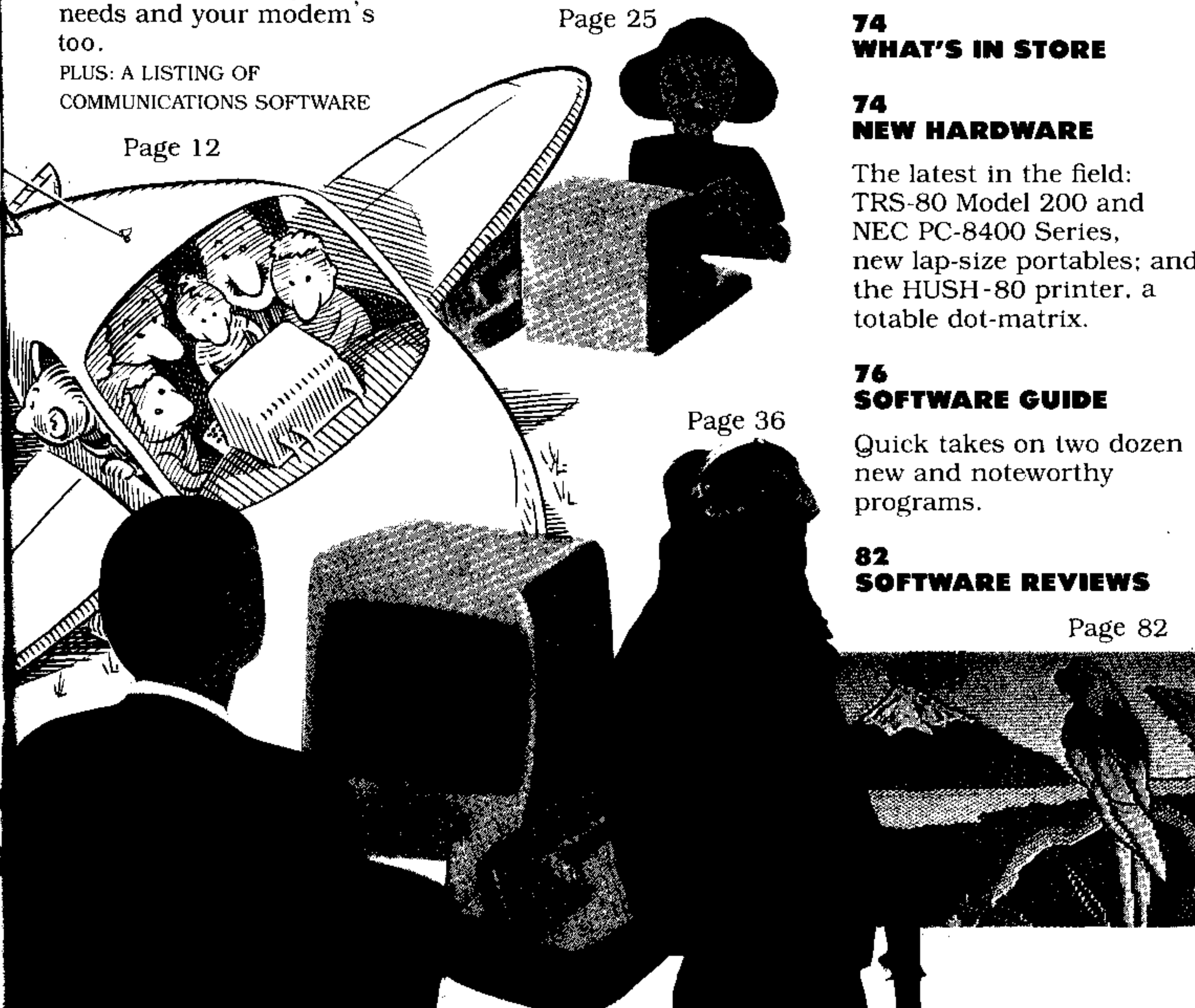


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COVER PHOTOGRAPH BY LANGDON CLAY



dore 64 by Prentice-Hall), *AppleWriter II* (for the Apple II series by Apple Inc.), *Symphony* (for IBM PC by Lotus Development Corp.), *Get Organized!* (for IBM PC by Electronic Arts), and *Hometerm* (for Atari, Apple, Commodore 64, and planned for IBM PCjr, from Batteries Included) are examples. With such programs, you can prepare text, go on-line, and transmit the text, all from one program.

