

THE CSMP LIBRARY

MATH STORY-WORKBOOKS

2-32701

SUMMER SCHOOL

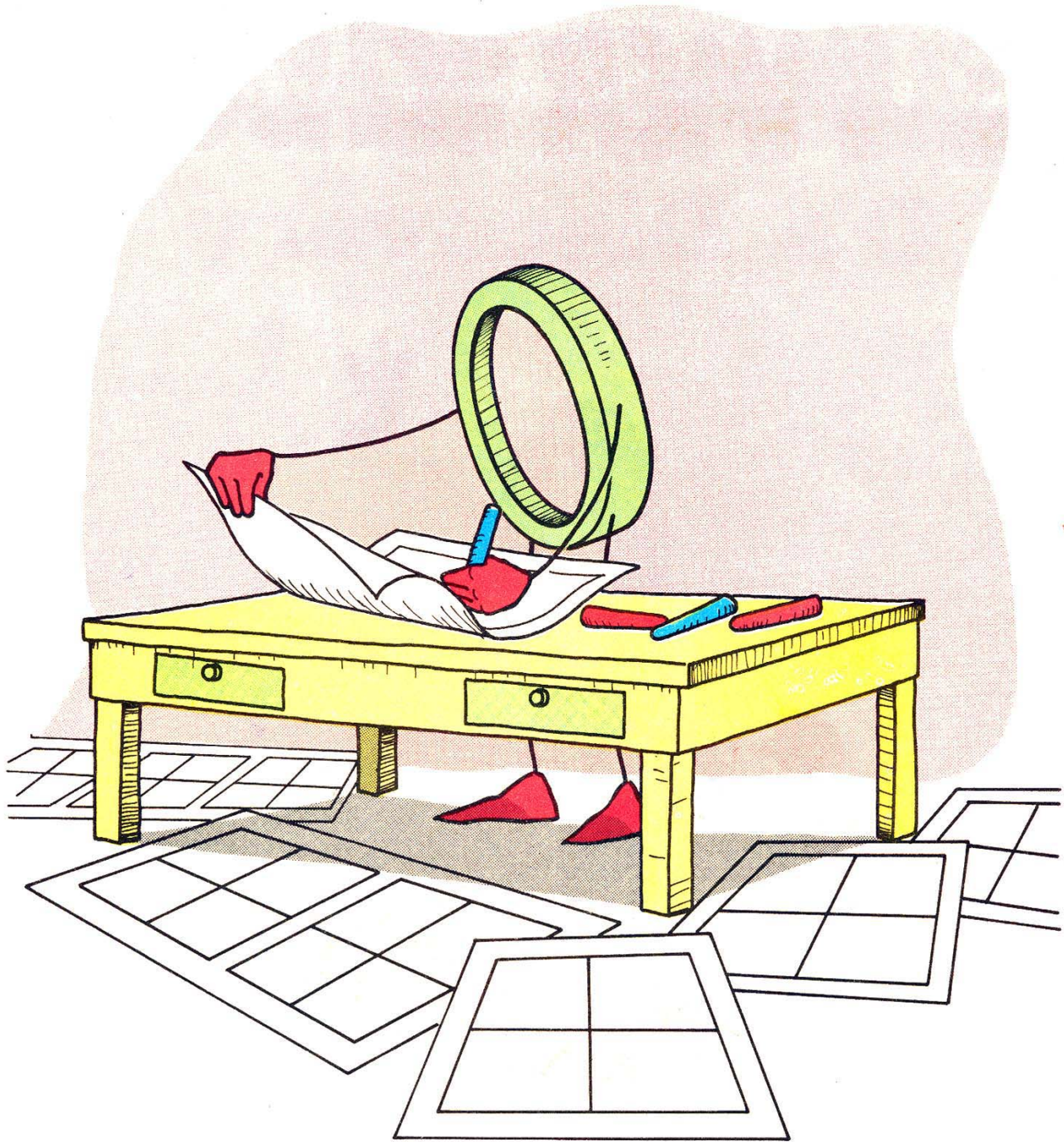
O's Discovery

by
Frédérique

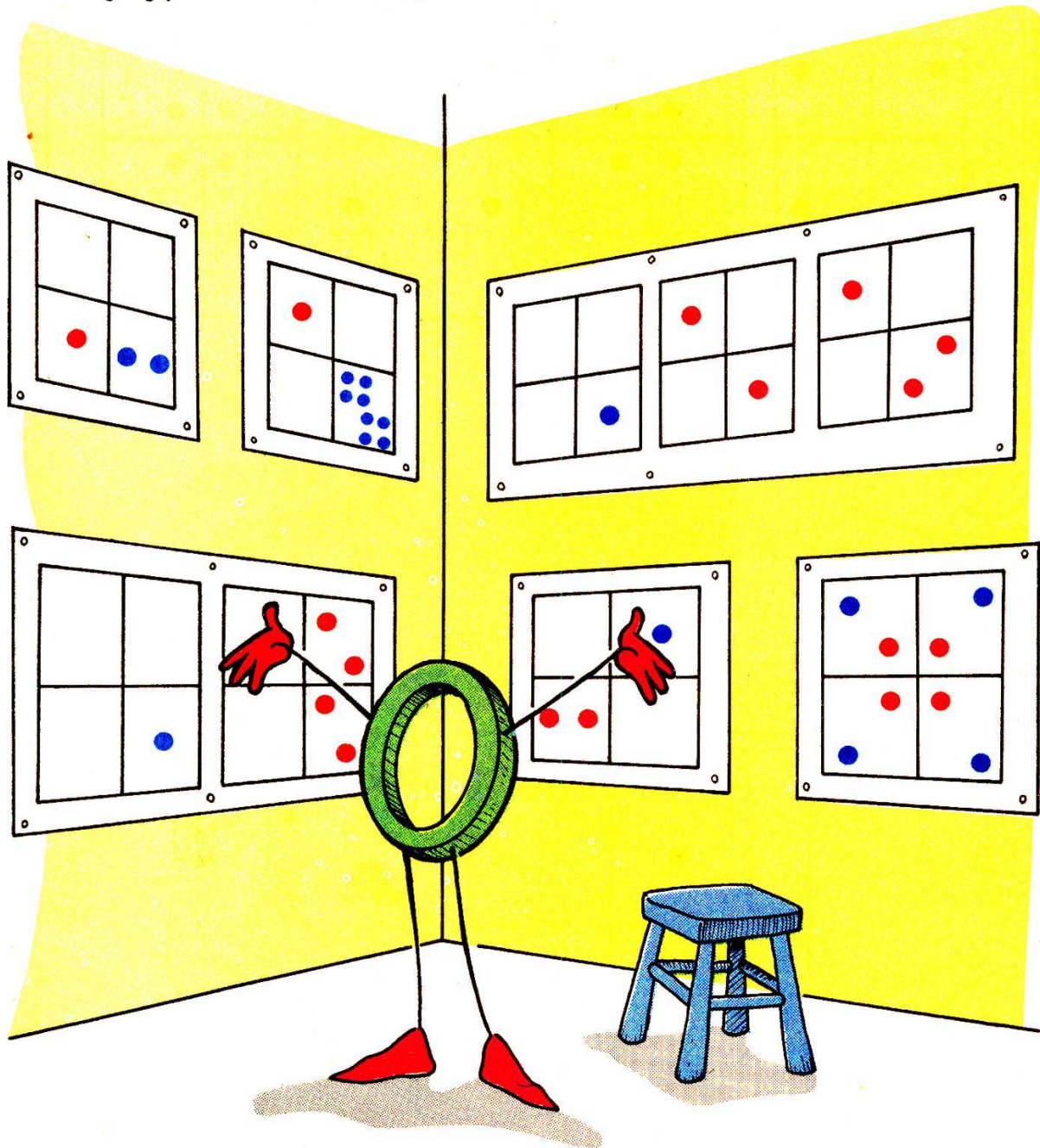


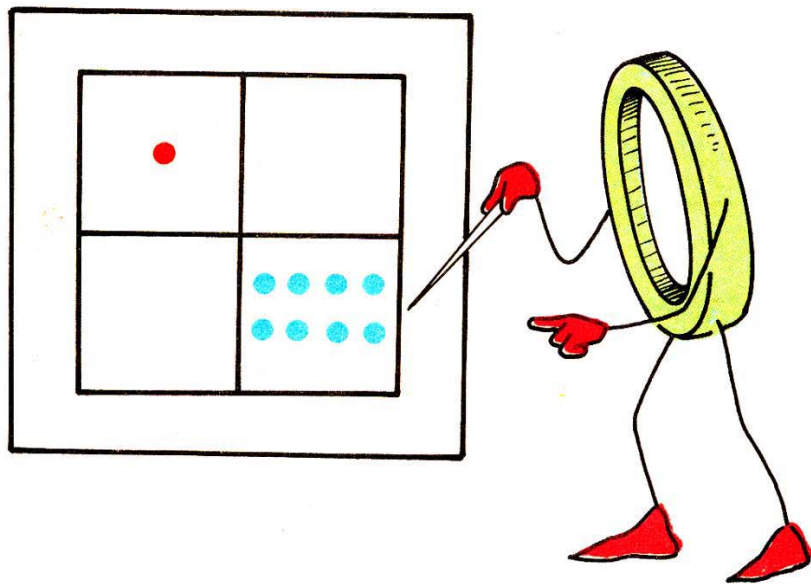
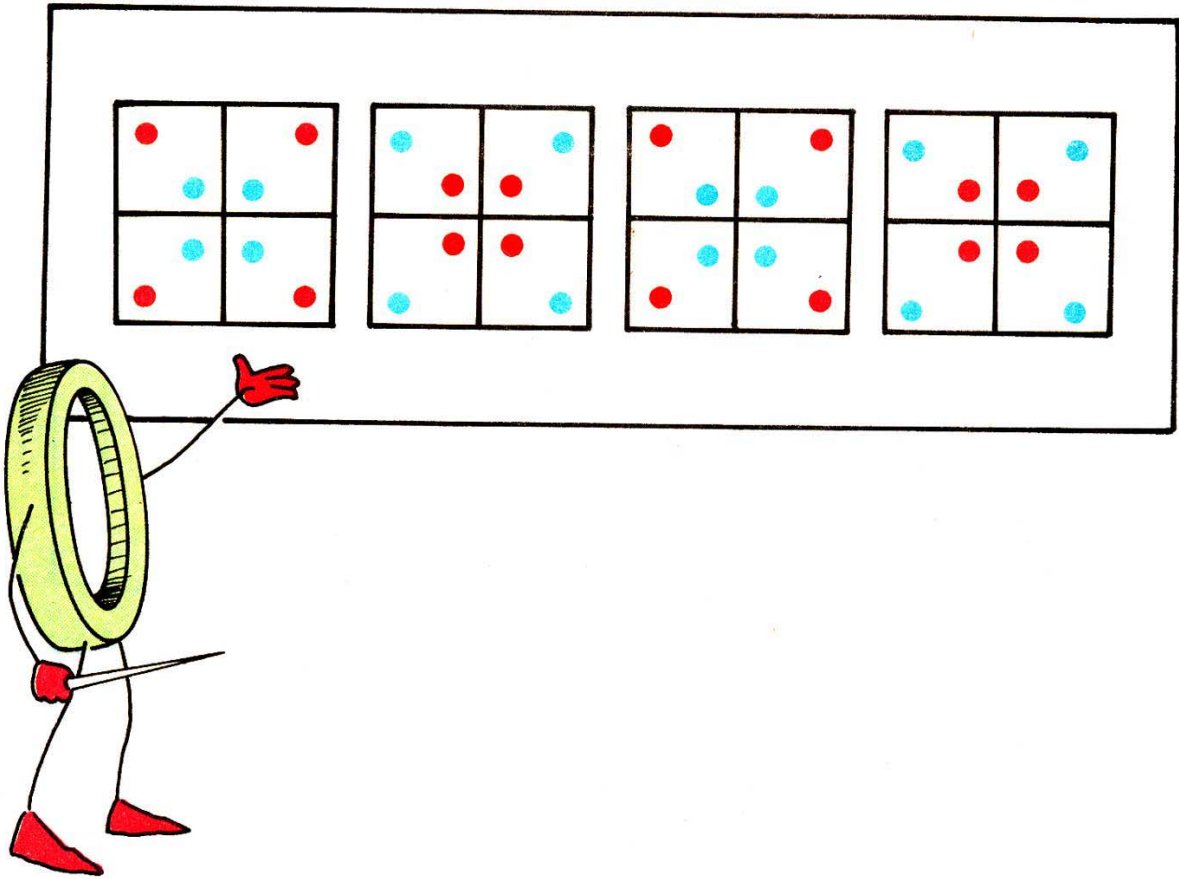
Pictures / Design
Steven Sims

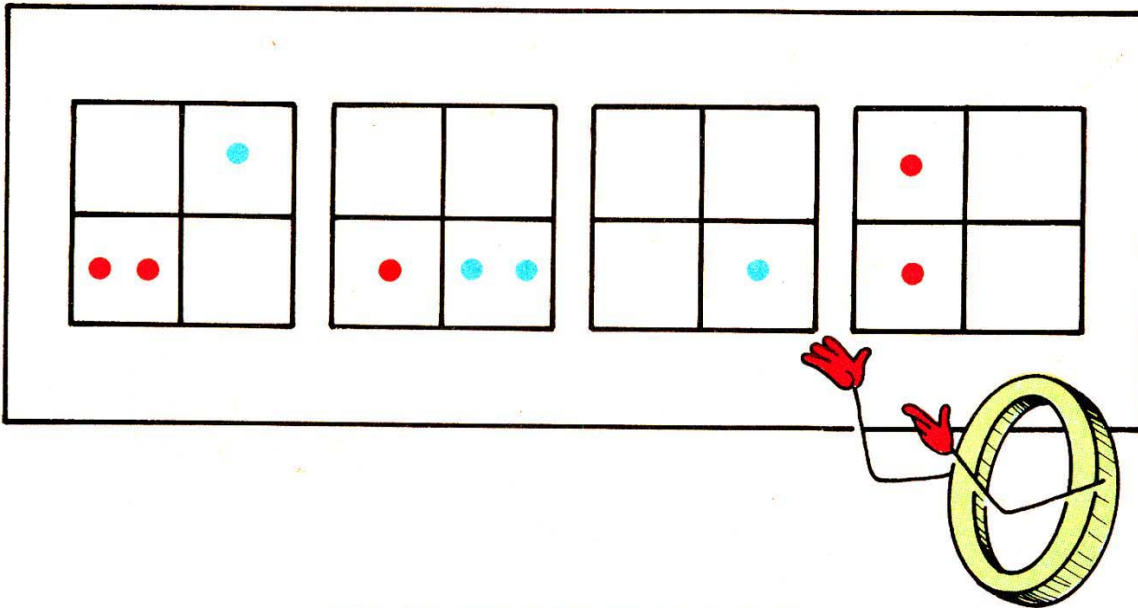
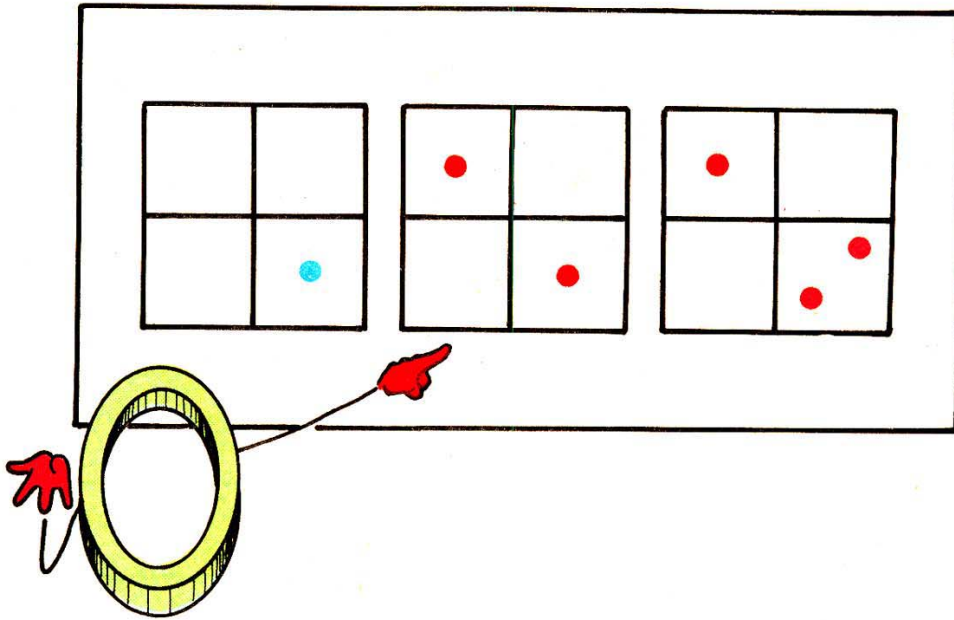
"Upon arriving at school," our great-grandmother told us, "I immediately began drawing posters with red checkers and blue checkers."



"When the other numbers returned from lunch, they found 0 happily hanging posters on the walls.



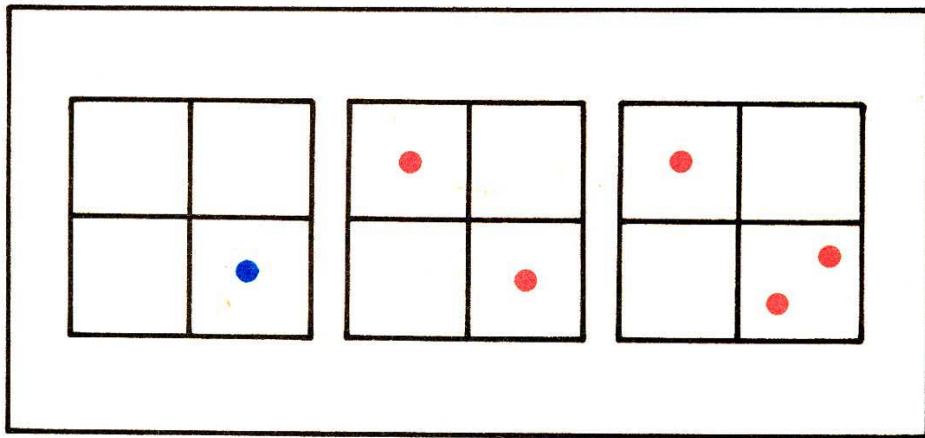




DO YOU UNDERSTAND 0's IDEA?

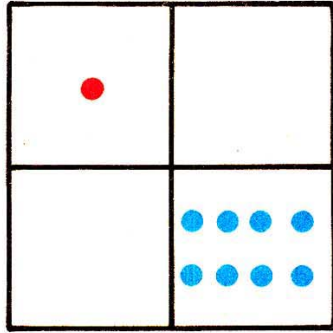
The other numbers looked at 0 in surprise. At first they didn't understand the posters, and they were very angry.

"You must be crazy," yelled 200 pointing to this poster.



"This is a picture of me. It has nothing to do with you!"

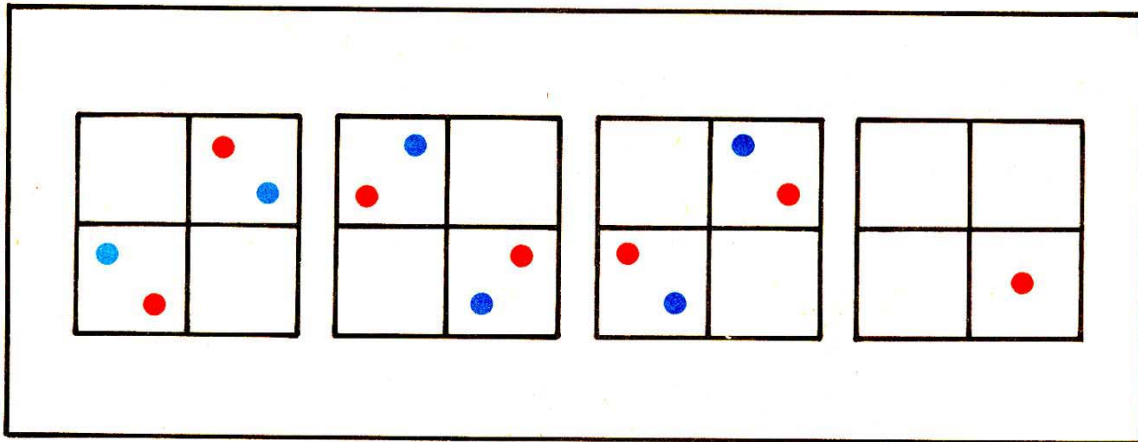
"That's what I thought about this poster," shouted 16.



All of the numbers except 1 began to insult 0.

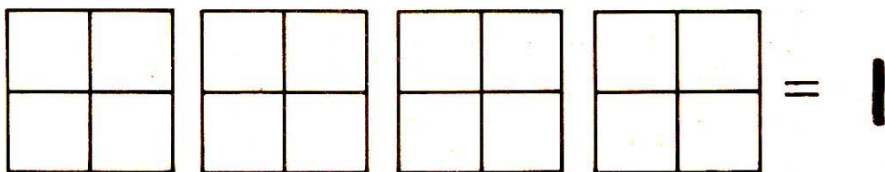
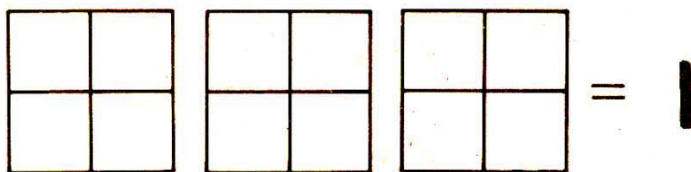
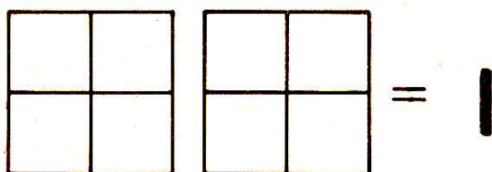
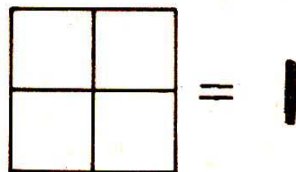
"Would you please be quiet for a minute," said 1, "and try to understand 0's point of view. I think 0 has a great idea."

I took some blue checkers and some red checkers from 0's bag and made this poster.

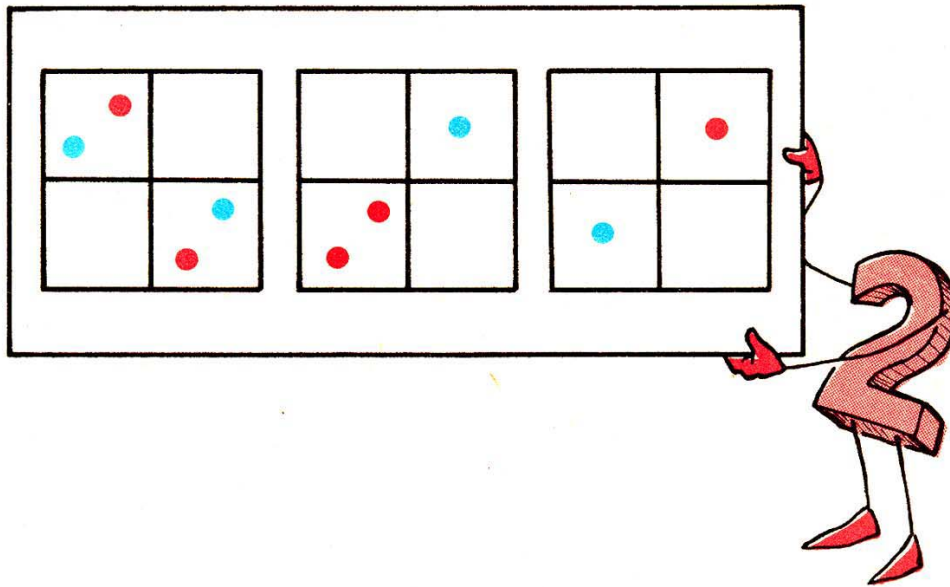


"This is a new picture of me," 1 said proudly. "With checkers of two colors, I can show myself in many new ways."

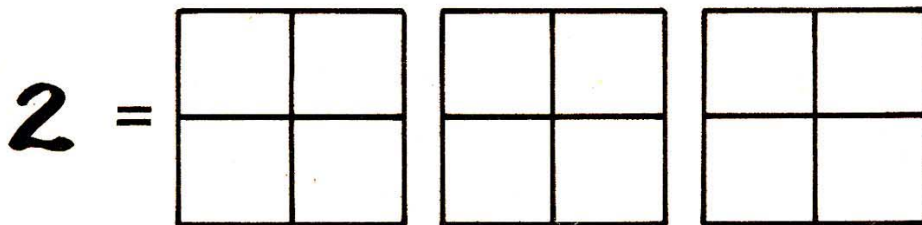
Show 1 in other ways with red (positive) checkers and blue (negative) checkers.



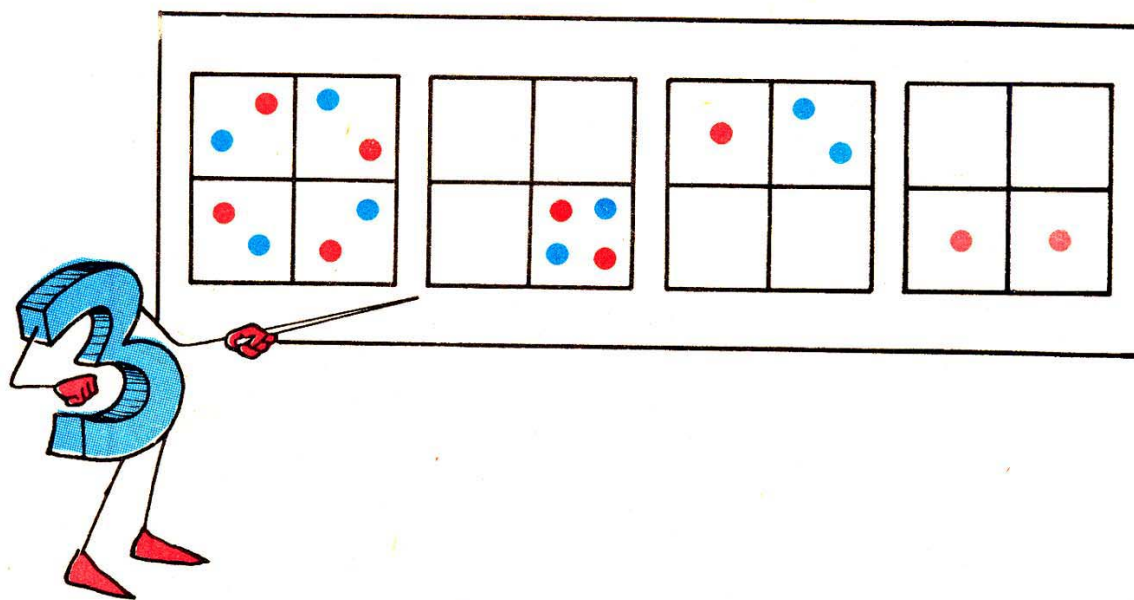
"Here I am," said 2, by holding up this poster.



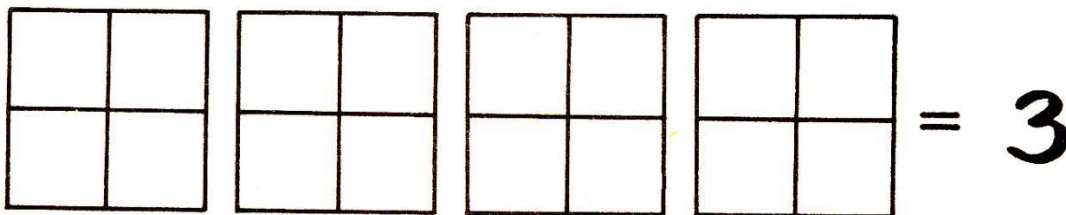
Show 2 in another way with red (positive) checkers and blue (negative) checkers.



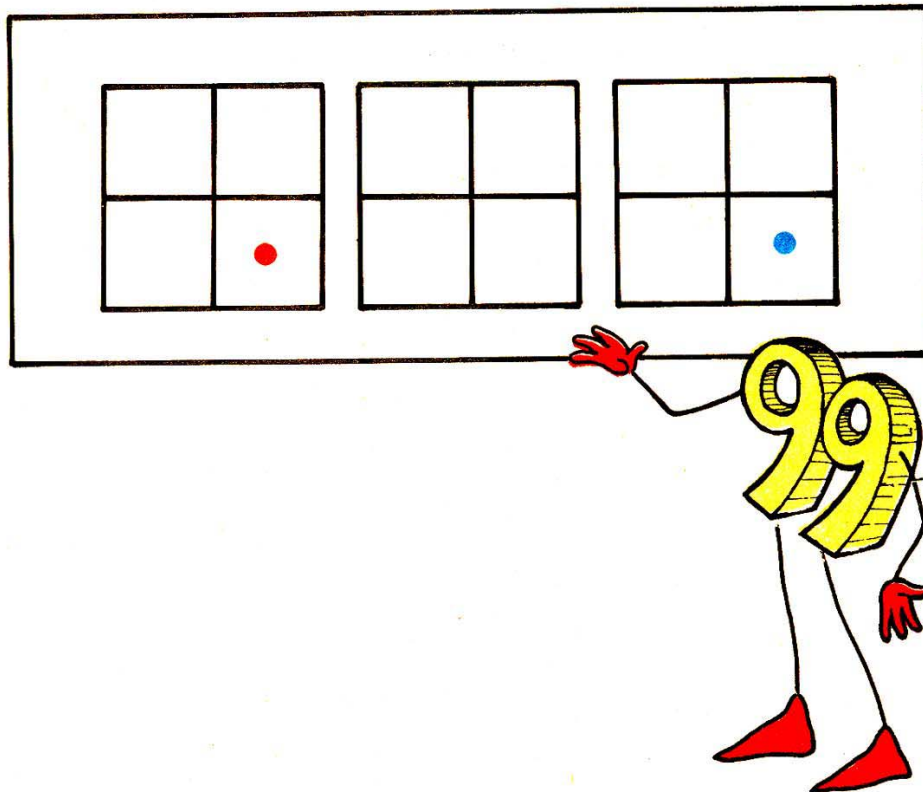
"It's fun showing myself with more than three checkers," said 3, pointing to this picture.



Show 3 in another way with red (positive) checkers and blue (negative) checkers.



"It's the first time that I've been able to show myself with only two checkers," claimed 99.



One after the other, all of the numbers began to see 0's point of view and they spent an exciting afternoon trying to find many ways of showing themselves with red checkers and blue checkers.

Show each of these numbers with one red (positive) checker and one blue (negative) checker.

$$\begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} = 7$$

$$\begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} = 16$$

$$\begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} = 98$$

$$\begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} = 999$$



THE CEMREL LIBRARY
Math Story-Workbooks

Current List

Ages 8-11

Summer School — 0's Discovery
Rollerskating 37
To Picture
The Island of Tam-Tam

Ages 9-14

Summer Camp
Halloween Puzzles
1,000's Dream
A Strange Country
Not Too Close
Clinton Street
Seven Secret Numbers
Shunda's Newsstand

A series of story-workbooks providing fanciful excursions in the colorful world of mathematics for all young people, their teachers and their parents, actively involving them in the acquisition of new mathematical insights.

Copyright © 1981 CEMREL, Inc.

Did you know that the whole numbers go to school during the summer? It appears that an important part of their school day is spent presenting themselves to one another in a variety of ways. In great-grandmother's day, the numbers used bundles of sticks for their presentations. Many numbers found carrying sticks terribly inconvenient. For example, the number 24,367 had an enormous mountain of sticks to bring each day to school. How times change! With the arrival of a great modern convenience, Papy's Minicomputer, numbers no longer needed to carry anything more than a small bag of checkers. (24,367 needs no more than nine checkers; and some say even fewer!)

"Summer School in the Old Days" (a storybook in the STORIES BY FREDERIQUE collection) tells this story. A wealth of information is provided both in the detailed illustrations and in the words of the text. The story offers its readers an opportunity to gain new insights into the whole numbers and to extend their perspective to include a first idea of negative numbers. A glimpse of this wider range of numbers is given when the number 0 finds a new presentation. Then in "Summer School - 0's Discovery" the reader explores with the numbers the unending variety of ways of presenting 0 and, in fact, other whole numbers.

Ed and Pam