This textbook is based on the SMSG kindergarten and first grade materials as a framework. This special edition is designed to meet the needs of disadvantaged children. Chapters in the book include: (1) Sets and Numbers; (2) Numerals and the Number Line; (3) Sets of Ten; and (4) Introduction to Addition and Subtraction. The student text contains a variety of activities and exercises with limited directions. Detailed instructions for the teacher and background materials are included in the Teacher's Commentary. (RH)
MATHEMATICS FOR THE ELEMENTARY SCHOOL

BOOK 1 (Part 1)

Student Text

SPECIAL EDITION (Revised)

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Chapter 1. SETS AND NUMBERS
1 - 1. Set and member .......................... 1 - 6
1 - 2. The Empty Set .......................... 7 - 9
1 - 3. Pairing and Equivalence ................. 10 - 21
1 - 4. Comparison of Sets (More Than) ....... 22 - 33
1 - 5. Comparison of Sets (Fewer Than) ..... 34 - 39
1 - 6. Review .................................. 40 - 41
1 - 7. Numbers and Equivalence .............. 42 - 45
1 - 8. Number Perception, Without Counting ..
1 - 9. Comparison of Numbers .................. 46 - 47

Chapter 2. NUMERALS AND THE NUMBER LINE
2 - 1. Arranging Sets in Succession ............ 48 - 72
2 - 2. The Numerals 0 through 9 .............. 73 - 107
2 - 3. The Number Line ......................... 108 - 111

Chapter 3. SETS OF TEN
3 - 1. Sets of Ten .................................. 112 - 113
3 - 2. Naming Multiples of Ten .................
3 - 3. Application: Money ...................... 114 - 115
3 - 4. Problem Solving with Sets of Ten .......

Chapter 4. INTRODUCTION TO ADDITION AND SUBTRACTION
4 - 1. Joining ......................................
4 - 2. Joining Sets and Counting ............... 116 - 125
4 - 3. Joining Sets and Adding Numbers ..... 116 - 125
4 - 4. Subsets .................................... 126 - 127
4 - 5. Removing Sets and the Remaining Set ...
4 - 6. Removing Sets and Subtracting Numbers .. 128 - 132
The empty set
The empty set

- Spoon
- Fork
- Knife

- Book
- Paper
- Shadow

- Car
- Tire
Are the sets equivalent?

Yes  No

Yes  No
Are the sets equivalent?

Yes  No

Yes  No

Yes  No
Are the sets equivalent?

Yes

No

Yes

No
Are the sets equivalent?

Top set: 1 chicken, 1 rooster, 1 pig

Bottom set: 1 cat, 1 elephant, 1 dog

Yes  No

Top set: 5 bottles

Bottom set: 6 bottles

Yes  No
Are the sets equivalent?

Yes  No

Yes  No

1¢  5¢  10¢  25¢
Are the sets equivalent?

Yes  No

Yes  No

Yes  No

16  20
Are the sets equivalent?

Yes  No

Yes  No

Yes  No
Show equivalent sets.
Show equivalent sets
Show equivalent sets.
Which set has more members? Mark it.
Which set has more members? Mark it.
Which set has more members? Mark it.
Which set has more members? Mark it.
Which set has more members? Mark it

___

___

___

___

___

___

___

___
Show an equivalent set.
Show a set with more members
Show a set with more members
Show an equivalent set.

Top row:
- Two people discussing something.
- An empty space.

Middle row:
- A fish.
- A small fish.
- A large turtle.
- A small turtle.

Bottom row:
- Two cats.
- A cat.
- A dog.
- A bird.
- A bird.
- A turkey.
Which set has fewer members? Mark it.
Which set has fewer members? Mark it.
Which set has fewer members? Mark it.
Which set has fewer members? Mark it.
Show a set with fewer members
Show a set with fewer members
Compare these sets.
Compare these sets
Same number of members

1. Wagon and kite
2. Balloon and ball
3. Jet plane and tree
4. Kite and animal
5. Chair
Same number of members

- Four people
- One house
- One spoon, one fork
- One drum, one star
- Five pennies
- One truck, one car, one wagon
Same number of members

1. Chicken, Pig
2. Fruits: Orange, Grapes, Pear, Lemon
3. Kite, Star, Drum, Soldier
4. Chair, Penguin
5. Milk Bottle, Glass, Coffee Cup
6. Unknown
Same number of members

- Coins
- Car
- Crayon

- Truck
- Carriage
- Tricycle
- Rooster
- Pig

- Cat
- Lion

- Rooster
- Umbrella
- Spaceship
Greater than - less than
Greater than - less than
Sets with one more member

1. Three bunnies and one more object.
2. A car.
3. A baseball bat, ice cream cone, and a ball.
Sets with one more member
Sets with one more member
Sets with one less member
Sets with one less member

- Set of 2 dots
- Set of 1 dot
Sets with one less member
Sets with one less member
Order of sets
Which sets have six members?
Which sets have six members?
Which sets have seven members?
Which sets have seven members?
Which sets have eight members?
Which sets have eight members?

