

The CHARLOTTE MASON
ELEMENTARY ARITHMETIC

S E R I E S

SAMPLE



Richele R. Baburina

BOOK 1

The Charlotte Mason
Elementary Arithmetic Series

BOOK 1

Short, engaging, interactive lessons
that guide your young student to a
solid understanding of addition and
subtraction through 100.

The Charlotte Mason
Elementary Arithmetic Series

Book 1

by Richele Baburina

The Charlotte Mason Elementary Arithmetic Series, Book 1
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“The Principality of *Mathematics* is a mountainous land, but the air is very fine and health-giving, though some people find it too rare for their breathing. It differs from most mountainous countries in this, that you cannot lose your way, and that every step taken is on firm ground. People who seek their work or play in this principality find themselves braced by effort and satisfied with truth”

(*Ourselves*, Book 1, p. 38).

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Introduction

So it begins, the invigorating journey of formal arithmetic lessons with your child. In her volume, *Home Education*, Charlotte Mason tells us “there is no subject in which the teacher has a more delightful consciousness of drawing out from day to day new power in the child” (p. 261). We hope you enjoy the same as you guide your child in discovery through these lessons.

In Charlotte Mason’s programs early elementary arithmetic lessons were called *Numbers* or *Sums*, referring to a child’s investigation of each number and the working out of small problems involving its use. Charlotte also called mathematics an *instrument for living teaching*, so you will notice a number of methods distinct to her principles and philosophy of education throughout. Some to keep in mind:

Atmosphere. Lessons are short, 20 minutes in all. The teaching is carefully graduated with your child answering small word problems within his understanding. Lessons are mainly oral, and children work out the problems with the use of concrete objects, or what we today refer to as *manipulatives*. These manipulatives are common, everyday objects, and a good variety of them; however, the objects are merely a means to an end. No specially-developed manipulatives or expensive equipment is introduced, and the objects are put away before boredom sets in.

Discipline. The methods employed make arithmetic a means of developing good habits in your child. Charlotte tells us that giving “short sums, in words rather than in figures,” serves to excite “the enthusiasm which produces concentrated attention and rapid work” (*Home Education*, p. 261). Both the variety and type of questions and the manipulatives used ensure that your child does not confuse the general with the specific. As you will see, even the initial writing of numbers resembles Charlotte’s early handwriting lessons. Neatness and accuracy are desired with your child getting his written symbols for numbers as straight and precise as he is capable.

Life. Lessons in *Numbers* are hallmarked in a Charlotte Mason education by the unfolding of ideas in your child’s mind. Storybooks are not used to teach concepts in arithmetic in a Charlotte Mason education, as she considered mathematics a logical and melodious speech in itself,

fully able to meet the requirements of the mind. Simple, everyday objects serve as tools to the presentation or investigation of ideas, rather than complex apparatus that either require too much teaching or replace the importance of the idea to be represented. Straightforward teaching—devoid of lengthy and excessive explanations—allows your child to make discoveries on his own, resulting in an awakening of a sense of awe in God’s fixed laws of the universe.

Arithmetic Concepts in Book 1

- Counting 1 through 100
- Investigation and analysis of 1 through 100
- Numerals 0 through 9
- Symbols +, −, and =
- Place value through 100
- Numeration and notation through 100
- Money through \$1 (penny, nickel, dime, quarter, dollar)
- Addition through double digits
- Subtraction through double digits
- Skip counting
- Review and oral work
- Mental math

Overview of Lessons

You will see a distinct pattern in these introductory lessons as your child discovers *the symbol for the idea* of each number followed by further exploration through *simple sums*. Counting helps ensure your child has an idea of where a number occurs in relationship to other numbers and will also help lay groundwork for the idea of multiplication as repeated addition when multiplication is formally introduced the following year. A *review* will help solidify ground already covered. On those days when your child is most bright and eager, there are a few additional problems in *pure number*.

