

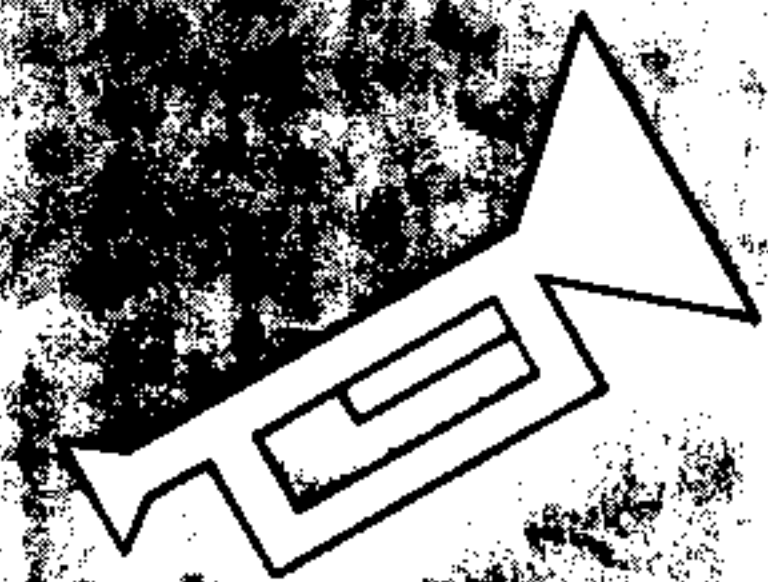
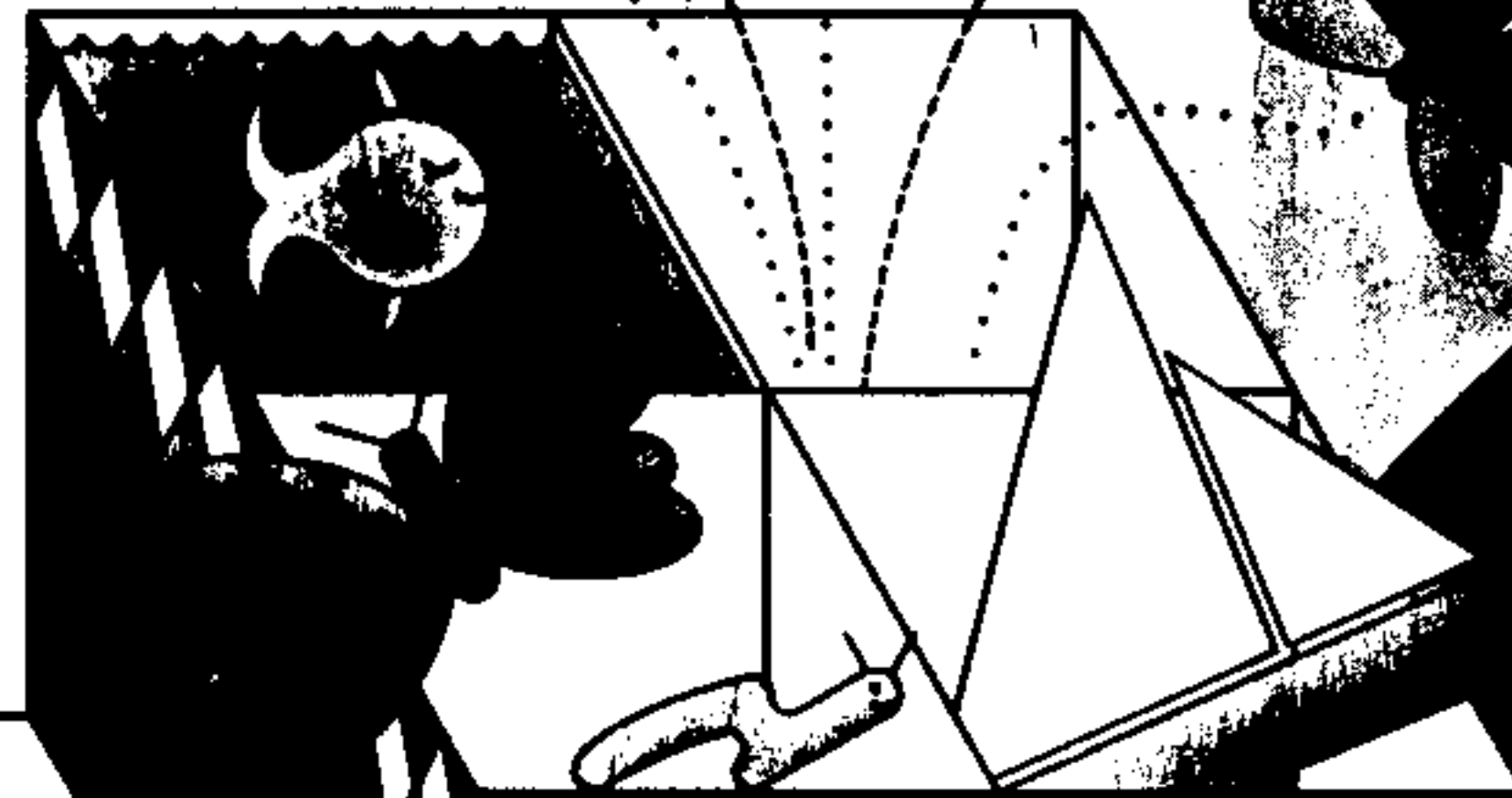
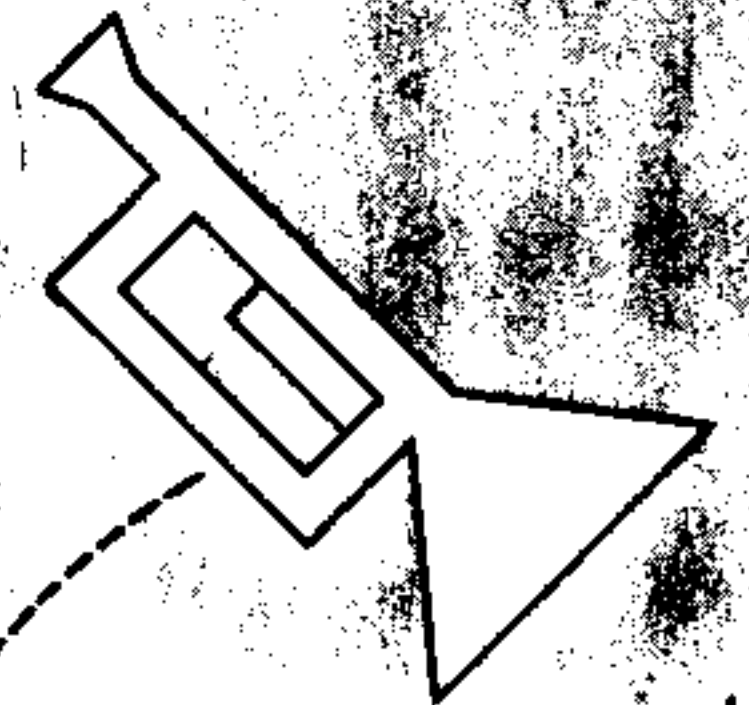


FRACTIONS 1

ABSTRACT

IS FRACTIONS 1 FRACTIONS

For use with the
TI 99/4A microcomputer.



