## Elementary Math with TI

Overview
Students will choose a number, create stories to go with the number, illustrate their stories, and represent the action in their stories on the calculator.

Grade Levels: 1-2

Concepts

- Whole numbers
- Addition
- Subtraction
- Problem solving

Materials

- 䔍 Cl -10 calculators

Note: the TI-15 Explorer ${ }^{\text {TM }}$ can be used in place of the T-10 for this activity.

- Ten Black Dots

Crews, Donald (New York, NY: Greenwilliow, 1986)

- One Hungry Monster

Heyboer O’Keefe, Susan; Munsinger, Lynn (Boston, MA: Joy Street books, 1989)

- Anno's Counting House

Mitsumasa, Anno (New York, NY: Philomel Books, 1982)

- Counters, beans, or bear stickers (provided)
- Student activity sheet
- Pencils


## Assessment

Throughout the activity, questions are included for formative assessment. Student work should be used as a check for understanding. Have the students use the chart and counters along with the $\mathrm{TI}-10$ to create a number story.

## Introduction

1. Have students choose a number. Display the number on a sheet of paper.
2. Work with the whole class to make up a story using that number.

Example: Here is a story for the number 5. Three bears were asleep in their cave. Two more bears wandered in, and then there were five bears in the cave.
3. Model the action in the story using counters, beans, or the bear stickers provided in this document. You could also ask a student to draw a picture of the action in the story.
4. Have students represent the action in the story on their calculators and write the problem in the space provided on their activity sheets.
5. Have students work in pairs to make up three more stories to go with the same number. Then have them draw illustrations and use their calculators to represent the numbers in the new stories.

To help spark some creative stories, read Ten Black Dots, One Hungry Monster, or Anno's Counting House with students.
6. Have students select another number and repeat the process.

## Collecting and Organizing Data

Have students discuss the actions in their stories while they create situations to illustrate their number stories.

## Questions for Students:

* How could you show the action in your story with counters? With a picture?
* What math operation could show the same action?
* Can you make up a different story using the same action?
* Can you make up a different action story about the same number?
* Can you make up a story using several different actions?
* How could you illustrate that?


## Using the Calculator

- How can the action in your story be represented on the calculator?
- What do the numbers you are pressing on your calculator represent in your story?


## Analyzing and Drawing Conclusions

After students have made up their stories, illustrated them, and represented them on their calculators, have them work as a whole group to analyze their stories.

## Questions for Students:

* Will you share your story and describe the action in it?
* Which operation did you use to represent the action in your story?


## Using the Calculator

- How did you use the calculator to help you show the action in your story?
- Does the order in which you entered the numbers in your calculator matter to your story? Why or why not?


## Continuing the Investigation

Have students:

- Select other numbers and repeat the process for each number.
- Record number sentences to describe the actions in the new stories and decide how to use the calculator to represent the numbers.


## Elementary Math with TI

## Action-Packed Stories Counting Bears



## SOLUTIONS



Name
Date

Focus: Write stories about a number. Sample answers:


