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In order to generate this file, I need to scan the pages, split the double pages and remove any edge marks such as punch holes, clean up the pages, set the relevant pages to be all the same size and alignment. I then run Omnipage (OCR) to generate the searchable text and then generate the pdf file.

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It is my hope that you find the file of use to you personally – I know that I would have liked to have found some of these files years ago – they would have saved me a lot of time !

Colin Hinson

In the village of Blunham, Bedfordshire.



TEXAS INSTRUMENTS HOME COMPUTER

SCOTT, FORESMAN

NUMERATION 1

EDUCATION

SOLID STATE CARTRIDGE

Optional Solid State Speech™ Synthesizer must be attached to the computer to activate the speech capabilities of the cartridge.

Introduces your child to number concepts such as "more than" or "less than," grouping, and place value. Suitable for children from kindergarten through third grade.



Quick Reference Guide

Note that the key sequences required to access special functions depend on the type of computer console you have. Important keystroke sequences are summarized here for your quick reference.

<i>TI-99/4</i>	<i>TI-99/4A</i>	
SHIFT R (REDO)	FCTN 8 (REDO)	Returns to the title screen of the activity in progress.
SHIFT A (AID)	FCTN 7 (AID)	Returns to the teaching examples for Activities 1 through 7.
SHIFT W (BEGIN) or	FCTN 5 (BEGIN) or	Returns to the Numeration 1 selection list. Advances to the Numeration 1 selection list during the title screen sequence.
SHIFT Z (BACK)	FCTN 9 (BACK)	
PERIOD KEY (.)	PERIOD KEY (.)	Press and hold for a brief example of each activity (available on the Numeration 1 selection list screen). Release the key and the activity begins, or view each example and the Numeration 1 selection list appears again.
ENTER	ENTER	Eliminates the pauses after each teaching example and each practice exercise. Proceeds to the next screen. Makes your answer permanent in the practice exercises that require use of the SPACE BAR.
SPACE BAR	SPACE BAR	Press and hold to stop the practice exercises. The program resumes when the key is released. In Activities 1, 4, 6, and 8, repeatedly pressing the SPACE BAR also moves the arrow to the right.
SHIFT V (PROC'D)	FCTN 6 (PROC'D)	Continues to the practice exercises if pressed during the teaching examples.
SHIFT T (ERASE)	FCTN 3 (ERASE)	Erases numbers one at a time in answers requiring more than one digit when pressed before the last digit is entered.
SHIFT C (CLEAR)	FCTN 4 (CLEAR)	Clears a previously typed number when pressed before the last digit is entered.
SHIFT Q (QUIT)	FCTN = (QUIT)	Returns to the master title screen.

Numeration 1

This Solid State cartridge is designed to be used with the Texas Instruments Home Computer. Its preprogrammed solid-state memory expands the power, versatility, and capability of your Home Computer.

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Program and data base contents

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See important warranty information at back of book.

NOTE TO PARENTS

The study of mathematics develops basic skills that provide the foundation for your child's intellectual growth. The staffs of Scott, Foresman and Company and Texas Instruments Incorporated have created an in-depth mathematical series to give your child challenging learning experiences in mathematics. The series includes a diversity of activities and a variety of levels to help your child learn at his or her own pace.

Numeration 1, one of this series, helps your child understand the underlying mathematical relationships in our number system and allows practice in beginning mathematical skills. The activities in Numeration 1 take place "Under the Big Top" and provide your child with a colorful and exciting way to learn basic number skills.

The Numeration 1 cartridge includes the following eight activities:

- **Numbers to 9** gives exercises using numbers from 0 to 9.
- **Comparing Numbers** compares two sets to determine which set is larger.
- **How Many Tens?** presents objects in sets of 10 and allows practice in counting by 10's.
- **Numbers to 99** provides practice exercises using numbers from 0 to 99.
- **Numbers in Order** illustrates the order of numbers and the concept of "greater than" and "less than" by presenting a number line.
- **Ordinal Numbers** presents the ordinal numbers first through ninth.
- **Numbers to 999** introduces the concept of place value using numbers 0 to 999.
- **Review** incorporates exercises from the previous activities for review.