Scott, Foresman
Electronic Publishers

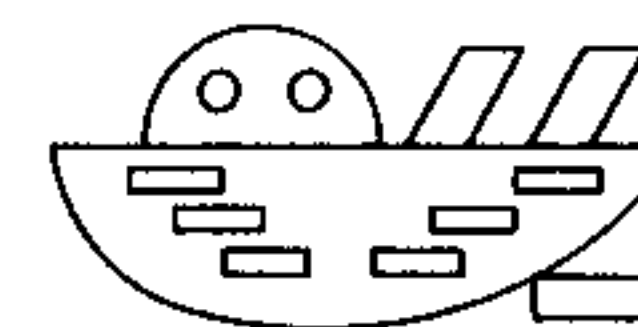
KEYBOARD GUIDE FOR FRACTIONS 1

PRESS	TO
ENTER	<ul style="list-style-type: none">pass through title screens quickly.speed the appearance of the next problem.
Space Bar	<ul style="list-style-type: none">move the cursor or a designated object on the screen.temporarily freeze a screen. The program continues when the space bar is released.
Period Key (.)	<ul style="list-style-type: none">see the beginning of each activity in the module in consecutive order. Start at the main list of activities. Hold the (.) key down until you reach the activity you want.
FCTN 3 (ERASE)	<ul style="list-style-type: none">erase the first number of a two-digit answer before the complete answer is typed.
FCTN 4 (CLEAR)	<ul style="list-style-type: none">erase part of an answer before the complete answer is typed.
FCTN 5 (BEGIN)	<ul style="list-style-type: none">return to the main list of activities at the beginning of the module.
FCTN 6 (PROC'D)	<ul style="list-style-type: none">leave the teaching example and begin the practice exercises.
FCTN 7 (AID)	<ul style="list-style-type: none">view the teaching example appropriate to the practice exercises being done.
FCTN 8 (REDO)	<ul style="list-style-type: none">begin an activity again.
FCTN 9 (BACK)	<ul style="list-style-type: none">return to the teaching example/practice exercise choice screen, or, if there is no teaching example, return to the main selection list of activities.
FCTN = (QUIT)	<ul style="list-style-type: none">end work on the module.

Scott, Foresman

FRACTIONS 1

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This learning module is part of the Mathematics Courseware Series designed to be used with the Texas Instruments 99/4A microcomputer.

The module can be used with or without the Texas Instruments Solid State Speech™ Synthesizer.

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School Materials

A Teacher's Guide for this module is also available. The Guide includes teaching objectives, suggestions for classroom use, and reproducible record-keeping forms and worksheets. For ordering information contact:

Scott, Foresman and Company
Electronic Publishing Division
1900 East Lake Avenue
Glenview, IL 60025

ABOUT THE MODULE

Fractions 1 is an innovative way to learn about fractions. The module uses color, sound, music, and animation to bring math alive. The practice exercises motivate and challenge children, and at the same time make learning fun. You can be assured that this module was carefully designed by educational experts to provide a solid foundation in essential mathematics skills.

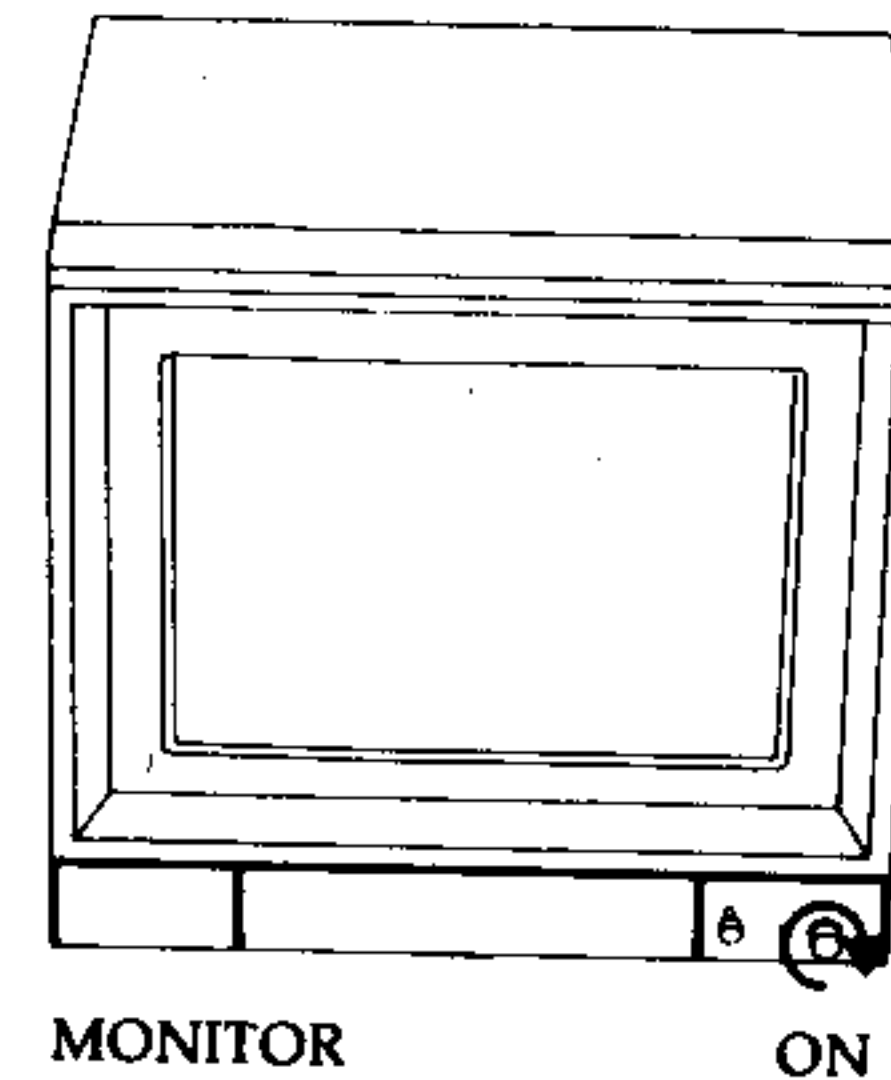
Fractions 1 focuses on the meaning of fractions and the skills of writing and illustrating fractions of a whole and of a group. Activities are also included on writing equivalent fractions and on writing and illustrating mixed numbers. The six activities in **Fractions 1** follow the same sequence of skill-building that most classroom teachers use in grades three through five and should be done in numerical order.

Look for these special features in the module:

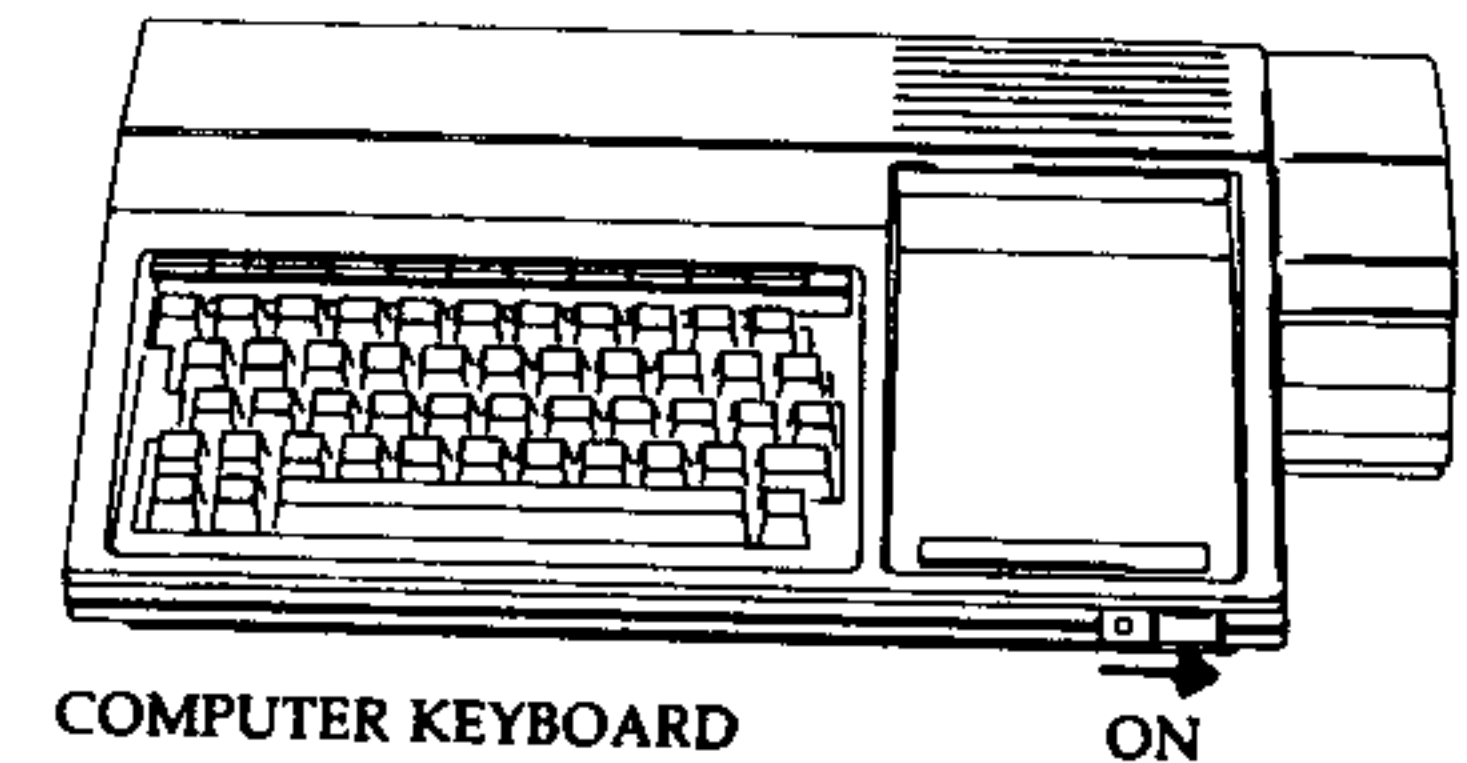
- *simple instructions which allow children to use the module with little or no supervision*
- *teaching examples, practice exercises, and review activities*
- *built-in management that allows children to advance at their own pace and provides additional teaching examples when necessary*
- *musical and graphic rewards for correct answers*
- *color, sound, and animation*
- *voiced reinforcement of directions and correct answers through optional use of a speech synthesizer*
- *numbers which are randomly generated so children receive new problems each time the exercises appear*
- *two chances to answer each exercise correctly before the computer supplies the correct answer*
- *durable hardware and software components with useful keyboard functions programmed into the module*