It is important to note that each number is not meant to be a one-day lesson taken as a tour du force but may stretch out over two to three days or more of lessons. Lessons in Numbers should also not exceed 20 minutes no matter how eagerly your child is working—should you notice signs of mental fatigue do not be afraid to end the Numbers lesson a bit early. Since this is a lesson of concentrated attention and effort, be sure to precede and follow with appropriate lessons in the daily schedule to ensure an adequate change of pace for your child's mind.

The Symbol for the Idea

There is a striking similarity between Charlotte's initial lessons in Numbers and her first reading lessons as each number represents *a symbol of fact or idea full of interest*. Charlotte says the written symbol will be pleasant in your child's eyes because it is associated with an existing idea in her mind.

Writing is used sparingly; but when it is, just as in Charlotte's early handwriting lessons, neatness and accuracy are desired with your child getting her written symbols as neat and precise as she is able. Since writing is still labor-intensive for a child at this age, we don't want to overshadow the true significance or idea of the Numbers lesson. Just as we transition from oral to written narrations in a Charlotte Mason education, so in these lessons we will introduce writing gradually. Writing an equation in one's math notebook should be considered a real treat, used either during the final lesson on a particular number or when your child is exceptionally alert and enthusiastic.

Simple Sums

You will also give your child simple sums involving each number as it is learned. (The term *sum* in Charlotte Mason's day referred to any mathematical problem. It will be used in that context in these printed lessons to the teacher. The modern term *equation* will be used when speaking to the student.) These small problems are given orally and worked out first with readily-found objects before advancing to imaginary objects and then to pure number. The objects may be beads, pennies, small counters—anything included in the corresponding Book 1 Kit or objects found in your own home—just be sure to use a variety of objects throughout the week, so no ironclad connection is formed or the general becomes confused with the specific. The specific concrete object suggested for each lesson is listed in the text for your convenience.

Once your child has worked through some simple sums using beans, pennies, beads, etc., and named as such, then we will give additional problems using the same objects but calling them by another name, such as cars or kittens. When your child is able to work these with ease, we put away all buttons and beads and progress to small sums using imaginary objects. Remember to watch the clock and your child. There is no need to rush, and the step of working without the aid of the concrete may happily be reserved for the next day's lesson. Please be content to go slowly with your child until she feels at home with each new idea or number presented.

Lessons are meant to be lively and questions should be engaging, so in addition to the questions provided, use your own ingenuity to either change the wording or devise little sums that are specific to your child. Use siblings, relatives, friends, and pet names as well as anything of particular interest to her. Allow your child to come up with her own questions, as well, and if you have more than one student, let them pose questions to each other.

Help your child get into the habit of giving complete sentences for her answers. For example, require a full answer of "Three beans take away one bean leaves two beans" or "Three take away one is two" rather than simply stating "two beans" or "two." This habit will aid immensely in the retaining of math facts as your child progresses. If your child states only the answer, simply ask the question "Why?" to encourage a fuller explanation.

Review

Part of the lesson is used to reinforce numbers already explored while

training habits of accuracy, rapid work, and steadfast thinking. This section can be done at the end of a lesson or, if the lesson has already lasted for 20 minutes, saved to begin the next lesson time.

Pure Number

Occasionally, simple work with pure or abstract numbers can be attempted on days when your child is exceptionally alert and enthusiastic in her work. Coins and counters and even imaginary cars and animals are put away and little problems with pure numbers are given. Once signs are learned, your child may write one of these problems in her math notebook after the answer has been determined orally. Again, at this stage these sums are not indulged in too often. They may be frequently skipped.

When to Advance

On the one hand, you will want to go slowly enough to build understanding and comfort in Numbers while, on the other hand, you don't want to go so slowly that your child becomes bored. You should find that you are able to tell when your child is ready to move on and can trust your own instinct in this area. If, at any point, you determine you have advanced too quickly, simply take a step or two back and bring concrete objects out again until your child is at ease working with that number or concept.