- Monkey
- Giraffe
- Cat
- Rooster

- Spoon
- Drum
- Whistle
- Bird
- Cat
- Fork

- Star
Which sets have nine members?
Which sets have nine members?
Which sets have ten members?
Which sets have ten members?
Sets with one more member

Diagram of sets with one more member.
Sets with one more member
Sets with one less member
Sets with one less member
Order of Sets
Which sets go with 0?
Which sets go with 1?
Which sets go with 2?
Pair each set with its number name

0

1

2
Which sets go with 3?
Pair each set with its number name

1. Orange, spoon
2. Banana, fork
3. Apple, cat
Which sets go with 4?
Which sets go with which numbers?

1. Umbrella, house, girl
2. Ice cream, ball, apple
3. Truck, rabbit
4. Bird, cat, drum
Which sets go with 5?

- 5 drums
- 5 bottles
- 5 mice
- 5 clocks
- 2 trees
Pair each set with its number name

2

3

4

5
<p>| | | |</p>
<table>
<thead>
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<tr>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Ring the correct numeral</strong></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><img src="image" alt="Bicycle" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Ice Cream" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Person" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Car" /></td>
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<th>3</th>
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<tr>
<td><img src="image" alt="Umbrella" /></td>
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</tr>
<tr>
<td><img src="image" alt="Umbrella" /></td>
<td></td>
<td></td>
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</table>

<table>
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<tr>
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<th>1</th>
<th>4</th>
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<tbody>
<tr>
<td><img src="image" alt="Bird" /></td>
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</table>
Ring the correct numeral:

3
4
5

0
1
3

2
0
1
0
Which numbers are greater?

<table>
<thead>
<tr>
<th>3</th>
<th>x</th>
<th>5</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
<td>5</td>
<td>1</td>
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<tr>
<td>1</td>
<td>2</td>
<td>4</td>
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<tr>
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<td>0</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
Which numbers are greater?

<table>
<thead>
<tr>
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<th>3</th>
<th>0</th>
<th>x</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>3</td>
<td>1</td>
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<td>4</td>
<td>0</td>
<td>5</td>
<td>2</td>
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</tr>
</tbody>
</table>
Which numbers are less?

3 2 5 4

4 0 5 1

1 2 4 0

5 4 0 1

0 3 5 2

2 0 4 1
Which numbers are less?

<table>
<thead>
<tr>
<th>2</th>
<th>1</th>
<th>4</th>
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</thead>
<tbody>
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<td>5</td>
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<tr>
<td>3</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
How many in each set?

1. 3
2. 2
3. 4
4. 3
How many in each set?
Which sets go with 6?
Which sets go with which numbers?
Which sets go with 7?

- Set 1: 7 cats
- Set 2: 7 fruits
- Set 3: 9 moons
- Set 4: 9 apples
Which sets go with which numbers?
Which sets go with 8?
Which sets go with which numbers?

4

5

6

7

8
Which sets go with 9?
Which sets go with which numbers?

1. Set with a clock, a boot, a cube, and an ice cream.
2. Set with a bat, a chair, a flag, and a cart.
3. Set with a kite, a star, a pizza, an apple, a fork, and a cup.
4. Set with a cup, a rabbit, a drum, a tree, a hat, a milk bottle, and a small tree.

Numbers:
5.
6.
7.
8.
9.
Ring the correct numeral

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<td>7</td>
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<td>6</td>
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<tr>
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<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Ring the correct numeral

7 8

7 8

6 8
**Ring the correct numeral**

<p>| | | | |</p>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
How many members in each set?

5
6
7
8
9

4
5
6
7
8
9
How many members in each set?

- Bottle, glass, fork, umbrella, wagon
- Ice cream cones
- Coffee cups and saucers
- Football, kite, bicycle, pine tree, star
- Elephant, giraffe, monkey, lion, cat
- Mittens, plate, hat, coin, apple, coffee cup
How many members in each set?
<table>
<thead>
<tr>
<th>4</th>
<th>1</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
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<td>0</td>
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<td>9</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>0</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>
Which number is less?

8893

3351

4799

6046

107111
Where do the numerals belong?

0 1

9 8 5 0 2 4 3 7 1 6
Name the points.
Use the number line

0 1 2 3 4 5 6 7 8 9

2 5 7 3 0 1

7 3 9 0 8

4 8 4 1 9

4 6 2 7 5
Use the number line

0 1 2 3 4 5 6 7 8 9

7 4 8 2 5

4 3 6 0 9

1 9 6 2 0

9 3 7 6 8
How many tens?

---

_______ Tens

---

_______ Tens

---

_______ Tens

112 118
How many tens?

1.  

2.  

3.  

Tens

Tens

Tens

113 119
Dimes and cents

One cent
One dime
Ten cents

Mark enough pennies to buy each toy.
Dimes and cents
Mark enough pennies to buy each toy
How many?

1. Three trees
2. Two wagons
3. Two drums
How many?
How many? Write the equation

\[ \phantom{\text{equation}} \]

\[ \phantom{\text{equation}} \]

\[ \phantom{\text{equation}} \]

\[ \phantom{\text{equation}} \]
How many? Write the equation:

\[
\begin{align*}
\phantom{= &} + \\
\phantom{= &} + \\
\phantom{= &} = \\
\phantom{= &} + \\
\phantom{= &} = \\
\end{align*}
\]

125
119
Equations

\[ 4 + 1 = \square \quad 2 + 3 = \square \]

\[ 3 + 0 = \square \quad 0 + 6 = \square \]

\[ 2 + 2 = \square \quad 1 + 3 = \square \]

\[ 1 + 5 = \square \quad 2 + 4 = \square \]
Equations

0 + 1 = □ 5 + 1 = □

1 + 1 = □ 6 + 1 = □

2 + 1 = □ 7 + 1 = □

3 + 1 = □ 8 + 1 = □

4 + 1 = □
Equations

\[2 + 0 = \phantom{0}\phantom{0\]
Equations

$3 + 0 = \square$

$3 + 1 = \square$

$3 + 2 = \square$

$3 + 3 = \square$

$3 + 4 = \square$

$3 + 5 = \square$

$3 + 6 = \square$
Equations

\begin{align*}
2 + 1 &= \square \\
3 + 1 &= \square \\
2 + 3 &= \square \\
4 + 1 &= \square \\
2 + 4 &= \square \\
1 + 2 &= \square \\
1 + 3 &= \square \\
3 + 2 &= \square \\
1 + 4 &= \square \\
4 + 2 &= \square \\
\end{align*}
Equations

$$4 + 3 = \square$$

$$2 + 5 = \square$$

$$5 + 0 = \square$$

$$5 + 1 = \square$$

$$2 + 6 = \square$$
\[
\begin{align*}
3 + 4 &= \square \\
5 + 2 &= \square \\
0 + 5 &= \square \\
1 + 5 &= \square \\
6 + 2 &= \square 
\end{align*}
\]
A set and some of its subsets

A. Cat, chicken

B. Toy train, toy soldier, toy car

C. Tricycle, toy train

D. Cat
A set and some of its subsets

A. apple, kite, cup
B. tree, house
C. wagon
D. apple, tree, cup
E. gun
F. umbrella, apple
Remove a subset

- Ball
- Balloon
- Bottle
- Stars

- Birds
- House
- Trees

- Coin
- Clock
- Telephone
- Animals

128 134
<table>
<thead>
<tr>
<th>Remove a subset</th>
<th>Equation</th>
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<td><img src="image2.png" alt="Image" /></td>
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<td><img src="image4.png" alt="Image" /></td>
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<tr>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
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</tbody>
</table>
Write the equations

\[ 5 - 1 = \Box \]
\[ 3 - 2 = \Box \]
\[ 1 - 1 = \Box \]
\[ 4 - 2 = \Box \]
\[ 3 - 1 = \Box \]
\[ 2 - 1 = \Box \]
\[ 4 - 3 = \Box \]
\[ 5 - 2 = \Box \]
\[ 6 - 2 = \Box \]
\[ 7 - 5 = \Box \]