Some of the better (and more expensive) communications programs, such as *ASCII Express* (for Apple II series and IBM PC by United Software), have built-in text editors. These editors do not rank as full-fledged word processors, but are useful for writing short notes, or cleaning up a file you've downloaded before printing it out.

SPECIAL FEATURES

There are some special software features that can make using your modem more enjoyable. If you use the conferencing or CB feature of CompuServe, or operate in a similar on-line environment where the words of several people appear on the screen at once, a "type-ahead window" gives you more flexibility. This window appears at the bottom of the screen and is a reserved area of two or three lines where you can type your next comment. Your text isn't sent until you press ENTER (or RETURN), and doesn't interfere with the incoming information, so you can continue to read on-screen what others are saying.

A real-time clock display is useful for keeping track of your on-line time. Programs such as *Hometerm* and *Personal Communications Manager* (for IBM PC and PCjr, by Microcom) display a running clock on the screen. This feature may save you from spending the rent money on an information service!

With menu-driven software, you can execute various tasks by choosing options. This type of software is generally easier to learn and use than command-driven software, which requires you to remember a long list of commands to type in. The latter can be a problem unless you have a good memory and use the software often. With some software, however, you can choose between menus or commands. If you plan to use the software often and are confident in your ability with a computer, look for software with this option. Operating with commands is cleaner and quicker than using menus.

"TEST DRIVE" BEFORE BUYING

If at all possible, try to test communications software before you buy. Make sure it has the features you want and isn't too difficult to use. You should be able to change settings quickly and easily. Opening and closing the buffer should be as convenient as possible, preferably using a single keystroke. You should be able to tell quickly how easy it is to navigate.

For example, when on-line, you may have to experiment with the duplex setting from time to time. There are two types of duplex: full and half. If the system you've called "echoes" your characters, you'll want to be in full duplex. If there's no echo, set your software to half duplex so you can see your own typing. If you're set to half duplex and receive an echo, you'll see a doubling of letters (e.g., HHEELPP). The cure is to switch to full duplex. Some programs allow you to change settings easily (*Hometerm*, *ASCII Express*), while others (such as *Apple Access* and *Personal Communications Manager*) require you to travel through a series of menus.

HAPPY TRAILS

Getting a modem and communications software to work well together can be a nettlesome affair, though it's getting easier all the time. Stick with it and dream of that first magic moment when you've dialed and see on your screen the words, "WELCOME TO MCI MAIL," or "CONNECT." ☐

COMMUNICATIONS SOFTWARE

SYSTEM	NAME/ COMPANY/PRICE	FILE TRANSFER	BUFFER SIZE	MACRO	MAX. BAUD	SIMUL. PRINTOUT
ADAM						
ADAM	ADAMLink (D/T) Coleco Industries Under \$100: w/modem	N ¹	8K	N	300	N
APPLE II						
IIc/e	Vidtex CompuServe \$39.95	B	12K	N	9600	N
II plus/c/e	ASCII Express United Software \$129.95	X	24K	Y	9600	Y
II plus/c/e	Netmaster 2.0 Zoom Telephonics \$69	S	42K	N	9600	N
II plus/c/e	Hometerm ² Batteries Included \$49.95	X	9K	Y	1200	N
IIc/e	Apple Access Apple Inc. \$75	X	3K	Y	9600	N
IIc/e (128K)	pfs: Access Software Publishing \$70	A	32K	N	1200	Y
ATARI						
32K	AMODEM 6.0 Public domain	X	12K	N	1200	N
48K	Hometerm ² Batteries Included \$49.95	X	7K	Y	1200	N
COMMODORE						
C 64	Vidtex (D/T) CompuServe \$39.95	B	30K	Y	600	N
C 64	Hometerm ² Batteries Included \$49.95	X	11K	Y	1200	N
C 64	XMODEM 64 Public domain	X	21K	N	300	N
RADIO SHACK						
Color Computer 32K	Vidtex (D/T) CompuServe \$39.95	B	12K	Y	600	N
Model III 48K	Vidtex CompuServe \$39.95	B	23K	Y	19200	Y
IBM						
PC & PCjr (128K)	Vidtex Professional Connection CompuServe \$59.95	B	16K	Y	1200	Y
PC & PCjr (128K)	ASCII Express United Software \$189.95	X	28K	Y	38400	Y
PC only (192K)	Smartcom 2.0 Hayes Inc. \$149	S	4K	Y	1200	Y
PC & PCjr (96K)	Crosstalk XVI ³ Microstuf \$195	X	66K	Y	9600	Y
PC & PCjr (128K)	Personal Commu- nications Manager IBM \$100	S	N/A	Y	9600	Y
PCjr (128K)	pfs: Access Software Publishing \$95	A	32K	Y	1200	Y
TI-99/4A						
Expansion Box and RS-232 Card	Emulator II Triton Products \$19.95	S	2K	N	300	N
TIMEX/SINCLAIR						
16K TS 1000/1500	ZCOMM 16/64K (T) \$149 (\$119 kit) with Byte-Back Modem	S	15-60 Screens	N	300	Y
TS2068	Spectra Term w/Byte-Back	S	30K	N	300	Y

¹New version will support downloading

²Part of Homepak (word processor, data base, communications program)

³CP/M version available; N/A = Information not available

N = None; B = B Protocol; X = XMODEM; S = Special; A = Text (ASCII) only
T = Tape; C = Cartridge; D = Disk; Unless noted, all programs are disk only

ZODIAC

BY JOHN JAINSCHIGG

When people ask "What's your sign?" they're talking astrology—a mystical discipline based on the astronomy of the sun and local constellations. The 12 constellations of the zodiac appear to lie along a ribbon of sky, called the ecliptic, that encircles the Earth. As Earth moves through its orbit in the course of the year, the sun appears to move along this corridor and through the constellations, one by one.

The ancients tried to use their knowledge of the sun and stars to predict earthly events—and many people today still believe in the power of the constellations to influence human affairs. But even if you don't believe in astrology, the forms of the constellations, their names, and their histories are fascinating. To help you with your stargazing, we've created *Zodiac*, a program that will show you what these constellations look like in the sky. It'll also teach you their names, their brightest stars, and the days of the year when the sun seems to travel through them. Then, if you like, it'll quiz you on what you've learned!

(Note: The dates tradi-



tionally used by astrologers are slightly different from the astronomically correct dates used in this program. Between November 30 and December 19, the sun appears to travel through the constellation Ophiuchus, which is not part of the astrological zodiac.)

ADAM/Zodiac

```

10 DIM na$(12),bs$(12),dt$(12,2),sn(12),str(12,18)
20 FOR x=1 TO 12
30 READ na$(x),bs$(x),dt$(x,1),dt$(x,2),sn(x)
40 FOR y=1 TO sn(x)
50 READ str(x,y)
60 NEXT y,x
70 HOME
80 PRINT TAB(13);"ZODIAC"
90 PRINT
100 PRINT "PRESS <V> TO VIEW THE"
110 PRINT "CONSTELLATIONS OF THE ZODIAC,"
120 PRINT "OR <Q> FOR A QUICK QUIZ,"
130 PRINT "OR <E> TO END THE PROGRAM."
140 GET k$
150 IF k$="E" OR k$="e" THEN END
160 IF k$<>"V" AND k$<>"Q" THEN 140
170 z=(k$="Q")
180 sc=0
190 FOR i=1 TO 12
200 IF z THEN x=INT(RND(1)*12)+1:GOTO 330
210 x=i
220 HOME
230 PRINT "THE SUN IS IN THE"
    
```

```

240 PRINT "CONSTELLATION ";na$(x)
250 PRINT "BETWEEN ";dt$(x,1);" AND ";dt$(x,2);"."
260 PRINT
270 PRINT na$(x);"S BRIGHTEST STAR IS"
280 PRINT bs$(x);"."
290 PRINT
300 PRINT "PRESS ANY KEY TO"
310 PRINT "VIEW ";na$(x);"."
320 GET k$
330 HOME
340 FOR y=1 TO sn(x)
350 q=INT(str(x,y)/31)
360 HTAB str(x,y)-q*31+1
370 VTAB q+1
380 PRINT CHR$(42+37*(y=1));
390 NEXT y
400 FOR d=1 TO 3000
410 NEXT d
420 IF NOT z THEN 550
430 HOME
440 PRINT "WHAT CONSTELLATION"
450 INPUT "WAS THAT?";r$
460 IF r$=na$(x) THEN sc=sc+1:PRINT "RIGHT!":GOTO 480
470 PRINT "NO, IT WAS ";na$(x);"."
480 PRINT "WHAT IS ITS"
490 INPUT "BRIGHTEST STAR?";r$
500 IF r$=bs$(x) THEN sc=sc+1:PRINT "RIGHT!":GOTO 520
510 PRINT "NO, IT IS ";bs$(x);"."
520 PRINT
530 PRINT "PRESS ANY KEY TO CONTINUE."
540 GET k$
550 NEXT i
560 IF NOT z THEN 70
570 HOME
580 PRINT "YOUR SCORE WAS ";sc;" OUT OF 24."
590 PRINT "THAT'S ";INT((sc/24)*100);" PERCENT CORRECT"
600 PRINT
610 PRINT "PRESS ANY KEY TO CONTINUE."
620 GET k$
630 GOTO 70
1000 DATA CAPRICORN,ALGEDI,1/20,2/18,13,121,213,335
1010 DATA 579,639,574,508,412,285,318,322,326,208
1020 DATA AQUARIUS,SADALMELIK,2/17,3/13,12,80,336,637
1030 DATA 138,13,74,72,315,625,715,373,372
1040 DATA PISCES,ALRISCHA,3/13,4/19,18,620,562,563,504
1050 DATA 505,508,516,550,643,677,585,521,438,287,196
1060 DATA 133,70,10
1070 DATA ARIES,HAMAL,4/19,5/15,7,482,609,671,283,268
1080 DATA 107,48
1090 DATA TAURUS,ALDEBARAN,5/14,6/21,13,265,174,237
1100 DATA 298,331,8,126,460,513,580,677,463,557
1110 DATA GEMINI,CASTOR,6/21,7/21,16,75,77,22,174,397
1120 DATA 495,587,233,232,292,228,382,512,578,739,735
1130 DATA CANCER,BETA CANCRI,7/21,8/11,5,739,50,329
1140 DATA 453,698
1150 DATA LEO,REGULUS,8/12,9/16,14,580,741,426,360,236
1160 DATA 55,119,153,731,687,504,497,318,351
1170 DATA VIRGO,SPICA,9/21,11/1,12,668,567,458,430,370
1180 DATA 245,246,331,143,419,353,345
1190 DATA LIBRA,ZUBEN ELGENUBI,11/1,11/22,6,296,42,224
1200 DATA 634,658,720
1210 DATA SCORPIO,ANTARES,11/23,11/30,15,329,269,56
1220 DATA 119,274,367,359,450,512,573,694,659,532,470
1230 DATA 411
1240 DATA SAGITTARIUS,NUNKI,12/19,1/19,14,229,41,289
1250 DATA 294,266,383,422,239,485,487,576,670,659,687
    
```

Apple/Zodiac

```

10 DIM NA$(12),BS$(12),DTS(12,2),SN(12),STR(12,18)
20 FOR X = 1 TO 12
30 READ NA$(X),BS$(X),DTS(X,1),DTS(X,2),SN(X)
40 FOR Y = 1 TO SN(X)
50 READ STR(X,Y)
60 NEXT Y,X
    
```


BEGINNER PROGRAM

```

60 READ NAS(X),BSS(X),DTS(X,1),DTS(X,2),SN(X)
70 FOR Y=1 TO SN(X)
80 READ STR(X,Y)
90 NEXT Y,X
100 CLS
110 PRINT TAB(18);"ZODIAC"
120 PRINT
130 PRINT "PRESS <V> TO VIEW THE"
140 PRINT "CONSTELLATIONS OF THE ZODIAC,"
150 PRINT "<Q> FOR A QUICK QUIZ,"
160 PRINT "OR <E> TO END THE PROGRAM.:"
170 KS=INKEY$
180 IF KS="E" THEN END
190 IF KS<>"V" AND KS<>"Q" THEN 170
200 Z=(KS="Q")
210 SC=0
220 FOR I=1 TO 12
230 IF Z THEN X=INT(RND(1)*12)+1:GOTO 330 ELSE X=I
240 CLS
250 PRINT "THE SUN IS IN THE CONSTELLATION"
260 PRINT NAS(X);" BETWEEN ";DTS(X,1);" AND ";DTS(X,2)
;"-"
270 PRINT
280 PRINT NAS(X);"'S BRIGHTEST STAR IS"
290 PRINT BSS(X);"."
300 PRINT
310 PRINT "PRESS ANY KEY TO VIEW ";NAS(X);"."
320 IF INKEY$="" THEN 320
330 CLS
340 FOR Y=1 TO SN(X)
350 Q=INT(STR(X,Y)/40)
360 LOCATE Q+1,STR(X,Y)-Q*40+1:PRINT CHR$(42+27*(Y=1))
;
370 NEXT Y
380 FOR D=1 TO 2500
390 NEXT D
400 IF NOT Z THEN 530
410 CLS
420 PRINT "WHAT CONSTELLATION"
430 INPUT "WAS THAT";RS
440 IF RS=NAS(X) THEN SC=SC+1:PRINT "RIGHT!":GOTO 460
450 PRINT "NO, IT WAS ";NAS(X);"."
460 PRINT "WHAT IS ITS"
470 INPUT "BRIGHTEST STAR";RS
480 IF RS=BSS(X) THEN SC=SC+1:PRINT "RIGHT!":GOTO 500
490 PRINT "NO, IT IS ";BSS(X);"."
500 PRINT
510 PRINT "PRESS ANY KEY TO CONTINUE."
520 IF INKEY$="" THEN 520
530 NEXT I
540 IF NOT Z THEN 100
550 CLS
560 PRINT "YOUR SCORE WAS";SC;"OUT OF 24."
570 PRINT "THAT'S";INT((SC/24)*100);"PERCENT CORRECT."
580 PRINT
590 PRINT "PRESS ANY KEY TO CONTINUE."
600 IF INKEY$="" THEN 600 ELSE 100
1000 DATA CAPRICORN,ALGEDI,1/20,2/18,13,156,275,432
1010 DATA 747,825,740,655,531,368,410,415,421,269
1020 DATA AQUARIUS,SADALMELIK,2/17,3/13,12,103,433
1030 DATA 822,178,17,95,93,407,807,922,481,480
1040 DATA PISCES,ALRISCHA,3/13,4/19,18,800,725,727,650
1050 DATA 652,655,666,710,830,874,755,672,565,370,253
1060 DATA 172,90,13
1070 DATA ARIES,HAMAL,4/19,5/15,7,622,786,866,365,346
1080 DATA 138,62
1090 DATA TAURUS,ALDEBARAN,5/14,6/21,13,342,224,306
1100 DATA 384,427,10,163,593,662,748,873,598,719
1110 DATA GEMINI,CASTOR,6/21,7/21,16,97,99,29,224,512
1120 DATA 639,757,300,299,377,294,493,661,746,954,949
1130 DATA CANCER,BETA CANCRI,7/21,8/11,5,954,64,425
1140 DATA 584,900
1150 DATA LEO,REGULUS,8/12,9/16,14,749,956,550,464
1160 DATA 305,71,153,197,943,887,650,641,410,453
1170 DATA VIRGO,SPICA,9/21,11/1,12,862,732,591,555
1180 DATA 455,445,478,318,317,427,185,541

```

```

1190 DATA LIBRA,ZUBEN ELGENUBI,11/1,11/22,6,382,54
1200 DATA 289,818,849,929
1210 DATA SCORPIO,ANTARES,11/23,11/30,15,425,347,72
1220 DATA 154,353,473,463,581,660,739,895,850,687,607
1230 DATA 530
1240 DATA SAGITTARIUS,NUNKI,12/19,1/19,14,296,53,373
1250 DATA 379,343,494,544,308,626,628,743,865,850,886

```

TI-99/4A/Zodiac

```

10 DIM NAS(12),BSS(12),DTS(12,2),SN(12),STR(12,18)
20 RANDOMIZE
30 CALL SCREEN(2)
40 FOR X=1 TO 8
50 CALL COLOR(X,16,1)
60 NEXT X
70 FOR X=1 TO 12
80 READ NAS(X),BSS(X),DTS(X,1),DTS(X,2),SN(X)
90 FOR Y=1 TO SN(X)
100 READ STR(X,Y)
110 NEXT Y
120 NEXT X
130 CALL CLEAR
140 PRINT TAB(12);"ZODIAC"
150 PRINT
160 PRINT "PRESS <V> TO VIEW THE"
170 PRINT "CONSTELLATIONS OF"
180 PRINT "THE ZODIAC,"
190 PRINT "<Q> FOR A QUICK QUIZ,"
200 PRINT "OR <E> TO END THE PROGRAM."
210 CALL KEY(3,K,S)
220 IF K<>69 THEN 240
230 END
240 IF (K<>81)*(K<>86) THEN 210
250 Z=(K=81)
260 SC=0
270 FOR I=1 TO 12
280 IF Z=0 THEN 310
290 X=INT(RND*12)+1
300 GOTO 440
310 X=I
320 CALL CLEAR
330 PRINT "THE SUN IS IN THE"
340 PRINT "CONSTELLATION ";NAS(X)
350 PRINT "BETWEEN ";DTS(X,1);" AND ";DTS(X,2);"."
360 PRINT
370 PRINT NAS(X);"'S BRIGHTEST STAR"
380 PRINT "IS ";BSS(X);"."
390 PRINT
400 PRINT "PRESS ANY KEY"
410 PRINT "TO VIEW ";NAS(X);"."
420 CALL KEY(3,K,S)
430 IF S=0 THEN 420
440 CALL CLEAR
450 FOR Y=1 TO SN(X)
460 Q=INT(STR(X,Y)/32)
470 CALL HCHAR(Q,STR(X,Y)-Q*32+1,42-37*(Y=1),1)
480 NEXT Y
490 FOR D=1 TO 1400
500 NEXT D
510 IF Z=0 THEN 710
520 CALL CLEAR
530 PRINT "WHAT CONSTELLATION"
540 INPUT "WAS THAT?":RS
550 IF RS<>NAS(X) THEN 590
560 SC=SC+1
570 PRINT "RIGHT!"
580 GOTO 600
590 PRINT "NO, IT WAS ";NAS(X);"."
600 PRINT "WHAT IS ITS"
610 INPUT "BRIGHTEST STAR?":RS
620 IF RS<>BSS(X) THEN 660
630 SC=SC+1
640 PRINT "RIGHT!"
650 GOTO 670

```


BEGINNER PROGRAM

```

660 PRINT "NO, IT WAS ";BS$(X);"."
670 PRINT
680 PRINT "PRESS ANY KEY TO CONTINUE."
690 CALL KEY(3,K,S)
700 IF S=0 THEN 690
710 NEXT I
720 IF Z=0 THEN 130
730 CALL CLEAR
740 PRINT "YOUR SCORE WAS";SC;"OUT OF 24."
750 PRINT "THAT'S";INT((SC/24)*100);"PERCENT CORRECT."
760 PRINT
770 PRINT "PRESS ANY KEY TO CONTINUE."
780 CALL KEY(3,K,S)
790 IF S=0 THEN 780
800 GOTO 130
1000 DATA CAPRICORN,ALGEDI,1/20,2/18,13,158,253,379
1010 DATA 631,693,625,557,458,327,361,365,370,248
1020 DATA AQUARIUS,SADALMELIK,2/17,3/13,12,115,379,691
1030 DATA 175,47,109,107,359,679,771,418,417
1040 DATA PISCES,ALRISCHA,3/13,4/19,18,673,613,615,553
1050 DATA 555,557,566,601,697,732,637,571,485,329,235
1060 DATA 171,105,43
1070 DATA ARIES,HAMAL,4/19,5/15,7,531,662,726,325,310
1080 DATA 143,83
1090 DATA TAURUS,ALDEBARAN,5/14,6/21,13,307,212,278
1100 DATA 340,375,41,163,507,562,631,731,510,607
1110 DATA GEMINI,CASTOR,6/21,7/21,16,109,110,54,210
1120 DATA 441,542,637,271,270,333,266,425,560,628,794
1130 DATA 790
1140 DATA CANCER,BETA CANCRI,7/21,8/11,5,796,84,373
1150 DATA 500,753
1160 DATA LEO,REGULUS,8/12,9/16,14,632,798,473,404,277
1170 DATA 90,155,191,787,743,553,546,361,395
1180 DATA VIRGO,SPICA,9/21,11/1,12,721,617,504,475,413
1190 DATA 285,286,373,179,464,395,387
1200 DATA LIBRA,ZUBEN ELGENUBI,11/1,11/22,6,339,76,264
1210 DATA 687,712,776
1220 DATA SCORPIO,ANTARES,11/23,11/30,15,373,311,91
1230 DATA 156,315,411,403,498,561,624,749,713,583,519
1240 DATA 457
1250 DATA SAGITTARIUS,NUNKI,12/19,1/19,14,270,75,331
1260 DATA 336,307,428,468,279,534,535,627,725,713,742

```

Timex Sinclair 1000 w/16K RAM Pack & Timex Sinclair 1500/Zodiac

```

10 FAST
20 DIM DS(12,3,15)
30 DIM S(12,19)
40 LET MS="CAPRICORN,ALGEDI,1/20 AND 2/18,13,125,220,3
14,566,596,560,492,393,262,296,300,305,215,"
50 LET MS=MS+"AQUARIUS,SADALMELIK,2/17 AND 3/13,12,82,
314,594,142,14,76,74,294,582,674,353,352,"
60 LET MS=MS+"PISCES,ALRISCHA,3/13 AND 4/19,18,576,548
,550,488,490,492,501,536,600,635,572,506,420,264,202,1
38,72,10,"
70 LET MS=MS+"ARIES,HAMAL,4/19 AND 5/15,7,466,565,629,
260,245,110,50,"
80 LET MS=MS+"TAURUS,ALDEBARAN,5/14 AND 6/21,13,242,17
9,213,275,310,8,130,442,498,566,634,446,543,"
90 LET MS=MS+"GEMINI,CASTOR,6/21 AND 7/21,16,78,79,23,
179,378,479,574,208,207,270,203,362,497,565,699,695,"
100 LET MS=MS+"CANCER,BETA CANCRI,7/21 AND 8/11,5,699,
51,308,435,656,"
110 LET MS=MS+"LEO,REGULUS,8/12 AND 9/16,14,567,701,40
8,339,212,57,122,158,690,646,488,481,296,330,"
120 LET MS=MS+"VIRGO,SPICA,9/21 AND 11/1,12,626,554,44
1,412,350,222,222,310,148,401,332,324,"
130 LET MS=MS+"LIBRA,ZUBEN ELGENUBI,11/1 AND 11/22,6,2
74,43,199,590,615,679,"
140 LET MS=MS+"SCORPIO,ANTARES,11/23 AND 11/30,15,308,
246,58,123,250,346,338,433,496,559,652,616,518,454,392
,"
150 LET MS=MS+"SAGITTARIUS,NUNKI,12/19 AND 1/19,14,205
,42,266,271,242,363,403,214,469,470,562,628,616,645,"
160 LET P1=1

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170 LET P2=10
180 FOR X=1 TO 12
190 FOR Y=1 TO 3
200 GOSUB 1000
210 LET DS(X,Y)=RS
220 LET DS(X,Y,15)=CHR$(LEN RS)
230 NEXT Y
240 GOSUB 1000
250 LET S(X,19)=VAL RS
260 FOR Y=1 TO S(X,19)
270 GOSUB 1000
280 LET S(X,Y)=VAL RS
290 NEXT Y
300 NEXT X
310 SLOW
320 CLS
330 PRINT TAB 13;"ZODIAC";AT 4,0;"PRESS <V> TO VIEW TH
E"
340 PRINT "CONSTELLATIONS OF THE"
350 PRINT "ZODIAC, <Q> FOR A QUICK QUIZ, OR";
360 PRINT "<E> TO END THE PROGRAM."
370 LET KS=INKEYS
380 IF KS="" THEN GOTO 370
390 IF KS="E" THEN STOP
400 IF KS("<V") AND KS("<Q") THEN GOTO 370
410 LET Z=(KS="Q")
420 LET SC=0
430 FOR I=1 TO 12
440 LET X=I
450 IF NOT Z THEN GOTO 480
460 LET X=INT(RND*12)+1
470 GOTO 590
480 CLS
490 PRINT "THE SUN IS IN THE"
500 PRINT "CONSTELLATION ";DS(X,1,TO CODE DS(X,1,15))
510 PRINT "BETWEEN ";DS(X,3,TO CODE DS(X,3,15));"."
520 PRINT
530 PRINT "THE BRIGHTEST STAR IN ";DS(X,1,TO CODE DS(X
,1,15))
540 PRINT "IS ";DS(X,2,TO CODE DS(X,2,15));"."
550 PRINT
560 PRINT "PRESS ANY KEY"
570 PRINT "TO VIEW ";DS(X,1,TO CODE DS(X,1,15));"."
580 PAUSE 5000
590 CLS
600 FOR Y=1 TO S(X,19)
610 LET Q=INT(S(X,Y)/32)
620 PRINT AT Q,S(X,Y)-Q*32;CHR$(23+29*(Y=1))
630 NEXT Y
640 PAUSE 300
650 IF NOT Z THEN GOTO 860
660 CLS
670 PRINT "WHAT CONSTELLATION WAS THAT?"
680 INPUT RS
690 PRINT RS
700 IF RS<>DS(X,1,TO CODE DS(X,1,15)) THEN GOTO 740
710 PRINT "RIGHT."
720 LET SC=SC+1
730 GOTO 750
740 PRINT "NO, IT WAS ";DS(X,1,TO CODE DS(X,1,15));"."
750 PRINT "WHAT IS ITS BRIGHTEST STAR?"
760 INPUT RS
770 PRINT RS
780 IF RS<>DS(X,2,TO CODE DS(X,2,15)) THEN GOTO 820
790 PRINT "RIGHT."
800 LET SC=SC+1
810 GOTO 830
820 PRINT "NO, IT IS ";DS(X,2,TO CODE DS(X,2,15));"."
830 PRINT
840 PRINT "PRESS ANY KEY TO CONTINUE."
850 PAUSE 40000
860 NEXT I
870 IF NOT Z THEN GOTO 320
880 CLS
890 PRINT "YOUR SCORE WAS ";SC
900 PRINT "OUT OF 24. THAT IS"
910 PRINT INT((SC/24)*100);" PERCENT CORRECT."

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