The sums given in each section are meant to be a tool—not the master—so use more or fewer of them according to your child's needs. Rephrasing the sums using your child's name, as well as those of family members, friends, and specific areas of interest or objects related to home-life, will increase your child's attention as well as add to the number of questions at your disposal.

Pacing

The exploration and analysis of numbers 1 through 100 generally took place in a child's first year of formal education. The charts on the next page may be taken as a planning guide for your convenience but, while the work should remain consistent, it is most important that it should be adjusted to your child's pace.

Term 1												
<i>Suggested Weeks</i>	1	2	3	4	5	6	7	8	9	10	11	12
One through Nine	■	■	■	■								
Introduction of 10					■	■						
Eleven through Nineteen							■	■	■	■	■	
Term Exam												■

Term 2												
<i>Suggested Weeks</i>	13	14	15	16	17	18	19	20	21	22	23	24
Twenty through Twenty-Nine	■	■	■	■	■							
Thirty through Ninety-Nine begun						■	■	■	■	■	■	
Term Exam												■

Term 3												
<i>Suggested Weeks</i>	25	26	27	28	29	30	31	32	33	34	35	36
Thirty through Ninety-Nine continued	■	■	■	■	■	■	■	■	■	■		
One Hundred											■	
Term Exam												■

Exams

Three end-of-term exams are provided in the back of this book. Those oral exams are designed for you to customize to reflect where your child is in the lessons. See page 265 for details.

Supplies Needed

- Number cards with 1–9 printed on them, three of each
- Personal chalkboard, dry-erase board, or the like together with its appropriate writing instrument. For brevity, it will be referred to only as *the slate* in the lessons.
- Variety of everyday objects: beans, pennies, simple counters, candy-coated chocolates, beads, buttons, popcorn kernels, etc.
- Objects that can be either bundled or threaded on string or chenille stems/pipe cleaners; for example, craft sticks, matchsticks, golf pencils, beads, buttons, etc.
- Coin purse with 50 pennies, 20 dimes, and 20 nickels (See page 264 for a simple no-sew drawstring coin bag craft that you and your child can do together.)
- One dollar bill
- Gridded math notebook ($3/4$ " or $1/2$ " squares recommended)
- Pencil
- Timer to be set for 20-minute lessons or a clock to keep an eye on the time

The gridded math notebook is available from Simply Charlotte Mason. A Book 1 Kit is also available, containing preprinted number cards, a variety of objects that can easily be bundled, the supplies to bundle them, a slate, and the materials for making the coin bag.

Optional: The parent reference book, *Mathematics: An Instrument for Living Teaching*, explains Charlotte Mason's unique approach to math more fully. The video series, *Charlotte Mason's Living Math: A Guided Journey*, demonstrates the methods used in these lessons. Both are available from Simply Charlotte Mason.

One through Nine

Each child will differ in the time it takes to fully explore the numbers one through nine. As an adult, it may be hard to remember just how abstract these symbols are, so rest comfortably in Charlotte Mason's methods and principles. Along with creating a healthy atmosphere, you will be nurturing good habits while your child is learning to read, write, count, and compute with these numbers; so don't be surprised if it takes a number of weeks to complete this section of the book. The suggested schedule on page 14 recommends at least four weeks. The important thing is to go at your child's pace.

As our numbers increase, we are able to include the review of previously learned numbers during the lesson. This section, called *Review*, may be used either at the end of a lesson or at the beginning of the next day's lesson—determined by your stopping point for each day.



You may wish to view “Introduction to Living Math” and “Numbers” in the video series *Charlotte Mason's Living Math: A Guided Journey* for more detail and demonstrations.