GETTING STARTED

1. Turn switches on.

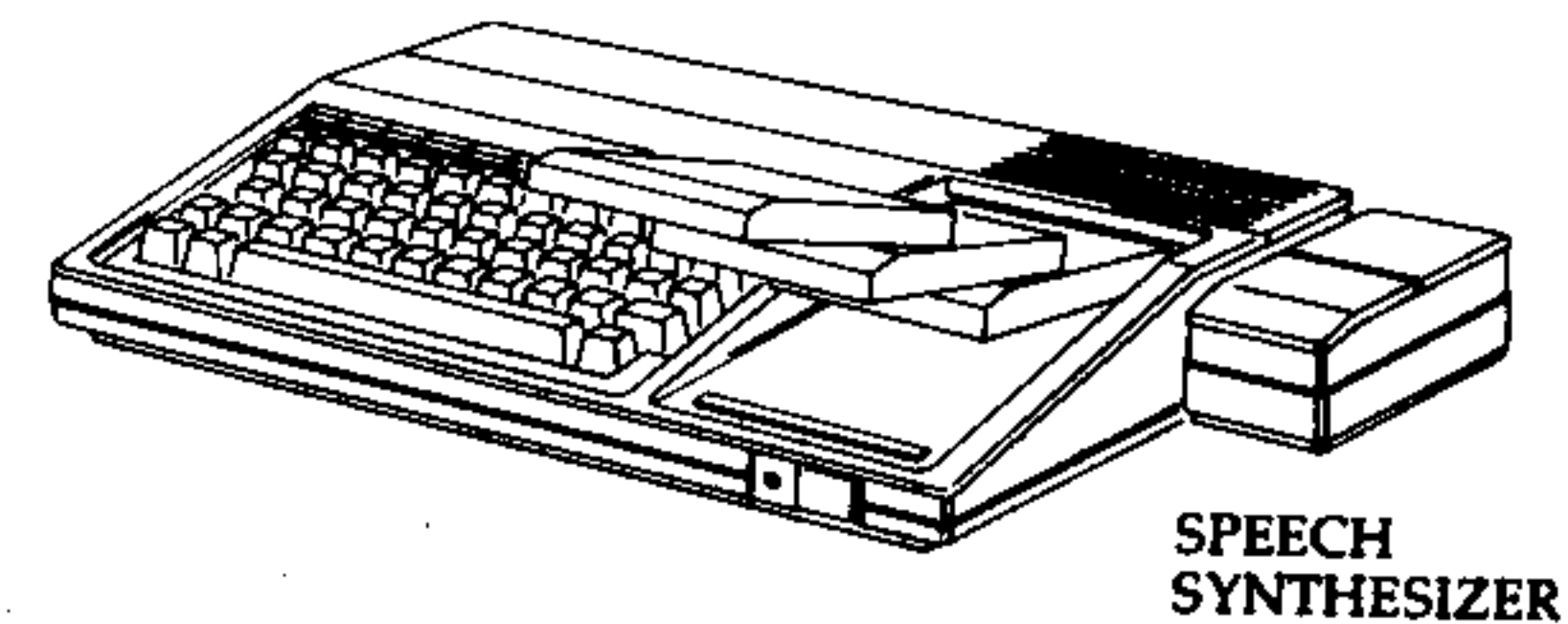


MONITOR



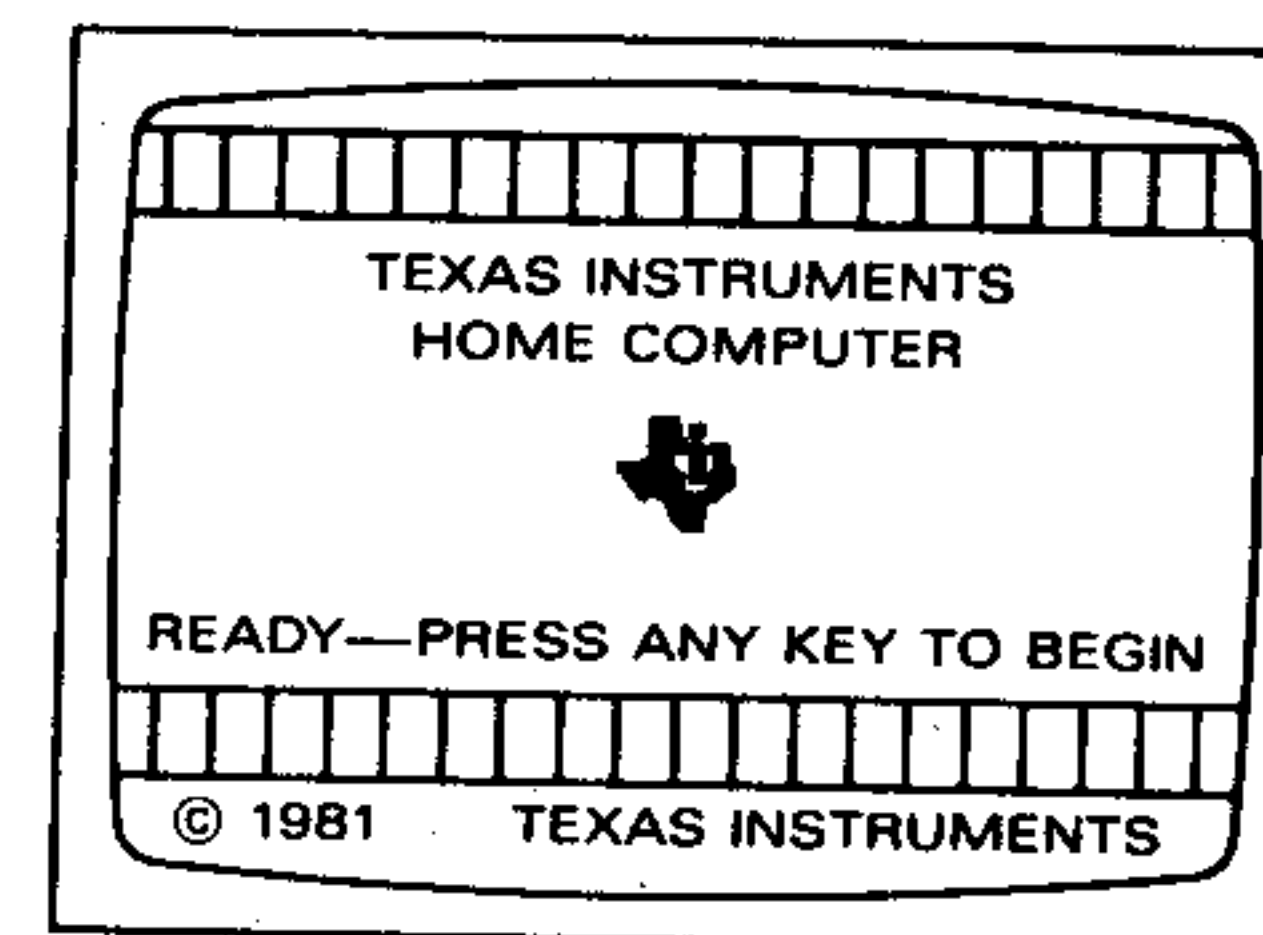
COMPUTER KEYBOARD

2. Insert module.



SPEECH SYNTHESIZER

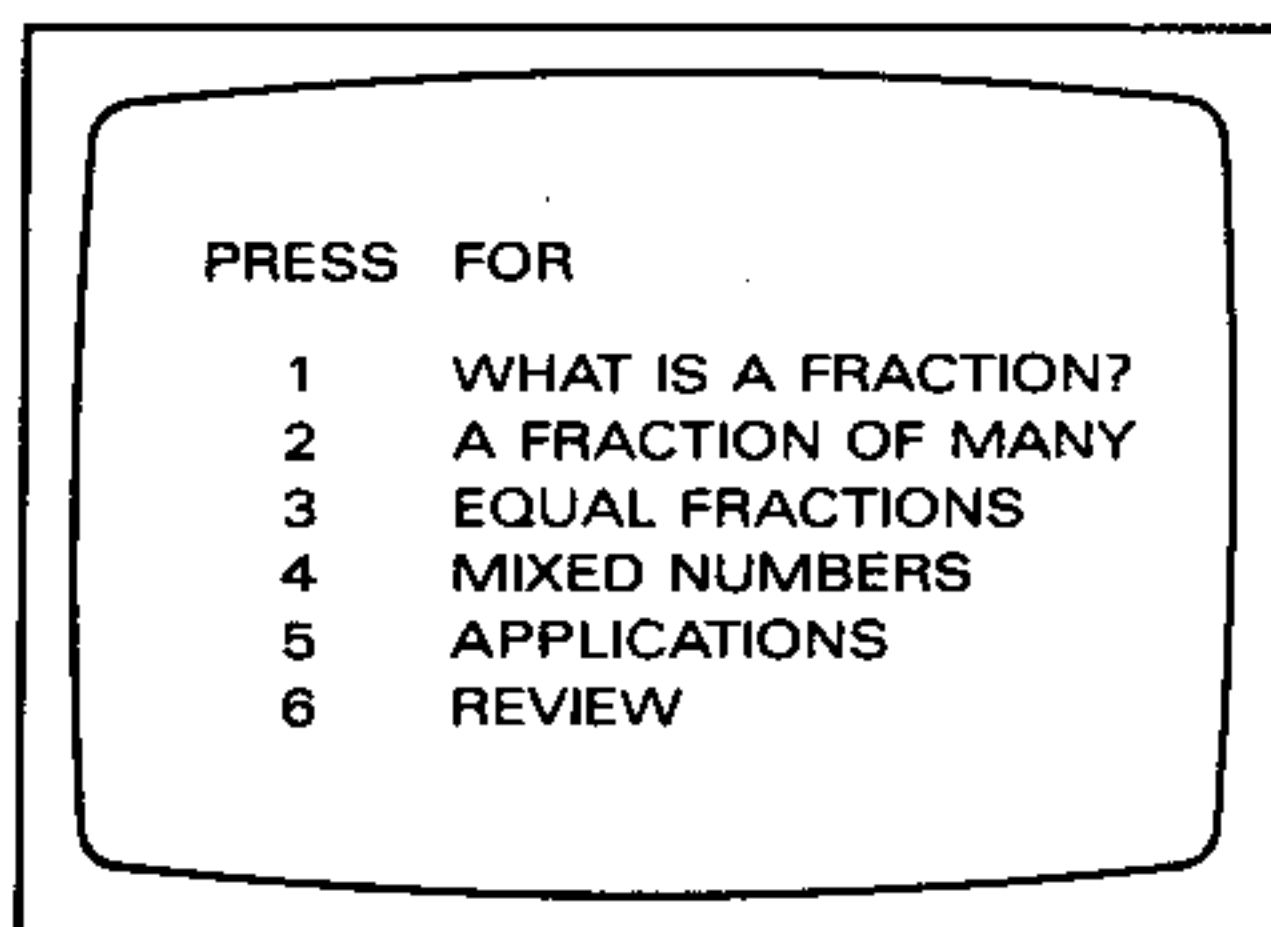
3. Wait for this screen to appear.



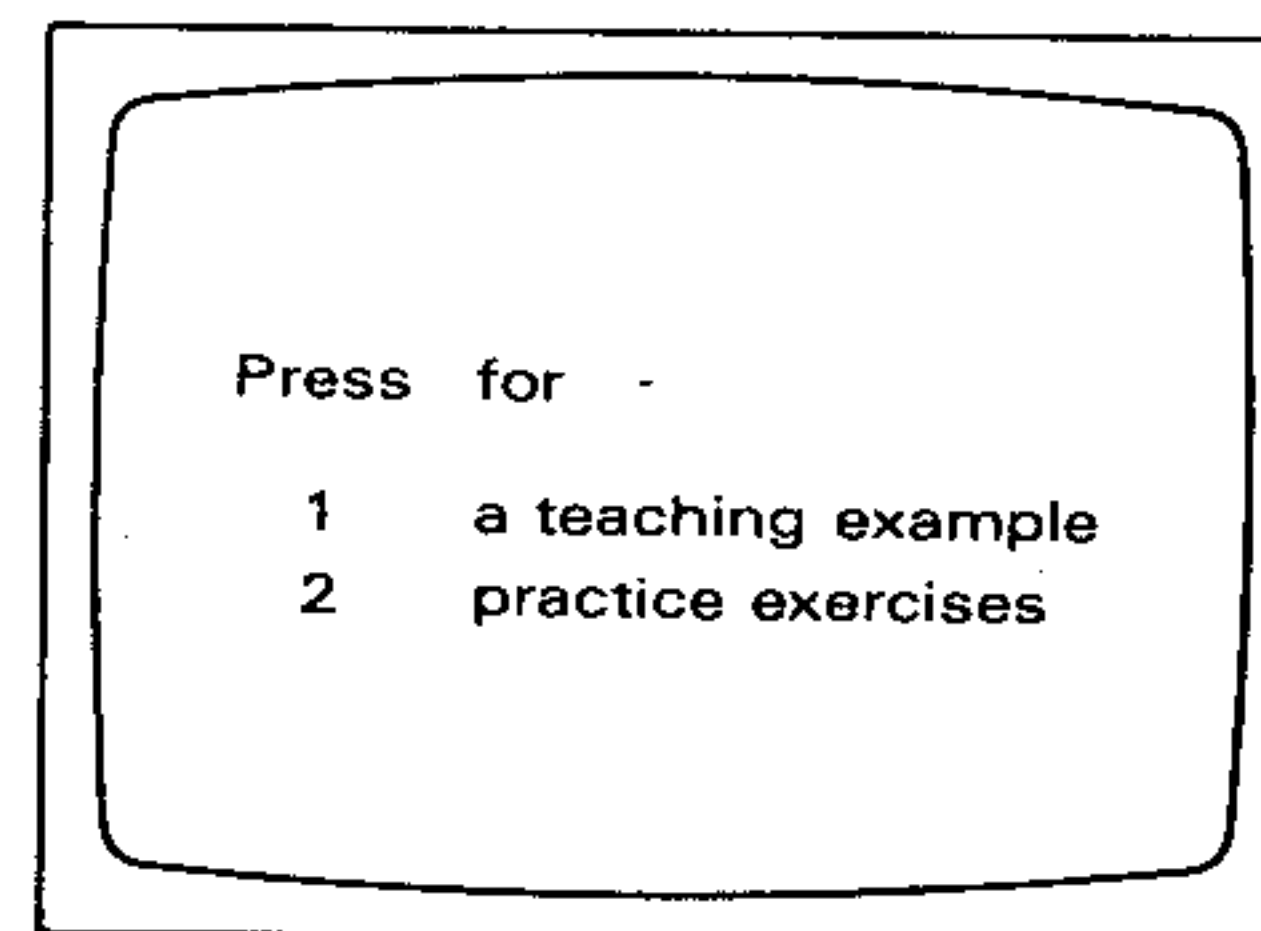
4. If you do not see the Texas Instruments title screen, check to see if:

- the computer keyboard and monitor are plugged in.
- the cable connecting the keyboard and monitor is properly connected.
- both the computer and monitor are turned on.
- the module is properly inserted.

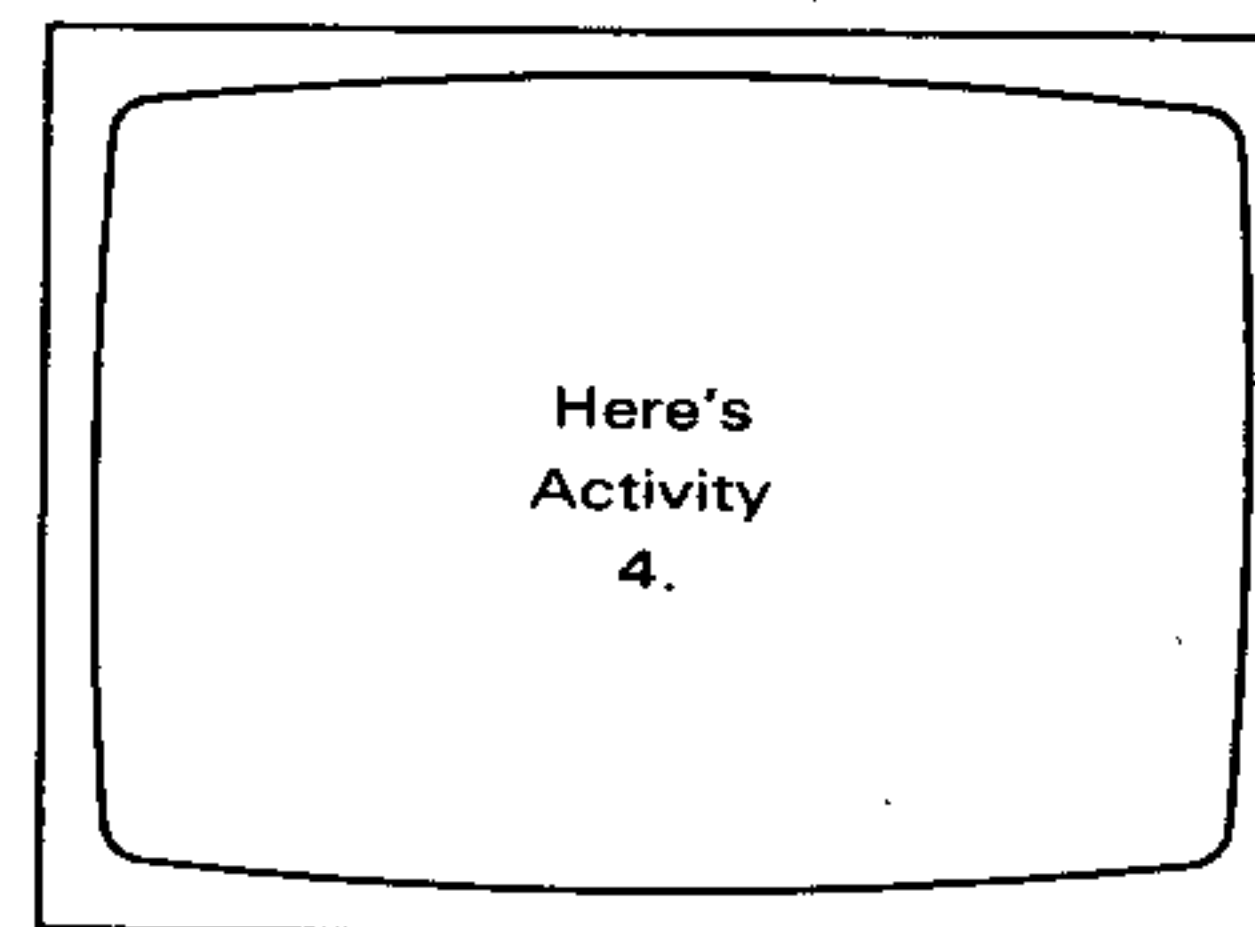
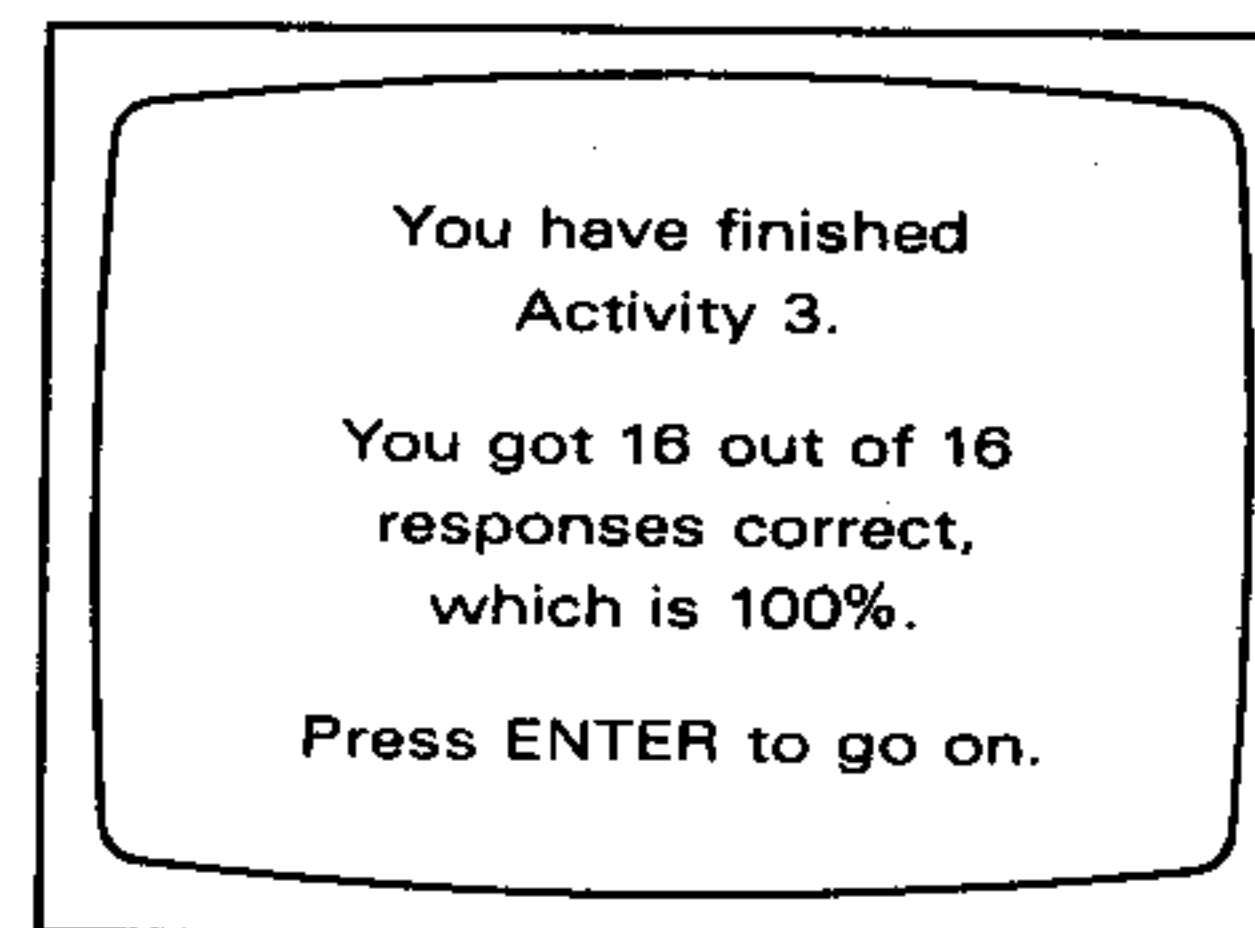
Press any key. The Scott, Foresman copyright screen and the **Fractions 1** title screen are displayed. Next you will see the main selection list of activities:



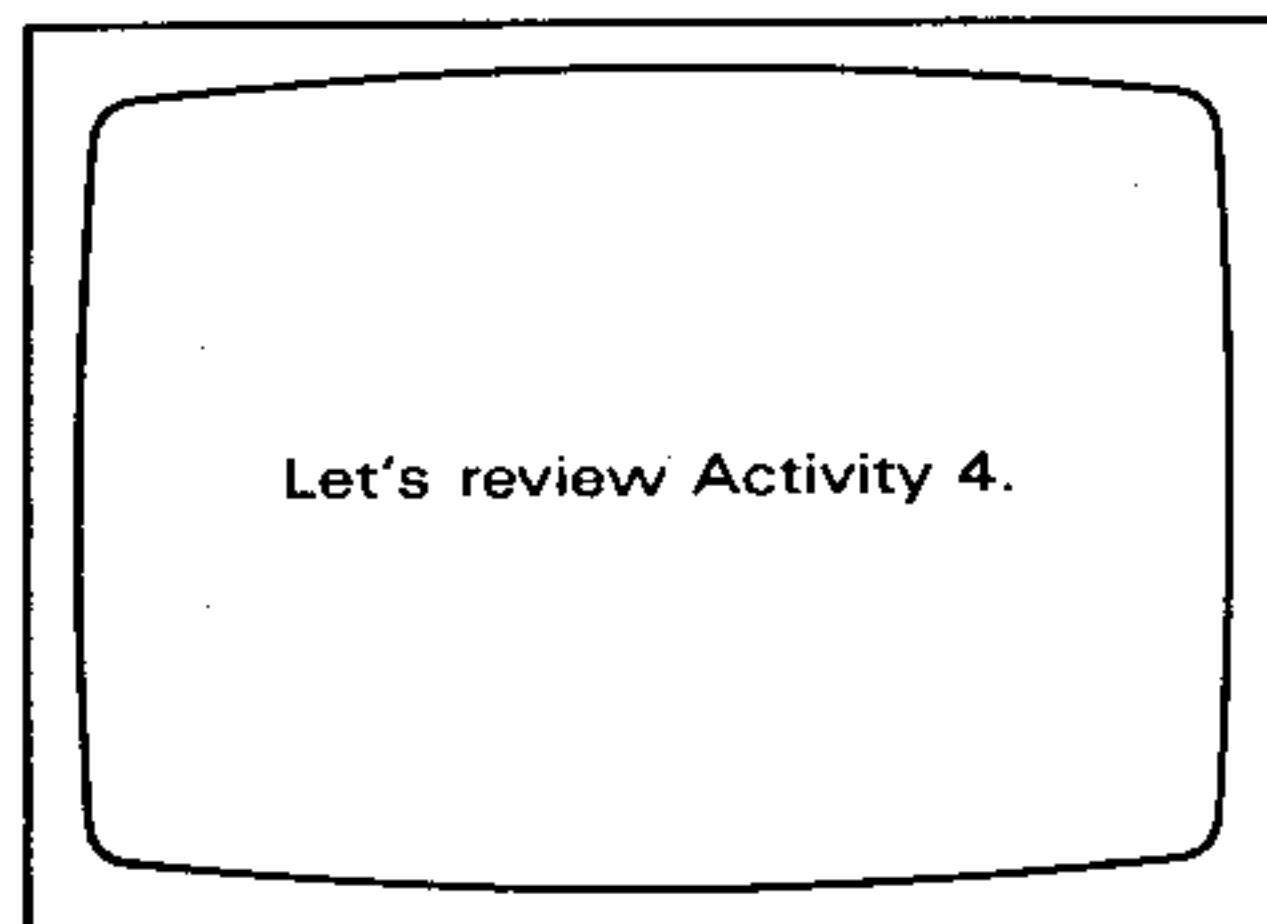
The activities should be done in order since each activity is more advanced than the one before it. If you are working on the module for the first time, press 1 to go to the first activity. If you have worked with the module before, press the number of the next activity you want to do. When you press a number the activity title screen will appear. Then in the first five activities the computer will ask you to make a choice.



Press 1 to see a teaching example. You may see as many examples as you want before doing the practice exercises. Press 2 to go directly to the practice exercises. Follow the directions on the screen for each activity. As you do the exercises, the computer keeps track of how you are doing. If your score is 80% or higher you will see your score, and you can go on.



If, however, your score is less than 60%, you will see the following screen, and a sample problem will be shown. You can see as many sample problems as you want before a new set of practice exercises is given.



If your score is between 60% and 80% the computer will continue giving problems until your score falls below 60% or goes above 80%.

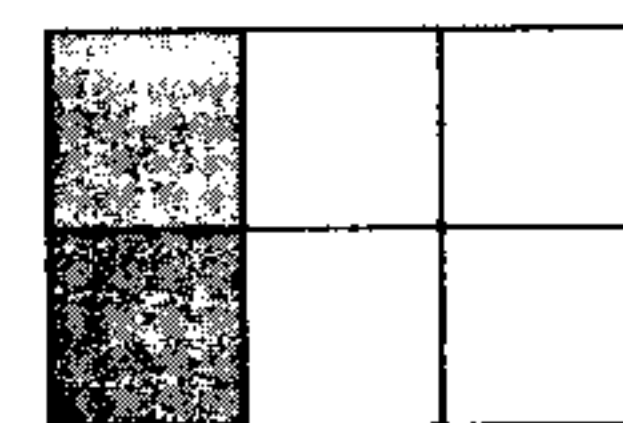
You can use the special function keys to return to the list of activities at the beginning of the module, to start an activity over again, or to get help with the activity you are working on. See the inside front cover of this book for an explanation of these and other special functions built into **Fractions 1**.

When you are finished working on the module, press FCTN = (QUIT). The Texas Instruments title screen will reappear and you may safely remove the module.

ABOUT THE ACTIVITIES

1. What Is a Fraction?

The teaching examples illustrate what the numbers in a fraction represent and introduce the words used for reading fractions aloud. The practice sections require children to identify what fraction of a whole is shaded and to write a fraction when it is expressed in words rather than in numbers.



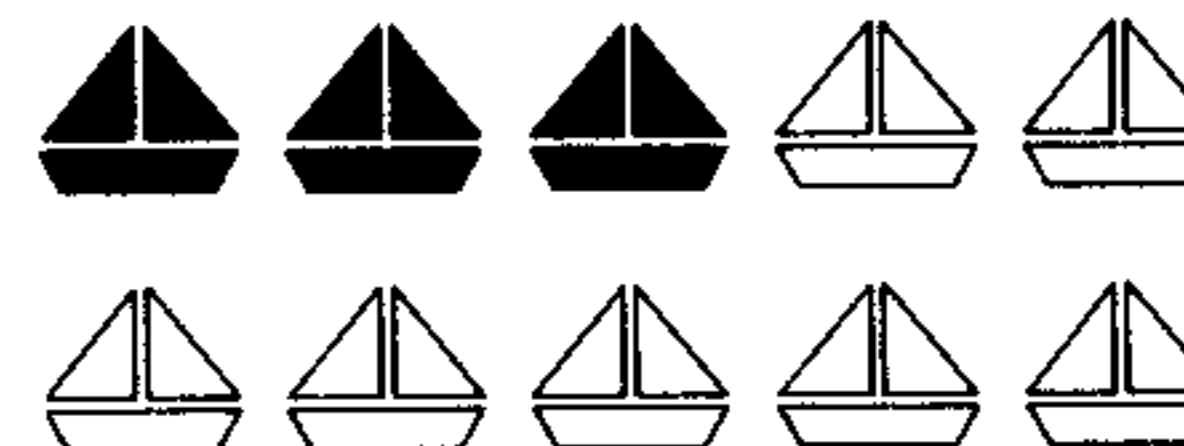
$\frac{2}{6}$ is shaded.

Two sixths is shaded.

$\frac{2}{6}$ is a fraction.

2. A Fraction of Many

The teaching section focuses on identifying and illustrating a fraction of a group of objects. In the practice exercises, when a group of objects is shown, children must determine what fraction is shaded. Children are also asked to illustrate a given fraction by using the space bar to shade part of a group of objects.



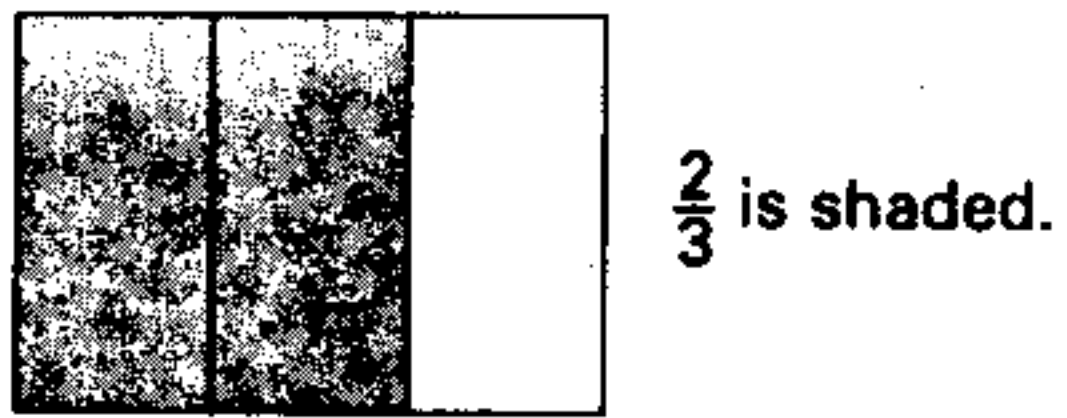
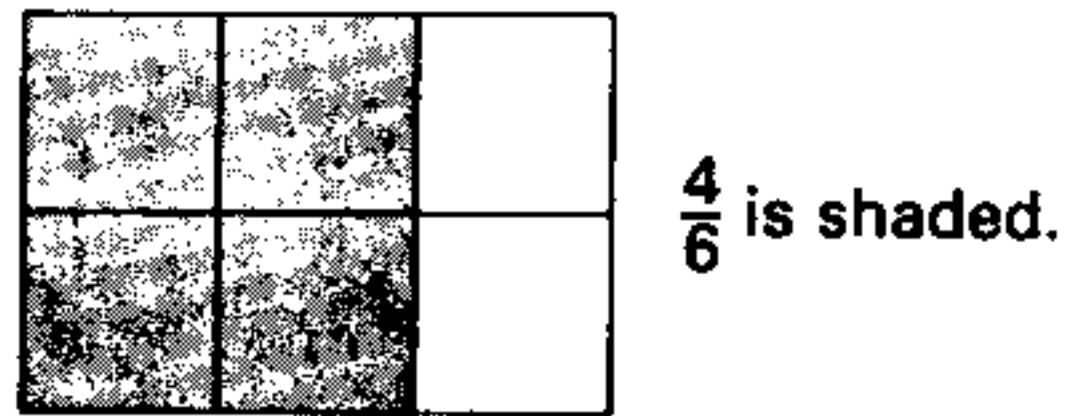
How many are black? 3

How many in all? 10

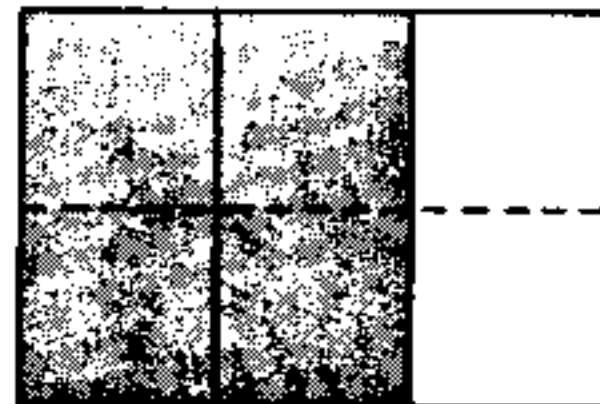
What fraction are black? $\frac{3}{10}$

3. Equal Fractions

The teaching section uses rectangles of equal size to illustrate equal fractions. The rectangles have an equal amount of shaded area, but each rectangle has a different number of equal partitions. In the practice exercises children must fill in the missing numbers of equivalent fractions. The rectangle pictures are displayed, if necessary, as an aid to answering the problem.



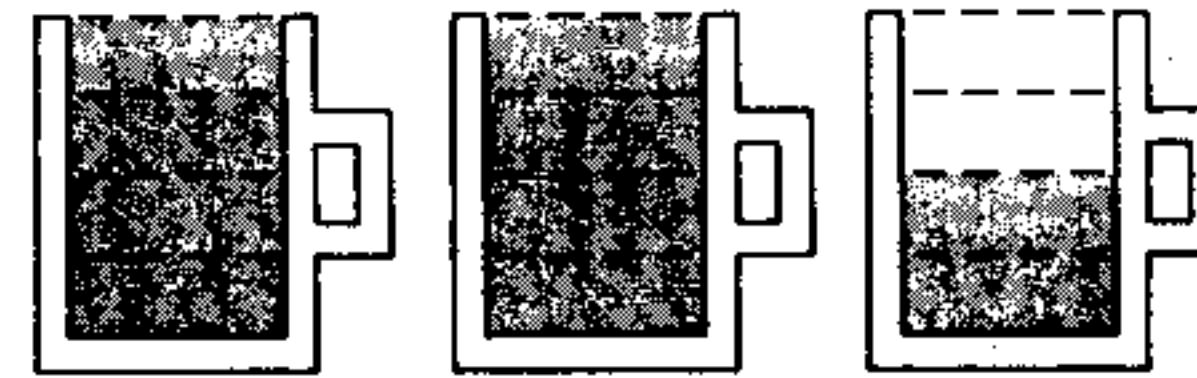
$$\frac{4}{6} = \frac{2}{3}$$



Four sixths equals two thirds.