Numeration 1 provides your child with a comfortable and rewarding atmosphere which encourages learning mathematics. Numeration 1 evaluates your child's progress by automatically comparing the number of problems your child answered correctly to the number answered incorrectly. The program either provides a review of the activity or presents a new activity, depending upon the number of problems your child answers correctly. For example, if there are 10 problems in an activity and your child answers 9 correctly, he or she advances to a new activity.

Review activities are structured to allow more practice time for your child before he or she continues to more difficult activities. Exercises are provided until your child answers at least 60% of the problems correctly. *Note:* Reviews are not included in Activities 1 and 3.

Numeration 1 is designed to work with or without the Texas Instruments *Solid State Speech*TM Synthesizer (sold separately). However, the Speech Synthesizer must be attached to activate the voice of the computer. The computer's voice then gives directions, reads the equations, and encourages your child to "Try again" when he or she gives an incorrect answer. The addition of speech strengthens the learning process since your child can hear, as well as see, the correct answers.

YOUR CHILD AND THE COMPUTER

The Texas Instruments Home Computer is a rugged, durable device designed for easy use and care. Teach your child to give the computer the same good care and respect he or she would give a television set, record player, radio, or any piece of electronic equipment:

1. Keep snacks and beverages away from the console.
2. Don't hammer on the keyboard or place heavy objects on it.
3. Don't touch the cartridge contacts. These are recessed in the cartridge to help prevent accidental soiling and/or damage.

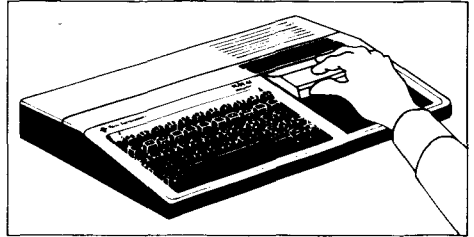
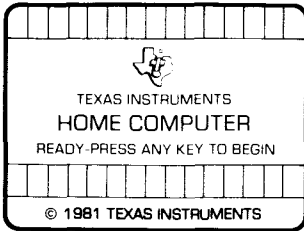
The letters and numbers on the keyboard are arranged in the same order found on standard typewriter keyboards. If your child is not familiar with a typewriter or has not used your Home Computer before, take a few minutes to acquaint him or her with the keyboard. Point out the row of number keys at the top and the rows of letter keys below. Show your child how to insert the cartridge and select the activities. This brief "tour" of the computer will help reinforce correct procedures and instill confidence as your child enters a new world of computers.

Today computers are involved in almost every aspect of life. Working with this cartridge can help your child become familiar with computers and their operation. Since computer-enhanced instruction is more common in the classroom every year, this knowledge can give your child an important advantage.

USING THE SOLID STATE CARTRIDGE

An automatic reset feature is built into the computer. When a cartridge is inserted into the console, the computer returns to the master title screen. All data or program material you have entered will be erased.

Note: Be sure the cartridge is free of static electricity before inserting it into the computer (see page 11).

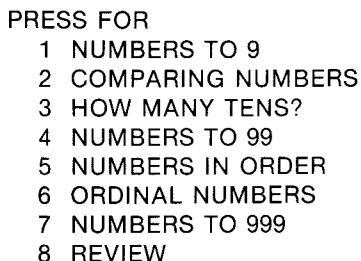


1. Turn the computer ON, and wait for the master title screen to appear. Then slide the cartridge into the slot on the console.
2. Press any key and the MATHEMATICS COURSEWARE SERIES title screen appears. Next, the NUMERATION 1 title sequence begins automatically. To go on to the NUMERATION 1 selection list, press **ENTER** or **BEGIN** after the title sequence begins, or wait for the title sequence to end and the selection list appears automatically.

Note: To remove the cartridge, *first* return the computer to the master title screen by pressing **QUIT**. *Then* remove the cartridge from the slot. If you have any problem inserting the cartridge, or if it is accidentally removed from the slot while in use, please see "In Case of Difficulty" on page 11.

A SAMPLE ACTIVITY

After the Numeration 1 title screen appears, the selection list of the eight activities included in the cartridge is displayed.