One

The Symbol for the Idea (*instructions to the parent*)

1. Ask your child to point out *one* of something in the room, such as one pencil or one door. Have your child continue to point out everything that exists singly in the room; e.g., one nose, one window, one brother.
2. Write the symbol *1* on the slate for your child to see. Let your child know that now whenever she sees the stroke *1* she knows that it stands for one of something.
3. Spread the number cards out on the table before your child and have your child pick out the *1*s from this group of figures.
4. Now your child is ready to learn to write the number *1* on her slate. Show how it is written and then have your child copy it as neatly as she is able.
5. Introduce to your child the special gridded notebook for arithmetic. Explain that each number will occupy a square. Have her write the symbol *1* in the top row, third square from the left, on the first page. You may show her first on a gridded slate or gridded sheet of loose paper if need be. (Once is enough in the notebook; if your child is eager to practice writing numbers a few more times, have her do so on the slate.)

Tip: The first page in the math notebook will be used for writing 1–10 as they are learned. Each consecutive number will be written underneath the previous.

Tip: For your records, you may wish to write the date at the top corner of this first page in your student's math notebook, leaving room to put a date range, e.g., September 1, 20xx—June 15, 20xx.

Two

The Symbol for the Idea (*instructions to the parent*)

1. Have your child point out two of some things in the room, that is, those things that exist in *twos* or pairs, e.g., two eyes, two books, two shoes. Let her continue to point out as many as she wishes.
2. Next, draw a 2 on the slate so that she learns the symbol for the idea of *two*.
3. Spread the number cards out on the table and have your child pick out all the 2s from the group of figures.
4. Now it is your child's turn to learn to write the number 2 on her slate.
5. Finally, have your child write the number 2 in her math notebook underneath the number 1 from the previous lesson.

Simple Sums (*with manipulatives*)

Objects used: beans

Tip: Though the term math manipulative was not utilized in Charlotte Mason's time, the use of concrete objects as aids in conveying ideas is significant in her philosophy of education.

1. 1 bean and 1 bean make how many beans?

Tip: Remember to require a fully worded answer. You may encourage this simply by asking "Why?"

2. If I want 2 beans and I only have 1 bean, how many more beans do I need?
3. How many 1s are there in 2 beans?

4. 2 beans take away 1 bean leaves how many?
5. 1 bean and 1 bean are?
6. And if these were raisins: 1 raisin and 1 raisin make how many raisins?
7. If you have 2 raisins and ate 1 raisin, how many would remain?

Answers

1. 1 bean and 1 bean make 2 beans.
2. 1 bean, because 1 bean and 1 bean make 2 beans.
3. 1 bean and 1 bean—there are two 1s in 2.
4. 1 bean, because 1 bean and 1 bean make 2 beans or 2 beans take away 1 bean leaves 1 bean.
5. 2 beans, because 1 bean and 1 bean are 2 beans.
6. 2 raisins, because 1 raisin and 1 raisin make 2 raisins.
7. 1 raisin, because 2 raisins take away 1 raisin leaves 1 raisin.

Simple Sums (*without manipulatives*)

Tip: You can change the wording in the problems to reflect your child's interests.

1. If you have 1 bean to plant and I give you another bean, how many beans have you all together?
2. Will had 1 apple but wanted 2 apples. How many more does Will need to have 2?
3. Julie had 1 kitten and then she received another kitten. How many kittens had she?
4. Margaret had 1 daisy and then she picked another 1. How many daisies had she all together?
5. Margaret gave 1 of her two daisies to her mother. How many daisies has she left?

Answers

1. 2 beans, because 1 bean and 1 bean make 2 beans.

Tip: Be sure to require fully worded answers.

2. 1 apple.
3. 2 kittens.
4. 2 daisies.
5. 1 daisy.

Pure Number *(optional)*

Tip: Remember, it is not every day that you will attempt work in Pure Number with your child, only those days when she is exceptionally eager. Exercises on Pure Number are placed here for your convenience but may often be skipped.

1. How many are 1 and 1?
2. 1 taken from 2 leaves how many?
3. 2 take away 1 leaves how many?

Answers

1. 1 and 1 are 2.
2. 1 taken from 2 leaves 1.
3. 2 take away 1 leaves 1.

Three

Tip: The number three is taken in much the same way, only this time your child will also count forward and backward using concrete objects and will also review the number 2 with simple sums.