4. Mixed Numbers

The teaching section uses sets of containers which are filled or partially filled to illustrate mixed numbers. In one set of practice exercises children must give the mixed number that is represented in the picture. In the second set of exercises a set of objects is displayed on the screen, and the space bar must be used to shade the objects to represent a given mixed number.



$2\frac{2}{4}$ mugs filled.

There are three mugs.
Two and two fourths
are filled.

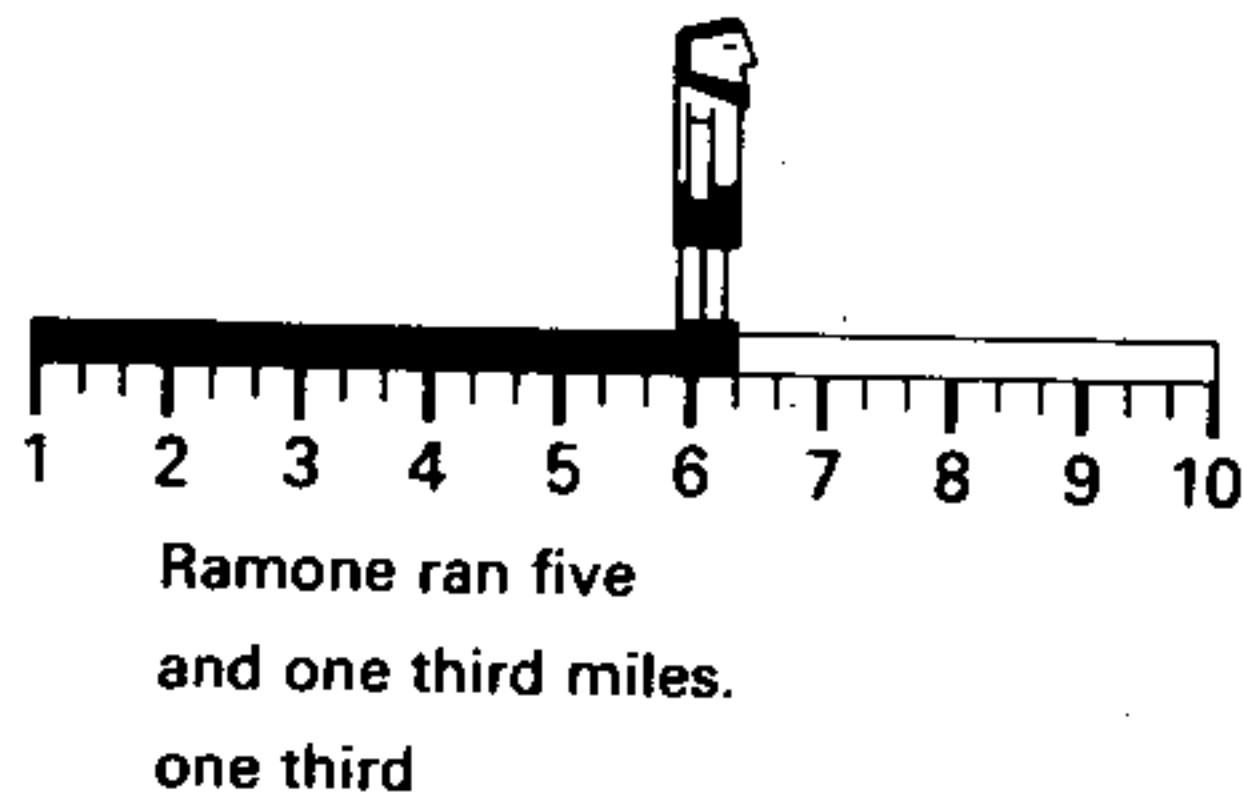


whole number $\Rightarrow 2\frac{2}{4} \Leftarrow$ fraction

$2\frac{2}{4}$ is a mixed number.

5. Applications

A number line is used to illustrate how mixed numbers might be used to indicate the distance a person has traveled. Children must use the space bar to move a figure a given distance on the number line.



6. Review

The Review gives problems from each of the first five activities. Only one opportunity is given to respond correctly to a problem. At the end of the activity a score is given, as well as a list of activities that require more practice.

MODULES IN THE SERIES

Other mathematics modules in the Scott, Foresman Mathematics Courseware Series for the Texas Instruments Home Computer include:

TITLE	CONTENT	AGES
Addition & Subtraction 1	Introductory addition and subtraction skills	5-7
Addition & Subtraction 2	Basic addition and subtraction skills	6-8
Addition & Subtraction 3	Addition and subtraction with renaming (carrying and borrowing)	7-9
Numeration 1	Number concepts with 1-, 2-, and 3-digit numbers	5-8
Numeration 2	Number concepts with large numbers	7-11
Multiplication 1	Basic multiplication skills	7-9
Multiplication 2	Multiplication with renaming (carrying)	8-10
Division 1	Basic division skills	8-11
Fractions 1	Introductory fractions concepts	9-11
Fractions 2	Addition and subtraction of fractions	9-11
Decimals 1	Introductory decimals concepts; addition and subtraction of decimals	9-11
Decimals 2	Multiplication of decimals	10-11

Contact Scott, Foresman Electronic Publishing for information about these and other Scott, Foresman courseware packages. Special teacher materials are also available.

CARING FOR THE MODULE

1. Modules require the same care that you would give any piece of electronic equipment. Keep them clean and dry.
2. Do not touch the recessed contacts in the module.
3. Avoid a build-up of static electricity by using an anti-static spray or a humidifier if the computer is in a particularly dry location.
4. If the module is accidentally removed from the slot while the module contents are being used and the computer behaves erratically, turn the computer off, wait a few seconds, reinsert the module, and then turn the computer on again.

SOFTWARE MEDIA LIMITED WARRANTY

Scott, Foresman and Company extends this consumer warranty only to the original consumer purchaser.

Warranty Coverage

This warranty covers the case components of the software package. The components include all cassette tapes, diskettes, plastics, containers, and all other hardware contained in this software package ("the Hardware"). This limited warranty does not extend to the programs contained in the software media and in the accompanying book materials ("the Programs").

The Hardware is warranted against malfunction due to defective materials or construction. **This warranty is void if the Hardware has been damaged by accident or unreasonable use, neglect, improper service, or other causes not arising out of defects in material or construction.**

Warranty Duration

The Hardware is warranted for a period of 90 days from the date of original purchase by the consumer.

Warranty Disclaimers

Any implied warranties arising out of this sale, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the above 90 day period. Scott, Foresman and Company shall not be liable for loss of use of the Hardware or other incidental or consequential costs, expenses, or damages incurred by the consumer or any other user.

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This warranty gives you legal rights, and you may also have other rights that vary from state to state.

Performance by Scott, Foresman Under Warranty

During the 90 day warranty period, defective Hardware will be replaced when it is returned postage prepaid with proof and date of purchase to your Scott, Foresman Electronic Publishing dealer. The replacement Hardware will be warranted for a period of 90 days from date of replacement. Other than the postage requirement, no charge will be made for replacement. Scott, Foresman and Company strongly recommends that you insure the Hardware for value prior to mailing.

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PROGRESS CHART

Put an X in a box each time you start an activity.
 When you finish the activity, fill in the number
 of problems that you got correct and the number
 of total problems that you did. Also fill in the
 percentage score the computer gives you.

1 WHAT IS A FRACTION? Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------	--------------------------	--------------------------	---

2 A FRACTION OF MANY Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------	--------------------------	--------------------------	---

3 EQUAL FRACTIONS Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
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4 MIXED NUMBERS Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
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5 APPLICATIONS Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
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6 REVIEW Score

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	out of	<input type="checkbox"/>	<input type="checkbox"/>	%
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List the activities you need to review: