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## To Teachers

*Counting* presents a unique approach to introducing numbers to young children by integrating social studies, science, and fine arts in each activity. The activity pages can be colored and saved to assemble later in a booklet. They include puzzles, coloring activities, cut-and-paste projects, and games. Each activity was specially designed to reinforce the basic mathematics skills that are commonly introduced at the early childhood level. Every numbers unit is full of activity pages that allow children to study the concept inside and out, upside down, and right-side up, until they “own” that concept and it becomes a part of them. The important thing is to focus on the celebration of learning each concept!

# Special Teaching Tips

Educators have known for years that children learn in different ways. Some learn best from hearing information, others must see it, and still others must experience it by touching it. That is quite a challenge when teaching children about numbers. But you will find herein activities that will help young learners experience the numbers in a variety of fun-filled ways.

1. Remember, most students will not be able to read the directions found on each page, so begin each number activity by reading the directions to the students. Make sure all students understand what they must do to complete the page before having them work independently.
2. Each new concept is in terms that young children can grasp. Children can color these pages and save them to assemble later into a review booklet. Discuss the concepts carefully with children before you let them work independently on the skills practice pages.
3. The book begins by introducing very basic counting skills, such as making dots or tally marks to represent numbers of items. The book progresses to help students discover why symbolic numeration systems were developed to make our lives easier.
4. Subject areas such as science, social studies and art are also integrated into the pages. When appropriate, use these pages to tie in with your other curriculum areas and themes. For example, if you are using the maths pages with ocean creatures on them, you may want to introduce basic oceanography as a science lesson.
5. The skills introduced are sequential, so you probably won't want to skip around in the book too much. Activities start from basic counting and progress to more complex concepts. You may choose to let older students skip to later pages, unless they prefer to review what will be "easy" pages at first. Also, the more complex pages can be saved until the young child is able to grasp the concepts without being frustrated. Consider each child's individual skills and developmental levels of understanding as you select the concepts to teach to your class.

## Max Describes Maths

- Max Mathematics shows us some numerals. Numerals tell **how many**.
- Numerals tell us the **number of things** we want to count.
- **One-to-one correspondence** means one thing matches one other thing.
- **Ordering Numerals (One Less and One More)** One less means one fewer. One more means one greater. A numeral which is 1 less comes just in front of another numeral when counting. A numeral which is 1 more follows another number.

# Special Teaching Tips *(cont.)*

- **Ordering (Before, After, Between)**

Numerals which are **before** a certain numeral come **in front of** that numeral when counting. Numerals which are **after** a certain numeral **follow and come later** than that numeral when counting.

- **Recognizing Symbols (<, >, =)**

Instead of writing *more than*, *less than*, and *equals*, symbols are used.

< is the symbol for **less than**.

> is the symbol for **greater than or more than**.

= is the symbol for **equal to or the same as**.

- **Addition** means putting some things together to make a bigger number of things. In addition problems, the **answer** is called the **sum** or **total**.

- **Subtraction** means taking away some things to leave a smaller number. The **answer** in a subtraction problem is called the **difference**.

- **Making Sets**

A set is a **group** of things with **something in common**. The thing that the members of a set can have in common can be the way they look (shape, color, size) or how the things are used (tools, food, clothing).

- **Members of Sets**

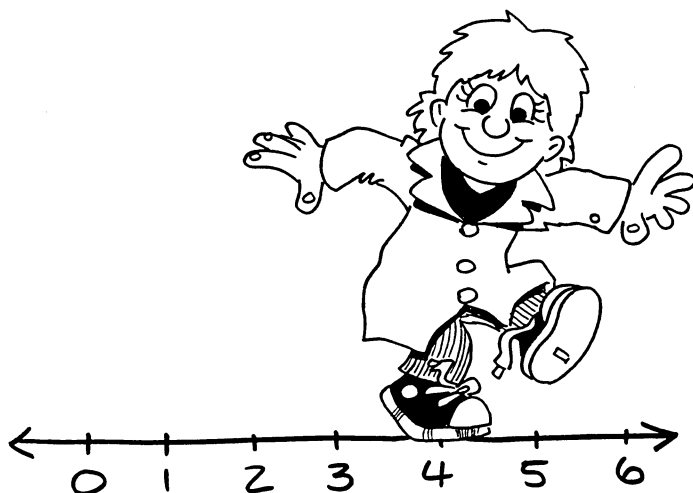
**Members or elements of a set** are things that **belong to the set**. Something belongs to a set if it has something in common with the other members of the set.

Sets might be objects that are the same: blue things, small things, square things, bumpy things.

Or, sets might be objects that are used for the same thing or found in the same place: things that cut, things found in a kitchen, things found at school, things that color.

