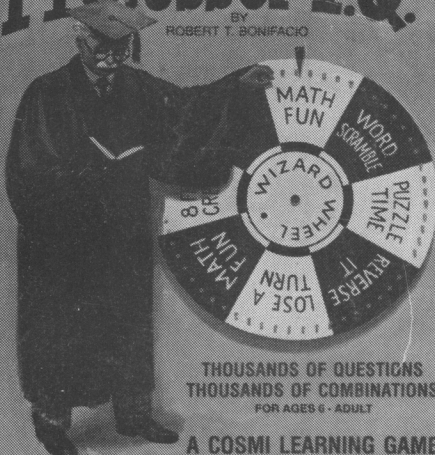COMPUTER PROGRAM DISKETTE
FOR ATARI® AND COMMODORE® 64®

COSMI
BI-COMPATIBLE

Professor I.Q.

BY
ROBERT T. BONIFACIO

MATH FUN
WORD SCRAMBLE
PUZZLE TIME
REVERSE IT
LOSE A TURN
MATH CRUNCH
WIZARD WHEEL

THOUSANDS OF QUESTIONS
THOUSANDS OF COMBINATIONS
FOR AGES 6 - ADULT

A COSMI LEARNING GAME

Contains one program diskette CAD16-301 with instruction manual. **Accessories required:** 1.) Joysticks. 2.) Atari® or Commodore® 64™ disk drive.

COSMI

PROFESSOR I.Q.

by
Robert T. Bonifacio

BI-COMPATIBLE

An exciting, fun and educational learning game
for all Atari® computers and the Commodore® 64™.

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INSTRUCTIONS

PROFESSOR I.Q.

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OVERVIEW

Welcome to Professor I.Q.! The educational game that improves your I.Q. while you have fun. Professor I.Q. has a self-handicapping program in it that treats each player as an individual and therefore allows players of different abilities to play against each other in true competition.

Professor I.Q. can be played by either one or two players. Both versions will improve your ability to recognize and unscramble words from three to six letters. Professor I.Q. improves your ability to solve simple to difficult math problems in your head. Spatial abilities and mental strategies will be improved with puzzles that tax your mind.

ATARI® VERSION

SYSTEM REQUIREMENTS

1.) The Professor I.Q. cassette or diskette.
2.) Any Atari® personal computer.
3.) Atari® cassette program recorder or Atari® disk drive.
4.) One joystick controller.

COMMODORE® 64™ VERSION

SYSTEM REQUIREMENTS
1.) The Professor I.Q. cassette or diskette.
2.) Commodore® 64™ computer.
3.) Commodore® Datasette Recorder or Commodore® VIC-1541™ or VIC-1540™ single drive floppy disk.
4.) One joystick controller.

LOADING THE PROGRAM—ATARI® VERSION
Important Note: The Atari® cassette and diskette programs are located on SIDE 2 (the side *without* the label). Professor I.Q. is a machine language game program which requires 16K RAM. It is loaded by the following steps in exact order:

CASSETTE VERSION
1.) Turn off the Atari® computer and remove all ROM program and game cartridges including the BASIC cartridge. Do not remove the operating RAM system.

2.) Connect the cassette recorder to the PERIPHERAL jack on the right hand side of the computer. (Make certain the recorder is as far removed from the TV set or monitor as possible.)

3.) Make sure that the cassette is completely rewound to the beginning of Side 2 (the side without the label). (The tape pack should appear on the left side when looking down into the cassette window.) Place the cassette in the recorder and press the PLAY button.

4.) Push the yellow START key on the right of the Atari® and KEEP IT DOWN.

5.) Turn on the computer. It will beep once to let you know it is ready to load the tape. When it beeps, release the START key.

6.) Press the RETURN key on the keyboard. The cassette player will begin to run and the program will load. It will take several minutes to complete loading because of the length of the program.

7.) When the entire program is loaded, the cassette player will stop automatically and you will be ready to begin the game. You should rewind the cassette and put it back in the box. (Do not place the cassette on the computer or TV set as their electrical fields may damage the program recording.)

DISKETTE VERSION

1.) Turn off the Atari® computer and remove all ROM program and game cartridges including the BASIC cartridge. Do not remove the operating RAM system.

2.) Connect the disk drive to the PERIPHERAL jack on the right hand side of the computer. (Make certain the disk drive is as far removed from the TV set or monitor as possible.)

3.) Turn on the disk drive and insert the diskette with Side 2 up (the side without the label). Close the disk drive door.

4.) Turn on the computer. The program will automatically load and run in a few seconds.

5.) When the entire program is loaded the disk drive will stop automatically and you will be ready to begin the game. You should turn off the disk drive, remove the diskette and put it back in the box. (Do not place the diskette on the computer or TV set as their electrical fields may damage the program recording.)

NOTE: It is essential with both versions of the Professor I.Q. that you start with the the computer turned "off" and with no program cartridges in the computer.

5

THE SYSTEM RESET KEY

When using the program on a computer with only 16K of memory installed, the SYSTEM RESET key should not be pressed for this can lead to locking up the computer and then the program must be loaded again. If you have more than 16K, then the game will just be restarted.

LOADING THE PROGRAM—COMMODORE® 64™ VERSION

Important Note: The Commodore® 64™ cassette and diskette programs are located on SIDE 1 (the side *with* the label). For a one player game the joystick must be plugged into CONTROL PORT NO. 1.

CASSETTE VERSION

1.) Attach the Datasette Recorder to the computer according to the recorder's Instruction Manual. Turn on the computer and wait for the flashing cursor to appear. See that all buttons on the Datasette are not depressed and that the recorder is as far removed from the TV as possible.

2.) Insert the Cassette Program Tape in the recorder with the label side 1 facing up. Press the rewind key on the recorder to make certain the tape is fully rewound to the beginning. Now type on the computer: LOAD "PI" and press the RETURN KEY. (The computer will respond with the message: PRESS PLAY ON TAPE.)

3.) Press the PLAY key on the Datasette. Immediately, the TV screen will go blank and the cassette will start moving. After a moment, the screen will return with the message, FOUND PI.

4.) At this point, press the Commodore key (the key with the Commodore logo next to the shift key on the lower left of the keyboard). The screen will again go blank and the cassette will start turning again. After a moment, the screen will return with the READY message and flashing cursor.

5.) Now type: RUN and press the RETURN key. The screen will blank once more and the cassette will start again. A 28K Program on cassette will take approximately six minutes to load. When the program is loaded, the cassette will stop, the screen will return and the program will begin automatically. **Note:** It is a good idea to press the stop key on the Datasette and then rewind the tape to the beginning.

DISKETTE VERSION

1.) Attach the Commodore® VIC-1540™ or VIC-1541™ Disk Drive to the computer according to the Disk Drive's Instruction Manual.

2.) Turn on the computer and wait for the flashing cursor and the READY message. Now turn on the Disk Drive. Wait for the red light on the drive to go out.

3.) Insert the program diskette with the label side 1 facing up and close the drive latch. Type on the computer: LOAD "PI", 8 and press the RETURN key. The computer will respond with the message, SEARCHING FOR PI.

4.) After a moment, it will read, FOUND PI–LOADING. When the READY message returns, type: RUN and press RETURN. The program title card will appear and the program will start loading automatically. When the program is loaded, the game will begin immediately. **Note:** It is a good idea to remove the diskette and replace it in its envelope.

USING THE JOYSTICK

Throughout the game, player 1 uses a joystick plugged into port 1 and player 2 (in 2 player versions) uses a joystick plugged into port 2. The joystick is held with the red fire button in the top left corner of the joystick when facing the screen.

Player 1 must now spin the WIZARD WHEEL by pushing the joystick forward. The WIZARD WHEEL will slowly spin to a stop and the topic highlighted in the center of the screen is what player 1 must play. The WIZARD WHEEL is completely random and therefore the instructions to the 6 topics that the player may get must be looked up in this manual.

JOYSTICK CONTROL

Move left or right to control the question line cursor and press the joystick button to select a letter or number. Any number or letter that the cursor is on when you press the button will be placed next to the cursor on the answer line.

PLAYING PROFESSOR I.Q. FOR THE FIRST TIME

After the program has loaded, the title page will be displayed and short tune will play. When the tune is over, follow the instructions on the screen to select one or two player versions and start the game.

The WIZARD WHEEL will now be displayed; it reads as follows:

PLAYER 1 CREDITS PLAYER 2 CREDITS—under these headings will appear the number of credits that each player has earned.

These headings will appear on all the screens that you might need this information.

In the center of the screen are 5 lines of game topics; the center topic will be highlighted in white. This highlighted topic will be the one played after the WIZARD WHEEL is spun.

Push stick forward to spin wheel. This line will only appear when the player mentioned below this line must spin the wheel.

The last line of text always shows what player is up on any particular screen.

THE CATEGORIES INCLUDE:

WORD SCRAMBLES

The main idea of this topic is to unscramble as many words of varying difficulty in the 1 minute time limit. The words to be unscrambled are not names of people or places. The words are also not slang or foreign. The WORD SCRAMBLES screen reads as follows:

  Player 1 and player 2's credits.
  The large screen timer.

The current problem timer, which consists of a Bookworm moving from left to right. When the worm reaches the right side of the screen, it gets the "book thrown at him" and the player is given the correct answer.

The question line. This line will have an asterisk(*) preceding it and a word that is scrambled. In MATH FUN this line will have the numbers 0-9 on it. In both WORD SCRAMBLES and MATH FUN, this is the line on which you will control the movement of the cursor.

The answer line. This line, in WORD SCRAMBLES, will have just a gray cursor on it. The cursor shows where the letter you choose on the question line will go. In MATH FUN, this line will have the math problem and then the gray cursor for your answer.

The title line. This line is always the second line from the bottom of most screens and it just tells you what game topic you are playing.

The player up line. This line tells you which player is playing.

In WORD SCRAMBLES, when all the letters are used up in the question line, the computer will check to see if your unscramble is correct or not. If it is not correct, WRONG! will appear in the upper left corner of the screen and a buzzer will sound. You will then have another chance to solve the problem. If the answer is correct, then RIGHT! will appear and a bell will sound and you will be awarded the appropriate number of credits based on your present difficulty level. The same actions will take place when the number of digits of the correct answer in MATH FUN are used up. NOTE: to erase any letter or number that you may have accidentally placed into the answer area, just place the cursor on the asterisk(*) and press the fire button. For every answer you get correct, the bookworm will be placed back on the left side of the screen. Once the main timer counts down to zero, the WIZARD WHEEL will appear or in the case of a ONE PLAYER version, the GAME BOARD will appear. The GAME BOARD will be discussed later.

MATH FUN
MATH FUN operates just like WORD SCRAMBLES, except that math problems will be asked instead of word problems.

PUZZLE TIME
When this screen comes up, you will be presented with the alphabet divided into 3 rows of letters. A square 4 by 3 section will be mixing itself up while making a sound. After the square section stops mixing, a tune will begin to play; this is your cue to start moving the letters about to get them in alphabetical order before your 2 minutes on the large timer expire. The JOYSTICK CONTROL is as follows: Move the flashing cursor up, down, right, and left by moving the joystick in the same directions. To move a letter or a number of letters to an empty space, just hold in the fire button while you make your move. A tune will play every 30 seconds to remind you of the time left.

REVERSE IT
In REVERSE IT, the whole idea is to get the numbers in the center of the screen in numerical order, i.e. 01234567. JOYSTICK CONTROL: move the joystick left or right to control the position of the asterisk under the 8 numbers. When the asterisk(*) is moved to the right, it leaves a trail of dashes -- when it moves left, the dashes are

erased. To reverse a section of numbers, just press the fire button on the joystick. All the numbers from the left-most number up to and including the asterisk will be reversed. For every reverse that you make with the button, you will lose 1 credit.

Every time you start a new game of Professor I.Q., the level of REVERSE IT will be reset to 1. If you play REVERSE IT more than once during a game, you will return to the highest level you had previously achieved.

REVERSE IT LEVELS AND SCORING

LEVEL NO.	NUMBERS TO REVERSE	MOVES & CREDITS ALLOWED
1	3	9
2	4	12
3	5	15
4	6	18
5	7	21
6	8	24
7	9	27

Therefore, at LEVEL 3 you will have to reverse 5 digits into correct order in 15 or less moves.

EXAMPLE:

The level you start at is level *ONE* so you are awarded 9 credits in advance. These 9 credits will be your number of moves that can be made to complete the current puzzle. If you use up all your moves (credits) that you were given, REVERSE IT will end.

You will have to get 3 digits into numerical order in 9 moves or until the 1 minute timer runs out. Both cases:
   1) using all your moves
   2) timer running out
result in the end of REVERSE IT.

In the one player game, every move that player 1 makes will be counted as 1 credit for player 2 (the computer), *but only if* player 1 completes the puzzle correctly in the 1 minute time limit.

No credits will be counted against player 1 to player 2 for any incomplete puzzle.

NOTE: See GAME HINTS.

8 FREE CREDITS

When you get this game topic, you will be awarded 8 credits and be allowed to spin again.

LOSE YOUR TURN

Getting this topic will cause you to lose your turn at playing any topic.

THE GAME BOARD

This board is recognized by its 8 by 8 square shape and that it has 2 disks on it, placed in opposite corners. One disk has a 1 on it and the other has a 2 on it. It is this screen that you use the credits which you obtain on the other screens. The main idea is for player 1 to cover the board with X's while player 2 tries to cover the board with O's. JOYSTICK CONTROL: move up, down, left and right. The joystick button has no effect on this screen. You lose one credit for every move that you make that changes the block you land on to your mark. Moving onto a block that already has your mark on it does not affect your credits. Moving off the screen results in placing your disk back to its starting position in one of the corners of the board. The GAME BOARD is divided into 2 sections. Player 1's section is the top half of the board. Player 2's section is the bottom half of the board. If player 1 lands on player 2 while player 2 is in player 1's section, player 2 will lose 5 credits and be stunned off the board for a few seconds. The same will happen to player 1 if player 2 lands on him while he is in player 2's territory. Both players must use all their credits to go on to the WIZARD WHEEL. When a player runs out of credits, that player's piece is taken off the board. THE PLAYER WHO COVERS THE GAME BOARD WITH HIS MARK IS PROCLAIMED THE WINNER OF PROFESSOR I.Q.

ONE PLAYER GAME FLOW

Player 1 (the human) spins the wheel and plays the game topic he gets on the wheel. Player 2 (the computer) receives credits based on the performance of player 1. IE: Player 1 does well; player 2 gets a few credits. Player 1 does poorly; player 2 gets many credits. The GAME BOARD then comes up. Player 1 controls disk 1 and player 2's disk is controlled by the computer. The game flow is then repeated until one player covers the GAME BOARD.

TWO PLAYER GAME FLOW

This is exactly like ONE PLAYER GAME FLOW, except player 2 is controlled by a person using a joystick plugged into port 2 and player 2 must spin the wheel after player 1 is through—then the GAME BOARD comes up.

SCORING

WORD SCRAMBLES —
The level of words increases or decreases with the player's performance.

1 credit — 3 letter words
2 credits — 4 letter words
3 credits — 5 letter words
4 credits — 6 letter words

MATH FUN —
The math level increases or decreases with the player's performance.

1 credit — easy addition
2 credits — easy subtraction
3 credits — easy multiplication
4 credits — hard addition
5 credits — hard subtraction
6 credits — hard multiplication

PUZZLE TIME — 3 credits for every letter in the right spot. Plus a bonus of 3 credits for every 10 seconds left on the large timer if puzzle is completed.

REVERSE IT — See REVERSE IT levels and scoring, page 10.

IN THE ONE PLAYER VERSION

The computer receives an amount of credits based on the difference between the maximum credits possible for player 1 and the number of credits that player 1 actually received. If player 1 gets LOSE YOUR TURN on the WIZARD WHEEL, player 2 (the computer) gets 10 credits.

HINTS

PUZZLE TIME — Whenever possible, move more than 1 letter at a time; this serves to increase the number of moves that you can make in the 2 minutes allotted. Start arranging the letters from the top row and work your way down. Don't be afraid to mess up letters already arranged to complete the puzzle. The puzzle cannot be completed unless some parts are mixed and then reorganized.

REVERSE IT — Study the example carefully. The left-most number will always be placed where the asterisk is when the fire button is pressed. Don't ponder over the problem too long; you only have 1 minute!

REVERSE IT EXAMPLE

31752406 ---*	PRESS THE FIRE BUTTON AND GET	57132406 ---*
57132406 ----*	FIRE BUTTON	23175406 ----*
23175406 -*		32175406 -*
32175406 ---*		71235406 ---*
71235406 ------*		04532176 ------*
04532176 -----*		12354076 -----*
12354076 ----*		45321076 ----*
45321076 -*		54321076 -*
54321076 -------*		67012345 -------*
67012345 -*		76012345 -*
76012345 -------*		54321067 -------*
54321067 -----*		01234567 -----*

DONE! in 12 moves.

If the OPTION button is pressed while the WIZARD WHEEL is up and the wheel has not yet been spun, the game will end.

IF YOU CANNOT LOAD THE PROGRAM

1.) Check your equipment carefully to be sure that all cables and connections are correct and tightly inserted.

2.) Re-read the section in the manual about loading machine code programs from cassette tape and diskette. Try to load again.

3.) If you can adjust the volume and tone settings on your recorder, try different settings.

4.) If possible, load another program from a tape or diskette you know works on your computer. This will prove that your equipment works. Try once more to load your game.

5.) The normal reason cassette tapes will not load is tape recorder head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to load tapes made on a different recorder for this reason. Be sure that your tape recorder heads are properly aligned. Your local computer store or dealer can help with this.

6.) If the program still cannot be loaded, send the cassette or diskette, with a description of the problem (what the computer displays on the screen, if anything, when you try to load the cassette or diskette or play the game) and what you did to try to correct the problem.

Defective cassettes or diskettes will be replaced at no charge.

WARRANTY

This article will be replaced if found to be defective in material and/or workmanship within 90 days of purchase. This shall constitute the sole remedy of purchaser and the sole liability of manufacturer. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall manufacturer be liable for special or consequential damages.

PROGRAMMER BIOGRAPHY—Robert T. Bonifacio

After a "chart busting" career designing entertainment programs including the award winning "Aztec Challenge" and "Caverns of Khafka," Robert has turned his talent to creating educational learning software. His superb graphics capabilities are self evident, but in "Professor I.Q." we also get a chance to see some of his humor and imagination. At eighteen, Bob has mastered both the Atari® and Commodore® computers, so he decided to design this latest program in both!

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GAMES WORTH PLAYING