PRESS FOR

- 1 NUMBERS TO 9
- 2 COMPARING NUMBERS
- 3 HOW MANY TENS?
- 4 NUMBERS TO 99
- 5 NUMBERS IN ORDER
- 6 ORDINAL NUMBERS
- 7 NUMBERS TO 999
- 8 REVIEW

Your child presses the number corresponding to the activity he or she wants. For this sample activity, press 2 for *Comparing Numbers*.

Immediately after the title screen for the activity appears, the teaching example begins. Two rows of balloons appear in the display. Each row contains a different number of balloons. Between the two rows of balloons is a row of numbers from one to nine. An arrow appears on the screen and points from the first number to the first balloon in the top row. Then an arrow points from the number 2 to the second balloon in the top row. This process repeats until each balloon on the top row has an arrow pointing to it from its corresponding number.

After the top row is completed, an arrow points down from the number 1 to the first balloon in the bottom row. The same procedure is followed as with the top row of balloons.

When the bottom row is completed, a sentence is displayed which explains that one of the numbers is greater or less than the other number. The equivalent mathematical statement is also displayed. For example, the sentence may read as follows: 9 is greater than 3. The mathematical statement is then displayed: $9 > 3$. Next, the sentence and mathematical statements reverse. The sentence now reads as follows: 3 is less than 9. The mathematical statement is also displayed: $3 < 9$.



The next screen of the teaching example displays two boxes with each box containing a different number of balloons. Below the two boxes, the number of balloons in each box is displayed, and a sentence explains that the number of balloons in the first box is less than or greater than the number of balloons in the second box. The equivalent mathematical statement is also displayed. The sentence and mathematical statement then reverse themselves as in the first example.

After one teaching example, your child is asked if he or she wishes to view another one. If your child wants another example, press 1 for "Yes." If he or she is ready to try the practice exercises, press 2 for "No." When your child finishes a desired activity, press **BEGIN** to return to the activity selection list.

SPECIAL FEATURES

"Cursor"

The "cursor" is displayed as a white box with a flashing red border. It prompts your child to respond. When the cursor is flashing, your child may answer a problem or change to another display.

Rewards

Each time your child gives a correct answer on the first or second try, the computer responds with a visual reward, accompanied by a short melody. These rewards reinforce correct answers and help motivate your child to continue.

Error Signals

Special care has been taken to make the response to incorrect answers low key and unthreatening. If your child presses an incorrect answer, a red "X" appears over the response, and an electronic sound tells your child that he or she has selected an incorrect response. Then, the incorrect response and the "X" disappear. Next, the computer tells your child to "Try again," and the cursor flashes again on the display. If the second response is correct, your child receives a visual and musical reward. If the second response is incorrect, a red "X" appears over the response, and the computer supplies the correct answer. (Note: In Activities 2 and 8, your child has only one chance to choose the correct answer.)

Remediation

If two problems in a row are answered incorrectly, the computer provides the answer to the problem. If your child does not score 60 percent or better, a review of the activity is given. (Note: In Activities 2 and 8, the computer supplies the correct answer if a problem is answered incorrectly.)

Since reviews are not included in Activities 1 and 3, press **BEGIN** if an insufficient number of correct answers is selected. Pressing **BEGIN** allows your child to select another activity available in Numeration 1.

Time Out

If no response is given in 20 seconds, the computer gives a short beep, and the message "Your turn" is displayed. After 15 more seconds, the computer beeps again, and the message "What is the number?" is displayed. If no response is given after 10 more seconds, the computer automatically provides the answer to the problem.

NUMERATION 1 ACTIVITIES

The Numeration 1 program contains eight activities designed to introduce your child to the concepts of numeration. These activities include exercises in "greater than" and "less than," ordinal numbers, and place value. Activities 1 through 7 allow your child to learn from a teaching example or progress to the practice exercises. View the teaching examples for each activity and read this section completely so that you can help your child select the appropriate starting activity.

Activity 1: Numbers to 9

This activity introduces numerals from zero to nine (single-digit numbers). In the practice exercises, a random number of circus animals appears on the screen. Below the animals is either a row of numerals from one to nine or three numbers in their written form. Press the **SPACE BAR** to position the arrow under the correct number of circus characters displayed, and then press **ENTER**.