The Symbol for the Idea *(instructions to the parent)*

1. Have your child point out *three* of something in the room, e.g., three books, three pencils, three spoons, three children, etc.

2. Write 3 for your child on the slate so that she may learn the symbol for the idea of *three*.
3. Spread the cards out so that she may pick out the 3s from a group of figures.
4. Now your child can learn to write the number 3 on her slate.
5. Have your child write 3 in her gridded math notebook under the 2.

Simple Sums (*with manipulatives*)

Objects used: craft sticks

1. If you have 1 stick in your left hand and 2 sticks in your right hand, how many sticks have you all together?
2. 1 stick and 1 stick make how many sticks?
3. Now, if you add 1 more stick to your 2 sticks, how many have you?
4. If you want 3 sticks but you only have 1 stick, how many more do you need?
5. And if you take away 2 sticks from your 3 sticks, how many have you left?
6. 2 sticks and 1 stick make?
7. There are 2 ladybugs on a flower and 1 ladybug on a leaf. How many ladybugs all together?
8. There is 1 frog on a stump and she is joined by 2 more frogs. How many frogs in all?
9. Abigail wants 3 candies but only has 2. How many more does she need?

10. There is 1 boy on the playground when 2 boys join him. How many boys are there now?

Answers

1. 3 sticks, because 1 stick and 2 sticks make 3 sticks.

Tip: Be sure to require fully worded answers.

2. 2 sticks.
3. 3 sticks.
4. 2 sticks.
5. 1 stick.
6. 3 sticks.
7. 3 ladybugs.
8. 3 frogs.
9. 1 candy.
10. 3 boys.

Counting

1. Let's count the sticks you have in front of you.
2. Now count them backward, starting with 3.

Tip: If necessary, you may point to the three sticks first and when your child says "three," cover up the third one with your hand so she says "two," and then cover the second and third stick so your child says "one."

3. Let's count the sticks up and back again.

Simple Sums (*without manipulatives*)

1. If you have 2 beads on the table and 1 in your hand, how many beads have you all together?
2. Kaley needs 3 pencils. She has 1 pencil. How many more does she need?

3. Mother already has 2 pancakes on a plate and then makes 1 more. How many pancakes has she now?
4. Joshua has 3 cookies and he gives 1 cookie to his sister. How many cookies remain?
5. Sarah caught 1 fish and Stephanie caught 2. How many fish have they all together?

Answers

1. 3 beads, because 2 beads and 1 bead make 3 beads.

Tip: Be sure to require fully worded answers.

2. 2 pencils.
3. 3 pancakes.
4. 2 cookies.
5. 3 fish.

Review

Tip: You may have manipulatives out on the table if needed.

1. You have 1 penny and you find another penny on the ground. Now how many pennies have you?
2. You have 2 jelly beans and you eat 1 jelly bean. How many jelly beans have you?
3. If you have 1 pebble in your left pocket and 2 pebbles in your right pocket, how many pebbles have you in both?
4. Jordan has 2 books and Rachel has 1 book. How many books have they all together?
5. 2 ducks are swimming on a pond and 1 duck joins them. How many ducks on the pond?

Answers

1. 2 pennies, because 1 penny and 1 penny make 2 pennies.

Tip: Be sure to require fully worded answers.

2. 1 jelly bean.
3. 3 pebbles.
4. 3 books.
5. 3 ducks.

Pure Number *(optional)*

Tip: Remember, it is not every day that you will attempt work in Pure Number with your child, only those days when she is exceptionally eager. Exercises on Pure Number are placed here for your convenience and may be skipped.

1. 1 and 1 make?
2. 2 take away 1 leaves how many?
3. How much is left if you take 1 from 3?
4. 2 and 1 make?

Answers

1. 1 and 1 make 2.
2. 2 take away 1 leaves 1.
3. 1 taken from 3 leaves 2.
4. 2 and 1 make 3.

Four

The Symbol for the Idea *(instructions to the parent)*

1. Have your child point out *four* of something in the room.

2. Next, draw a 4 on the slate so that she learns the symbol for the idea of *four*.
3. Spread the number cards out on the table and have your child pick out the 4s from the group of figures.
4. Now it is your child's turn to learn to write the number 4 on her slate.
5. Finally, have her write the number 4 in her math notebook underneath the number 3.

Simple Sums (*with manipulatives*)

Objects used: buttons

Tip: As the numbers grow larger so do the examples we can give your child. Besides simple addition and subtraction, your child can also answer simple factors using manipulatives, as you will see in this lesson.

1. 1 button and 3 buttons make how many buttons?

Tip: Remember, your child should give the answer in a complete sentence each time as it will be an aid in learning math facts as she progresses. Simply asking "Why?" is usually enough to encourage a full sentence.

2. If you have 2 buttons and then get another 2 buttons, how many buttons have you?
3. You want 4 buttons but have only 1. How many more buttons do you need?
4. If you have 3 buttons but want 4, how many more do you need?
5. Let's pretend these are cookies. If you have 4 cookies and eat 1 cookie, how many have you?
6. 2 cookies and 2 cookies make how many?

7. If you had 4 cookies and you gave 2 to your brother, how many have you left?
8. If you had 4 cookies and they all get eaten, how many have you?

Tip: Here you are introducing the idea of 0. If your child is familiar with this idea, she will probably answer “Zero.” If she answers “None” or “No cookies” then you may respond with something such as, “That’s right. 4 take away 4 leaves no cookies, or ‘zero’ cookies.” We will introduce the idea of zero as “no objects” a few more times before we introduce the idea of zero as a placeholder in the lesson on the number Ten.

9. If I have 4 buttons and give them all to you, how many buttons have I left?

Answers

1. 4 buttons, because 1 button and 3 buttons make 4 buttons.

Tip: Be sure to require fully worded answers.

2. 4 buttons.
3. 3 buttons.
4. 1 button.
5. 3 cookies.
6. 4 cookies.
7. 2 cookies.
8. 0 cookies.
9. 0 buttons.

Counting

1. Let’s put your buttons in a line and count them.
2. Now put your 4 buttons in groups of 2. How many groups of 2 are in 4?
3. Let’s count them by 2.

4. Beginning with 4, can you count your buttons back down to 1?

Simple Sums (*without manipulatives*)

1. 3 buttons and 1 button make how many buttons?
2. If you have 2 buttons but want 4 buttons, how many more do you need?
3. Simone needs 4 buttons but only has 1 button. How many more buttons does she need?
4. Jack traded his cow for 4 beans. He planted 2 beans. How many has he left?
5. There is 1 child on the playground. If 3 more children join him, how many children are now on the playground?

Answers

1. 4 buttons, because 3 buttons and 1 button make 4 buttons.

Tip: Be sure to require fully worded answers.

2. 2 buttons.
3. 3 buttons.
4. 2 beans.
5. 4 children.

Review

1. Cory needs 3 pennies but only has 1 penny. How many more does he need?
2. You have 2 pennies and you find 2 more pennies. How many have you in all?
3. Lucia has two pennies in her left hand and 1 penny in her right hand.

How many has she all together?

4. If I have 3 pennies and throw 1 in a fountain, how many have I remaining?
5. You have 1 peach and pick 2 more. How many peaches have you now?

Answers

1. 2 pennies, because 1 penny and 2 pennies make 3 pennies.

Tip: Be sure to require fully worded answers.

2. 4 pennies.
3. 3 pennies.
4. 2 pennies.
5. 3 peaches.

Pure Number *(optional)*

Tip: Remember, it is not every day that you will attempt work in Pure Number with your child, only those days when she is exceptionally eager. Exercises on Pure Number are placed here for your convenience and may be skipped.

1. How many are 2 and 1?
2. How many are 1 and 3?
3. 4 take away 2 leaves?
4. Two 2s make how many?
5. 1 taken from 2 leaves how many?

Answers

1. 2 and 1 are 3.
2. 1 and 3 are 4.

3. 4 take away 2 leaves 2.
 4. Two 2s make four.
 5. 1 taken from 2 leaves 1.
-

Introduction of Signs

The Symbol for the Idea (*instructions to the parent*)

After your child has learned several numbers, it is time to introduce the meanings of the signs +, −, and =. You may use a slate on which to draw the symbols and the number sentences for this lesson. You, as the teacher, will do the writing for steps 1–10 below.

1. Write the symbol “+” on the slate. Explain to your child that the sign “+” is read *plus* and means “and” or “is added to.” We place it between two numbers to show they are to be added together.
2. Write “1 + 2” and explain that we read it *one plus two*.
3. Write “2 + 2” and ask how we would read it. (*Two plus two*.)
4. Write the symbol “−” on the slate. Explain that the sign “−” is read *minus* and means “take away” or “subtract.” We put it between two numbers to show the number on the right is to be taken away from the number on the left.
5. Write “2 − 1” and explain that we read it *two minus one*.
6. Write “3 − 2” and ask how it would be read. (*Three minus two*.)
7. Write the symbol “=” on the slate. Explain that this sign “=” is read *equals* and means “is the same as” or “is equal to.” We call it the “equals sign” and it shows that what is on the left of the sign is equal to what is on the right of the sign.

5. Child tells two different ways to make 8, for example $4 + 4$ or $10 - 2$.
 6. 9 minus 2 equals 7.
 7. $6 + 6 = 12$
-

Seventeen

The Symbol for the Idea (*instructions to the parent*)

Objects used: buttons

1. Ask: We have had 15 as a ten bundle and five units; 16 as a ten bundle and six units. Which number comes after sixteen?

Tip: Be sure to give your child plenty of time to think and answer for herself.

2. Have your child count out 17 buttons using a ten bundle and units.
3. Now draw a 17 on the slate in order to show the symbol for the idea of *seventeen*.
4. Ask how many ten bundles and units make 17.

Tip: Again, always give ample time for answering.

5. Now it is your child's turn to write the number 17 on the slate.
6. Finally, have your child write the number 17 in her math notebook (on the 11–19 numbers page).

Sums

1. Marianne wants to use 17 buttons to string a necklace. She has strung 12 buttons. How many has she left to string?
2. Brandon has collected 15 buttons. How many more does he need to make 17?

3. Lydia needs 17 buttons to make a bracelet. She has only 6. How many more does she need?
4. Together, Georgia and Henrietta have 17 buttons to make hair clips. If Georgia has 8 buttons, how many has Henrietta?
5. Frederic has 17 new buttons for his button jar. He has put 7 in the jar. How many remain?
6. Together, Rosa and Philip spent \$17 at the bookstore. Rosa's book cost \$11. How much did Philip's book cost?
7. Vashti is saving \$17 to buy knitting needles. She has saved \$13. How much more must she save?
8. Martina and Lucas together picked 17 lemons. If Martina picked 11, how many lemons did Lucas pick?
9. Henry is 17 years old and Jacob is 10 years younger than he. How old is Jacob?
10. There were 17 ducks on a pond. 2 flew away. How many ducks remained?

Answers

1. 5 buttons, because $12 + 5 = 17$ or $17 - 12 = 5$.
- Tip: Be sure to require fully worded answers.*
2. 2 buttons.
 3. 11 buttons.
 4. 9 buttons.
 5. 10 buttons.
 6. \$6.
 7. \$4.
 8. 6 lemons.
 9. 7 years old.
 10. 15 ducks.

Counting

1. Count out 17 buttons.
2. Now count them forward and backward.
3. How many groups of twos are in 17?

Tip: To be taken experimentally.

4. Count to 17 and back again.

Review

1. Amy caught 3 fish and her father also caught 3 fish. How many fish were caught all together?
2. Esther is holding 2 kittens in her lap and Louis is holding 3 kittens. How many kittens in all?
3. Silas and Hannah bought a baseball and a bat for \$16. If the bat cost \$11, how much was the ball?
4. Lina has 6¢ and found another 6¢ in her jacket pocket. How much has Lina?
5. Gabriel buys a goldfish for \$2 and a fishbowl for \$9. How much must he give the shopkeeper?
6. Yasmine gives the shopkeeper \$15 for a dog collar that costs \$13. How much change should she receive back?
7. There were four lambs born yesterday and 3 born today. How many lambs were born in all?
8. Adam and Aya picked 17 quarts of berries. If Adam picked 8 quarts, how many quarts did Aya pick?

Numeration and Notation *(instructions to the parent)*

1. Write in a column on either the slate or on grid paper and ask your child to read: 18, 45, 54, 12, 0, 6, 23, 38, 51.
2. Ask your child to write in a column either on the slate or in her math notebook while you dictate: 11, 52, 36, 41, 14, 19, 8, 25.

Sixty through Sixty-Nine

The Symbols for the Ideas *(instructions to the parent)*

Objects used: craft sticks

1. Leave concrete objects, such as bundles and units of craft sticks, off the table for a moment and ask your child something like: We know 4 tens are 40 and 5 tens are 50. What do you suppose 6 tens are called?
2. Have your child get out 6 ten bundles and some units of craft sticks and see if she is able to show 60 through 69.
3. Write in a column on the slate or grid paper and have your child read: 60, 61, 62, 63, 64, 65, 66, 67, 68, 69.
4. Your child may now write on her slate the numbers 60–69.
5. Next, ask your child to write the numbers 60–69 in a column in her math notebook. (You may want to start a new page for 60–69.)

Tip: Remember, the writing of numbers on the slate and in the notebook may be spread out during the next 7–10 days.

Set I

(Sixty through Sixty-Nine)

Sums

Objects used: craft sticks

1. Jason is collecting 60 craft sticks to build a model of a tree house. So far, he has collected 49. How many more has he to collect?
2. Mackenzie has 28 colored craft sticks and 39 plain craft sticks. How many has she all together?
3. The neighborhood children are planning to build a hut. They want to gather 66 sticks and have thus far gathered 58. How many have they left to collect?
4. How many sticks added to 23 sticks to make 63?
5. How many sticks added to 17 sticks to make 61?

Answers

1. 11 sticks, because $49 + 11 = 60$ or $60 - 49 = 11$.

Tip: Accept either response.

Tip: Be sure to require fully worded answers.

2. 67 sticks.
3. 8 sticks.
4. 40 sticks.
5. 44 sticks.

Review and Rapid Oral Work

1. Carter practiced his violin for 18 minutes in the morning and 22 minutes after lunch. How long did Carter practice in all?

2. Jenny is baking 24 cupcakes and 3 pies to take to the fundraiser. How many treats is she baking in all?
3. Fiona took out 7 books from the library and Elia took 8. How many books have they checked out all together?
4. 50 cookies were on a platter. 9 cookies were eaten. How many remained?
5. Tim biked 2 miles to the post office and then 2 miles back home. How many miles did he bike in all?
6. 7 pens 9 erasers 6 markers 11 paperclips
3 pens 4 erasers 3 markers 8 paperclips

Answers

1. 40 minutes, because $18 + 22 = 40$.

Tip: Be sure to require fully worded answers.

2. 27 treats.
3. 15 books.
4. 41 cookies.
5. 4 miles.
6. $7 + 3 = 10$ $9 + 4 = 13$ $6 + 3 = 9$ $11 + 8 = 19$
 $7 - 3 = 4$ $9 - 4 = 5$ $6 - 3 = 3$ $11 - 8 = 3$

Set II

(Sixty through Sixty-Nine)

Sums

Objects used: coins

1. Cory bought a candle for 62¢. She gave the clerk 65¢. How much