- **Equivalent Sets**

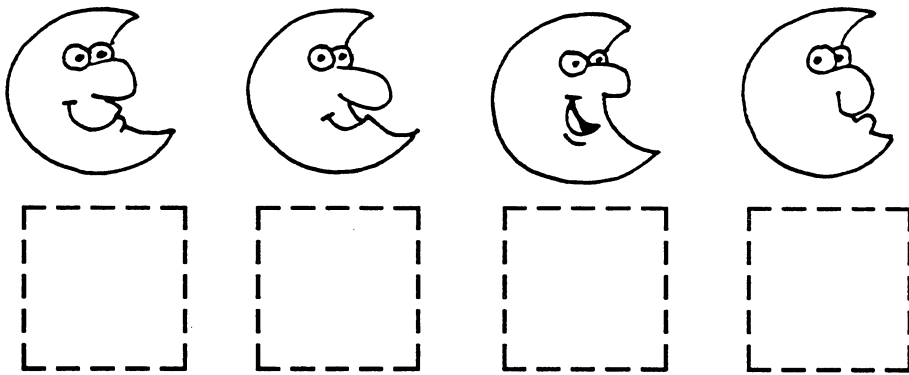
**Equivalent sets** have the same number of members or elements in both sets. There is a **one-to-one correspondence** between the members in both sets.



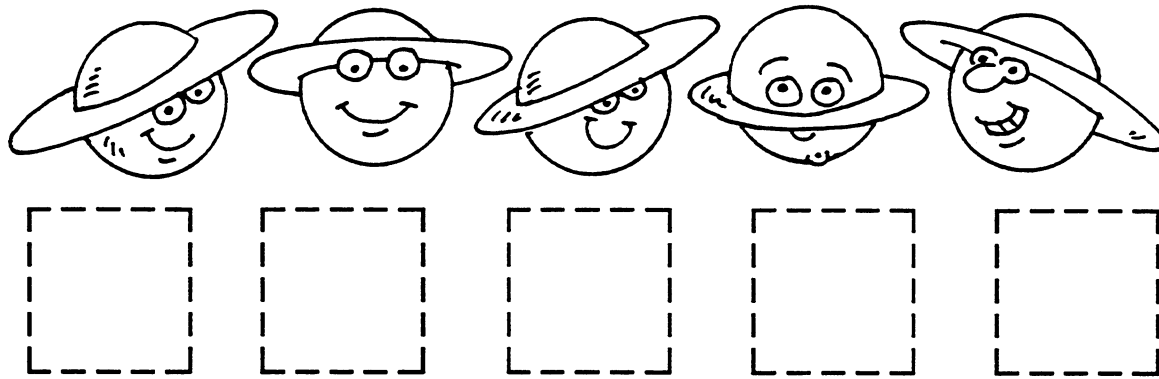
Name \_\_\_\_\_

# Counting Planets and Moons

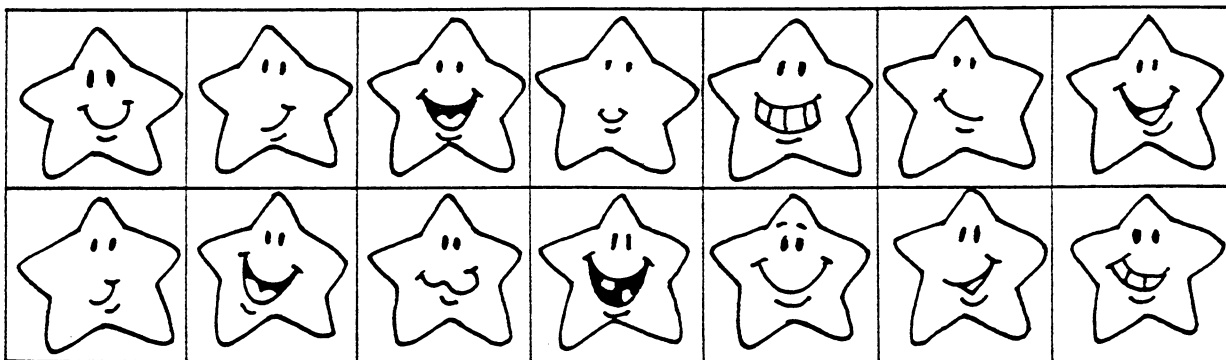
Color and cut out the stars at the bottom of the page.  
Count the moons. Paste a star under each moon.  
Count the planets. Paste a star under each planet.



There are \_\_\_\_\_ moons.



There are \_\_\_\_\_ planets.



Name \_\_\_\_\_

# The Big Race

The bunny family and Mr. Turtle are having a race. What do you think Mr. Turtle is thinking about? Who do you think will win? Trace the numerals and write the word 'zero'. Read them aloud. Then, count and color the bunnies in the bubble. (Zero (0) means there are no bunnies in the bubble.)

