Ready for a brain work-out? A Grand Prix of the mind? If you're up for the challenge, *The Brain Game* offers a unique computerized adventure in discovery of your own mental abilities.

Each Brain Game has been selected by experts for its proven effectiveness in assessing an aspect of intelligence. Left brain, right brain...memory and logic—there's hardly an intellectual skill left untested by one of the 13 games.

An actual IQ test is included in *The Brain Game*, and you should remember that measuring an overall IQ is controversial and elusive. Intelligence is composed of a variety of skills, not the least of which is motivation. In fact, someone who chooses a program like *The Brain Game* is demonstrating intellectual curiosity and that all-important motivation which is the mark of real intelligence.

By now you are probably ready to get started. We recommend that you begin with the IQ Test to get a straightforward look at an overall intelligence test. Then take the tests in any order that interests you. *The Brain Game* is entirely self-explanatory, with extensive built-in instructions, but there are a few things you may want to know. Take a look at the RUNNING and LOADING AND OTHER BITS sections below.

When taking a test, do remember that the score reflects your skills at a particular time only and that it might change if you took it at another time and under different circumstances.

## Running.

To run the program, *boot* the disk. (See LOADING.) To turn off the opening music, press CTRL-A (for Audio) on booting.

After the opening credits you have an opportunity to try your hand (and your brain) at some sample questions, designed to introduce you to *The Brain Game*. You can choose to take them or you can go on directly to your menu of Brain Games.

When you arrive at the menu you can begin the test of your choice by pressing any letter A-M. You might base your selection on the **Grey Matter** (information on intellectual functions), which will be revealed when you press # at the menu. When you have chosen a test, the program may ask you to turn the disk over. (See SIDE 2.)

At the menu you also have the option to turn on the keypress sound. If you press ! you will hear a tone every time you press a key.

Every test begins with an introduction to the subject being examined. You are then given instructions, and when you are ready you can begin by pressing any key. The instructions to three of the tests will ask you to pull out a test card or booklet, so keep those at hand. They are included in your package. Most of the tests have a time limit; indeed some are quite brief, in order to test your skills under time pressure. You will be told the time allowance for each test in its instructions. The timer is at the upper right of the screen so you can keep track as well. When the time has run out, the test will stop. Some tests will not be completed by everyone, so don't worry if you are not done when the time runs out. The timer is active only while questions are displayed on the screen. You do not lose time while the computer is working.

In all tests you have the option to stop at any point by pressing ESC and answering Y when asked whether you really want to quit. You will then be returned to the menu of **Brain Games** without recording your score.

In most tests you can press RETURN to skip a particular question and later go through the test again to fill it in and change previous answers if you have time left.

You can also review the correct answers for each applicable test after you have taken it. When you have finished a test, the program will give you the opportunity to review the correct answers along with the answers you gave. (The Matching Accuracy Tests don't allow this since only time pressure prevents you from always choosing the correct answer.) If you are planning to take the tests again soon for comparative purposes, you may not want to take this option.

At the end of every test you have the opportunity to save your score to the score table. The score table keeps track of your scores and the scores of up to four additional players as well. Or you can use the five available records to compare your own scores over time, getting a complete testing profile of yourself by taking all the tests now and then taking them all again at some time in the future.

Of course, the scores of any player are kept confidential by the computer. When any player saves a score to the disk, he or she is asked for a password. *Only that password* can reveal the score. However, since there is room on the disk only for five score records, you may occasionally need to delete a record to make room for others.

We have provided a master password so that you, the owner of this program, can delete any player's record. (You still can't examine it unless you know the individual password.) Your master password is MIND. Do not reveal this password to anyone else if you don't want family members or friends to strain good relations by deleting each other's score records!

### Loading and Other Bits =

The Brain Game disk works on Apple II+, //e, and //c computers with at least 48K and a disk drive.

Put the disk in your disk drive, label side up, close the drive door, and turn on the computer. (If you have a //e or //c, you can also press the CTRL, Open Apple, and RESET keys at the same time and then let go, releasing the RESET or CTRL key first, if the computer is already on.) The program will boot and run automatically.

If you accidentally boot side 2 of the *Brain Game* disk, the computer will ask you to turn the disk over.

If the disk does not boot or the program 'crashes' (both unlikely), just restart your computer. (Turn your computer off, put the *Brain Game* disk in the main disk drive, label side up, close the door, and turn on the computer.) Sometimes if the computer has trouble reading the disk it helps to take the disk out and then put it back in the drive. If you still have problems, consult your dealer or call us. You might also like to have a look at the Millennium warranty. If you do damage your disk, we will replace it for a small fee.

**STOPPING.** The best time to stop using the *Brain Game* disk is at the menu of **Brain Games**. If you are taking a test, press ESC and answer that you want to quit. You will then go to the menu. Always make sure the disk drive light is off and the drive is not on; then remove the disk and turn the power off.

### Side 2 =

Many of the Brain Games are stored on side 2 of the disk. The computer will ask you to turn the disk over at the appropriate times.

There is some chance with a dirty, unmaintained disk drive that a two-sided disk can dislodge dirt, so we give you an alternative: Millennium will send you a second disk with the second side of the program recorded on it. (Simply write us a letter asking for *The Brain Game* (Apple) Disk B, along with a check for \$10.00 to cover all costs including shipping and handling. Please enclose a copy of your receipt for purchase of the program.) If you have Disk B, you can switch to it instead of flipping the *Brain Game* disk.

If you have Disk B and two disk drives, you have another choice: *The Brain Game* can run on two drives, so you don't have to switch disks at all. When you first see the menu of Brain Games, press  $\star$  so that the screen changes to read "switch to one drive." When the computer tells you, make sure Disk B is in your second drive (and don't forget to close the drive's door!).

If you have only one disk drive or do not have the Disk B copy, do not push \* at the menu of Brain Games. If you do it accidentally, press \* again so that the menu reads "switch to two drives."

## Acknowledgments and Thanks

Rita Aero is an author and book designer who divides her time between New York and San Francisco. She has written books about Chinese philosophy, human longevity, and new technologies, and she has co-authored three books with Dr. Weiner.

Elliot Weiner is a clinical psychologist who lives in Portland, Oregon. In addition, he is a professor of psychology at Pacific University and is the executive director of the Oregon Psychological Association. Long active in communicating the findings of psychology and psychological testing to the public, he has appeared on over 150 television and radio programs.

Ronald S. Lizzi programmed *The Brain Game*. A student at Georgia Institute of Technology, he has taught programming in his native Connecticut. *The Brain Game* is his second software title published by Millennium.

The graphics in the opening sequence were created by Sally Tobin.

John Paul Endress photographed the album cover.

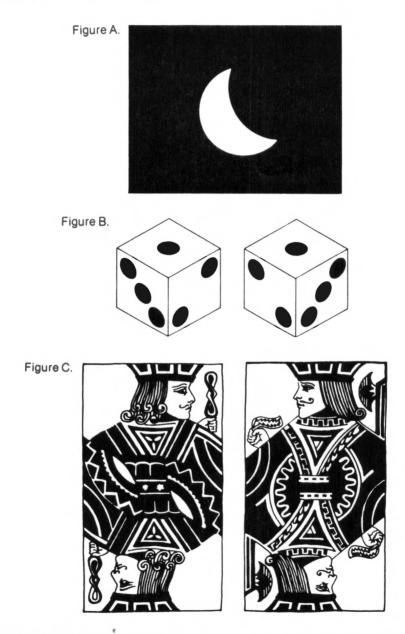
Our licensing agreement with Apple Computer, Inc., requires us to remind you that: Apple DOS 3.3 is a copyright program of Apple Computer, Inc., licensed to Millennium Group Incorporated for use only in combination with *The Brain Game*. Apple Software shall not be copied onto another diskette (except for archive purposes) or into memory unless as part of the execution of *The Brain Game*. When *The Brain Game* has completed execution Apple Software shall not be used by any other program.

Millennium Group Incorporated would like to thank the following people for their contributions: Susan Lefkowitz, David H.M. Spector, Mary Ann Spencer, Belinda S. Tan, Susanna Varghese, Jenny M.K. Yi.

If you have questions, comments, or suggestions for other Millennium programs, let us know!

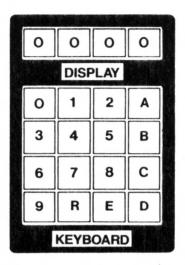


#### Recall-of-Observations Test Questions 1, 19, 31–32



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#### Computer Science Aptitude Test Calculator Simulator Questions 11–15

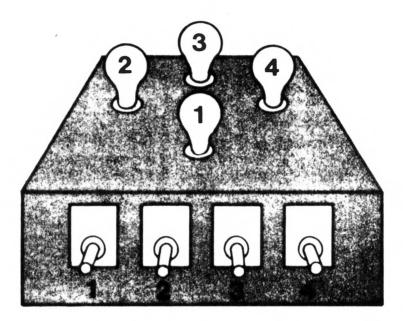


Consider the calculator shown here with a four-digit|display, digits 0 through 9, and operations A, B, C, D, E, and R. The meaning of the operations of the calculator are as follows:

- R = Reset the display so that all digits are 0.
- E = Enter the number pressed after the letter E into the display.
- A = Add the number pressed after the letter A to the number in the display and display the result (sum).
- B = Subtract the number in the display from the number pressed after the letter B and display the result (difference).
- C = Multiply the number pressed after the letter C by the number in the display and display the result (product).
- D = Divide the number pressed after the letter D into the number in the display and display the result (whole-number quotient).
- Note: Except for the letter R, a number is pressed after a letter.

An example of a calculator program is the following (instructions are performed from left to right in order): | RE20B50D6. This program first resets the display to 0, then enters the number 20 into the display, subtracts 20 from 50 (the display now reads 30). and finally divides the result in the display by 6. The display reads 5 after the last operation.

#### Computer Science Aptitude Test Algorithm Questions 16–20



Assume further that we have four switches connected so that each switch controls the light bulb with the corresponding number. Consider the following set of instructions, but do not perform the actions indicated yet.

- 1. Turn on the light bulb that is directly across from the single light bulb that is on.
- 2. If any odd-numbered light bulb is on, go to step 4.
- 3. Turn off the lowest-numbered light bulb, and go to step 5.
- 4. Turn off the highest-numbered light bulb.
- 5. Turn on the bulb next to the highest-numbered bulb that is on, in a clockwise direction.
- 6. Turn off any even-numbered bulbs which might be on, and stop.

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### **Command Summary**

At the menu of Brain Games:

- A-M-Chooses a test.
- \*-Switches to two (or one) drives.
- #-Reveals Grey Matter.
- +-Takes you to score table.

! - Turns on keypress sound. At various points in the program:

**RETURN--**Completes an input where called for.

- -Skips a question or question set during a test.
- -Keeps previous answers when reviewing them.
- -Advances to next question when reviewing correct answers.
- -Provides available options in the score table.
- -Views score table.
- ESC—Stops the test in progress, asks you if you definitely want to quit, and (if YES) returns to the menu of Brain Games.
  - -Ends the test if reviewing previous answers and goes to score report.
  - -Ends a correct answer review and proceeds to score table.
  - -Gets out of score table.

SPACE-Switches between question and explanation of answer in IQ Test.

CTRL-A-Turns off music (Audio) if pressed on boot-up.

Y and N-May substitute for 'YES' and 'NO.'

Lower- and upper-case both are allowed when letters are entered.

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## Art Judgment Test





а





а

b







6

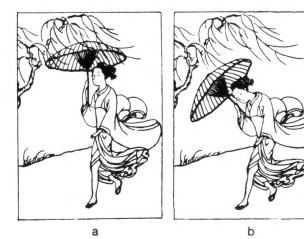
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а

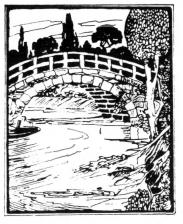


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b

9

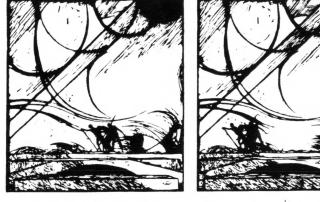


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(13)



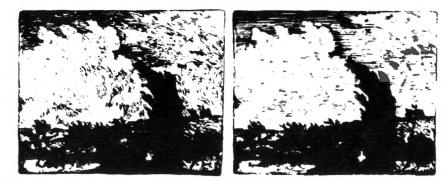
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(14)



a

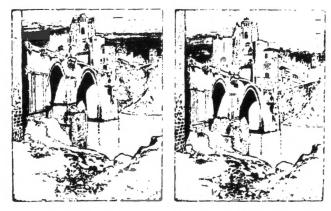
b



а

b

(16)



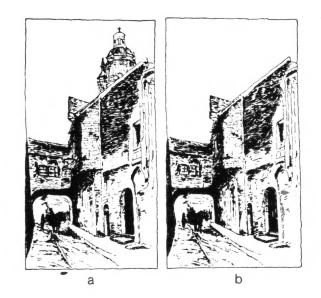
а

b





a











а

b



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