Activity 2: Comparing Numbers

This activity introduces the concept of comparing numbers by using groups of objects to represent the different numbers. Two groups of balloons are displayed, and the screen message asks you to determine which group of balloons is “less than” or “greater than” the other group by entering the corresponding number.

Activity 3: How Many Tens?

Activity 3 allows your child to determine multiples of ten by counting objects that are grouped in tens. In the first group of practice exercises, objects grouped in tens are displayed, and you are asked to decide the number of objects appearing on the screen. In the second set of practice exercises, you are asked to find how many objects are on the screen. At the bottom of the screen is a row of eight faces. When all of the faces are smiling, you advance to another activity.

Activity 4: Numbers to 99

This activity introduces numbers up to 99 (two-digit numbers). The first practice exercise displays groups which contain 11 to 19 arrows. At the bottom of the display, three numbers in their written form are shown. The first number on the left is underlined. Press the **SPACE BAR** to position below the number that indicates the total number of arrows, and press **ENTER**. Similarly, the second set of practice exercises displays groups of arrows, and you type the total number of arrows.

Activity 5: Numbers in Order

Activity 5 utilizes the number line concept to illustrate counting in order. The practice exercises display balloons in a row, some of which contain numbers. A cursor randomly appears in one of the empty balloons, and you must enter the missing number.

Activity 6: Ordinal Numbers

The sixth activity illustrates the order of objects in a series. The practice exercise displays a row of lollipops. You indicate which lollipop is in the given position by pressing the **SPACE BAR** to move the arrow under the appropriate lollipop and then pressing **ENTER**.

Activity 7: Numbers to 999

Activity 7 introduces numbers with three place values (three-digit numbers). The practice exercises begin with a given number of boxes which represent the three groups. You must determine how many hundreds, tens, and ones are displayed. The cursor appears before the word "hundreds" and then moves to the next place value when the correct answer is entered. With some problems in the exercise, you type the three-digit answer which corresponds to the number of hundreds, tens, and ones displayed. In other problems, you practice determining place value. For example, if the number 367 appears on the screen and the computer asks "How many hundreds?," you would type 3.

Activity 8: Review

Activity 8 is a review of the previous seven activities and contains exercises from each of the activities. Your child is given three problems for each objective covered in the previous activities. If your child does not answer a problem correctly on the first try, the computer supplies the correct answer. At the end of the review activity, your child is given a list of the activities that he or she needs to study.



CARING FOR THE CARTRIDGE

These cartridges are durable devices, but they should be handled with the same care you would give any other piece of electronic equipment. Keep the cartridge clean and dry, and don't touch the recessed contacts.

CAUTION:

The contents of a Solid State Cartridge can be damaged by static electricity discharges.

Static electricity build-ups are more likely to occur when the natural humidity of the air is low (during winter or in areas with dry climates). To avoid damaging the cartridge just touch any metal object (a doorknob, a desk lamp, etc.) before handling the cartridge.

If static electricity is a problem where you live, you may want to buy a special carpet treatment that reduces static build-up. These commercial preparations are usually available from local hardware and office supply stores.

IN CASE OF DIFFICULTY

If the cartridge activities do not appear to be operating properly, return to the master title screen by pressing **QUIT**. Withdraw the cartridge, align it with the cartridge opening, and reinsert it carefully. Then press any key to make the **MATHEMATICS COURSEWARE SERIES** title screen appear. (*Note:* In some instances, it may be necessary to turn the computer off, wait several seconds, and then turn it on again.)

If the cartridge is accidentally removed from the slot while the cartridge contents are being used, the computer may behave erratically. To restore the computer to normal operation, turn the computer console off, and wait a few seconds. Then, reinsert the cartridge, and turn the computer on again.

If you have any difficulty with your computer or the **NUMERATION 1** cartridge, please contact the dealer from whom you purchased the unit and/or cartridge for service directions.

Additional information concerning use and service can be found in your *User's Reference Guide*.

Texas Instruments invented the integrated circuit,
the microprocessor, and the microcomputer.
Being first is our tradition.



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