

# Grade 4

## Math

### Coursebook



**Oak Meadow**

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# Introduction

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## To the Student

Welcome to Grade 4 Math! This year, you will be learning exciting new ways to use math. The things you learn this year, you will use all your life: fractions, multiplying large numbers, long division, and money math.

Your parent or teacher will help you learn these new skills, and you will have plenty of time to practice them throughout the year so that you can become comfortable with the new material. These math skills are important for practical situations in daily life, but they are also the foundation for advanced math skills in later grades.

We hope you enjoy the new challenges and learning that will take place in fourth grade math!

## To the Parent/Teacher

Fourth grade math is an exciting time of discovering new concepts and mastering important computational skills. By the end of the year, your child will be able to solve four-digit addition and subtraction with carrying and borrowing, multiply multi-digit numbers, do long division, turn word problems into equations, add and subtract fractions, and find common denominators. Students will work with mixed numbers, improper fractions, bar graphs, money math, and a great many other mathematical skills.

In the process of learning these skills, we hope to demystify math while retaining the wonder inherent in the world of numbers. Your child will discover the satisfying patterns and puzzles that exist in the study of mathematics. Doors to new understanding will open, but we encourage you to recognize and even appreciate that such doors will sometimes close again. Learning can often be a cyclical process of clarity and confusion, and this can be especially true with math. While some students will make exciting connections and leap ahead with enthusiasm, others will need to gradually add layers of understanding and comfort. The same student can have both experiences with different skills, such as “getting” fractions on the first try, yet needing more time with long division.

Your child will discover the satisfying patterns and puzzles that exist in the study of mathematics.

When confusion reigns, or a door closes, letting the skill rest is usually the best and most effective approach. Often, after taking a break for a few days or even weeks, the child's mind is ready to receive and comprehend the process, and they are ready to move forward once again. Gaining a real understanding of math takes time and plenty of practice, and it is a good idea to frequently let your child go back and review previously learned material. This helps build a solid foundation of math skills and helps build your child's confidence in his abilities. After taking a break from a challenging skill, always go back to the skill and take as long as is necessary to let your child grasp it fully. Math skills frequently build upon one another, and each one is essential to a complete math education.

Before each lesson, take some time to familiarize yourself with the material by reading the information in the "New Concepts" section and looking over the assignments and the practice sets. Use the assignment summary in each lesson to check off each assignment as it is completed and keep track of what still needs to be done. In addition, you will find a learning assessment at the end of each lesson that you can use to make notes on your child's progress as math skills are strengthened and new skills are acquired. There is also a list of materials in each lesson, as well as a comprehensive list included in the appendix.

In addition to the practice sets in each week's lesson, there is a selection of practice sets in the appendix of this coursebook. Use these for extra review at any time during the year, or as a basis for creating your own practice problems that are specifically tailored to meet your child's individual needs. You will find answers for all the practice sets (those in each lesson and those in the appendix) as well as the year-end assessment in the appendix.

Every child has a unique learning style, and it is important to take this into consideration when introducing new skills. Students who are very physical (kinesthetic or tactile learners) will enjoy marching, jumping, or skipping around the house or yard while reciting the times tables. Math manipulatives, such as unit blocks or simple household objects like acorns, pennies, or pebbles, are very useful for the tactile learner. Auditory learners will benefit from chanting math facts or talking aloud while doing computations. Students who are visual learners can be encouraged to illustrate math problems to get a clear picture of the equation before translating it into abstract numbers.

While moving through this course, you may want to have your child work directly in this book, and space has been provided for writing computations and solutions. Alternately, you can have your child copy the problems by hand into the math main lesson book or a separate notebook. Learning to copy number problems accurately is an important skill requiring great attention to detail.

When working with place value, using graph paper can be particularly helpful for students. Even if graph paper is not needed for adding and subtracting multi-digit numbers, once your student begins multiplying two- and three-digit numbers and doing long division, keeping track of place value can become tricky. Graph paper helps students learn to keep columns straight and place value evident. Using graph paper with a small grid can present problems if your child's numbers become cramped and hard to read, so try to find graph paper with a large grid, or make your own.

Many adults have memories of struggling with math, but it is very probable that math was fun until a particular skill was introduced in a way that did not make sense. Maybe it was long division, or decimals, or fractions, but the door to understanding did not open and confusion continued. For many of us, all subsequent math work (and memories) became colored by this difficulty, which we tend to remember keenly. No matter what the parent's experience with math, it's important to let students approach new skills like fractions and long division with enthusiasm and optimism. We invite you to do the same! As you work through this material with your child, we hope both of you, as learners, are allowed the patience, space, and creativity to let things unfold at the right pace. Of course, when your student is ready to leap ahead conceptually, be ready to leap forward together!

There is a great deal of satisfaction when math “makes sense.” We have written this math course with that goal in mind. Good luck to you and your child, and we hope you enjoy Oak Meadow's Grade 4 Math.

## Lesson

# 1

# Addition, Subtraction, and Skip Counting

The year begins with a thorough review of the four processes—addition, subtraction, multiplication, and division—all of which were covered in third grade. Over the next few weeks, review each of these processes to help your child “sweep out the cobwebs” of summer vacation. Practice problems are provided for you on the pages following, but we hope you will not limit your child’s practice to these worksheets. Most children learn best by using a variety of methods.

## Assignments

1. Review the four processes, both orally and in written form.
2. Review counting by 2s, 5s, and 10s (“skip counting”). Take some time this week to do active counting games, such as jumping rope, tossing a ball back and forth, or doing hand-clapping games while skip counting. Take turns with your child saying the numbers, or say them in unison. Practice throughout the week in a variety of ways to review the 2, 5, and 10 times tables.
3. Do some or all of the practice sets in this lesson:
  - Practice Adding
  - Practice Subtracting
  - Practice Adding Columns of Numbers
  - Practice Skip Counting and Sequencing

## Activity

### Math Games

All games can be played exactly as outlined, but we suggest that you use your imagination to create new versions that suit your child’s particular needs. Most games can be changed for use in a variety of different situations.

## ASSIGNMENT SUMMARY

- ☐ Review four processes, orally and in writing.
- ☐ Practice skip counting by 2s, 5s, and 10s.

### Complete practice sets

- ☐ Practice Adding
- ☐ Practice Subtracting
- ☐ Practice Adding Columns of Numbers
- ☐ Practice Skip Counting and Sequencing

### Activity

- ☐ Math Games

## MATERIALS

poster board  
crayons or colored pencils  
small playing pieces  
one die  
colored sidewalk chalk  
deck of cards



Store-bought games that use numbers are also excellent practice and lots of fun. Ideas include Monopoly, Dominoes, and Yahtzee, as well as many card games.

## Number Pie

### MATERIALS

poster board

crayons or colored pencils

small playing pieces

1 die

Number of players: Unlimited

1. Draw a large circle on a piece of poster board and divide it into 14 even slices. Number each slice of the circle, using the numbers from 1–14 in random order. Make your number pie colorful and attractive (see diagram).
2. Each player needs a small playing piece, such as a dried bean, pebble, or penny.
3. Designate the slot with “1” as the starting place. Players will be moving their playing pieces around the entire circle from there.
4. To play, throw the die. The player must add the number on the die to the number in the pie slice their playing piece currently occupies.

Example: Your child throws a 5, and her playing piece is on 1. She must add  $5 + 1$ . If she answers correctly, she moves her playing piece to the next slice and adds 5 to that number. In this fashion, she progresses around the entire circle, adding 5 to each number. If she keeps answering correctly, she keeps taking another turn. If she is unable to answer a problem, other players may help her; or, she forfeits her turn and the next player throws the die and proceeds in the same fashion.



## Number Hopscotch

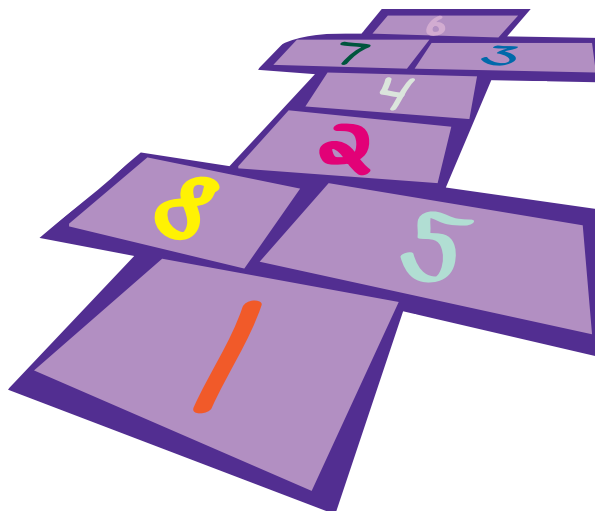
### MATERIALS

colored chalk

driveway or other large flat surface

Number of players: Unlimited

Note: This game will quickly take the student into addition far beyond 20, so it is best for those who are very comfortable with number combinations up to 20 and are ready for more of a challenge.



1. With colored chalk, draw a large hopscotch board on your driveway or other appropriate surface. It should have enough squares to include all the numbers from 1–10, or higher if you desire. Write the numbers in the squares in random order.
2. To play: Hop onto the first square and add that number to itself. (If the first square has a 5 written on it, add  $5 + 5$ .) Next, hop to the next square and add that number to the current sum. (If the next square is 7, add  $10 + 7$ .) When you land with two feet on two squares, add the two squares together first, and then add them to the current sum—this will not be easy! Make your way through all the squares, adding the numbers to the current total. See how fast you can hop and add!
3. When you get to the end of the squares, turn around and play it backward, subtracting as you hop back toward the first square.

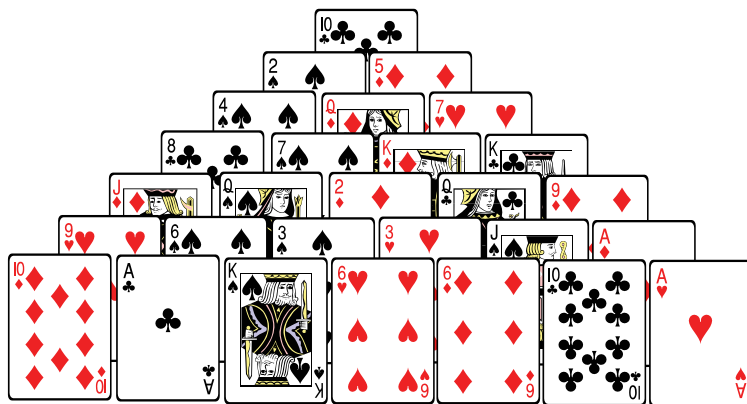
## Pyramid Solitaire

### MATERIALS

a full deck of cards

Number of players: One

Lay out the cards faceup in a pyramid shape. Start with one card, then place two cards overlapping the bottom of the first card, then place three cards overlapping the bottom of those two, and so on, until you have laid out a pyramid. There should be 7 cards in the final row at the bottom. (See the illustration above.) Lay the rest of the cards facedown.



1. King = 13, Queen = 12, Jack = 11, 10 = 10, 9 = 9, and so on down to Ace = 1.

2. The object is to remove all the cards from the pyramid. This is done by adding together any pairs of cards that are not covered by any other card to make a sum of 13. Remove each card as you add it. A King stands alone, so if a King is not covered, simply remove it. You are looking for pairs that equal 13 (9 + 4, 10 + 3, Jack + 2, etc.). Remove all the pairs you can. You are likely to have many cards left that cannot be removed.
3. When you have made all the sums of 13 you can, begin going through the cards remaining in the deck, one by one. Whenever a card is turned up that can be matched with one of the completely exposed cards on the pyramid to make a sum of 13, set those two cards aside.
4. Go through the extra stack as often as necessary—but only in the order they appear as you turn them over one by one. When no more combinations of 13 can be made, you're done! Your goal is to use all the cards and use up the entire pyramid, but you will “win” the game only occasionally.
5. If your child has trouble remembering the value of the face cards, you can write them down so he can refer to it as often as necessary, or you can remove the face cards from the deck.
6. To make the game trickier and improve mental math skills, you can also allow three-card combinations that add up to 13.

## Concentration

### MATERIALS

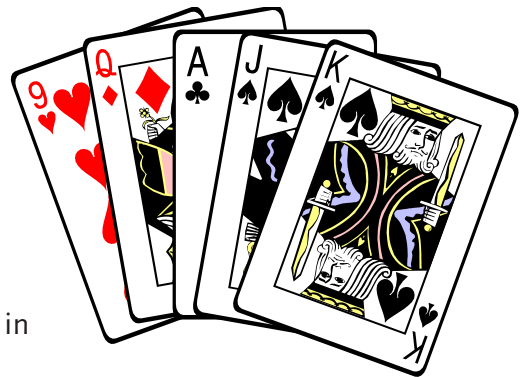
a full deck of cards

Number of players: Unlimited

1. Just as with any regular game of concentration, begin by shuffling the deck and laying all the cards out face down in a large, orderly rectangle.
2. The goal is to pair each card with another of the same number, thereby winning the most number of pairs. Players go about this by turning over two cards per turn. Players may only keep cards that match (a pair of 3s, a pair of 7s, a pair of Queens, etc.). The hitch is that each player must also add (or subtract, depending on what you are currently working on with your child) the numbers on the two cards she turns over each turn.

Example: Player #1 turns over a 3 and a 4. He adds  $3 + 4$ . Clearly, these are not a pair, so he doesn't get to keep them. Player #2 turns over a 3 and a 7 and adds  $3 + 7$ . She doesn't get to keep them, because they're not a pair. Now it is Player #1's turn again, and he remembers where both the 3s are. He turns them over, adds  $3 + 3$ , and removes the two 3s from the playing field. In this way, turn after turn, your child is practicing adding (or subtracting) while also exercising visual memory in trying to locate the card pairs.

3. If you are playing competitively, the player with the most pairs of cards at the end of the game is the winner.



# Duel

## MATERIALS

a full deck of cards

Number of players: Two

1. Deal out the entire deck, facedown, so each player ends up with half a deck.
2. At the same time, the players turn the top card faceup. The person with the higher card wins the two cards, but only if she can add (or subtract, depending on what you are working on) the numbers on the cards correctly. If the arithmetic is done correctly the player keeps the pair of cards; otherwise the cards are returned to the bottom of the deck.
3. Decide ahead of time what math operation you will practice with this game. It's good for addition, subtraction, and even multiplication. The adult may also make mistakes for the child to catch, and if the child can catch the errors, she wins the cards.

# Skip-Counting Game for Times Table Practice

Number of players: Unlimited

1. Decide which times table to use for skip counting. We suggest beginning with 2, 5, or 10. When you get more involved in a times table review, expand the game to include any table you are working on.
2. While marching around in a large circle, skip count (chanting or singing, if you like) up to 50. (If you are starting with skip counting by 2 or if your child finds this activity to be very challenging, begin by counting only up to 20 until your child feels confident.) When you get to 50, you must begin to march backward while skip counting backward down through the numbers to zero.  
  
Example: If you had planned to count by 5s, march forward and say, "5, 10, 15, 20, 25, 30, 35, 40, 45, 50," and then begin marching backward, saying, "50, 45, 40, 35," etc. Try to create a smooth transition when you hit 50, so you move forward from 45 to 50 and then immediately backward to 45 as you move down the numbers again.
3. Your child might also enjoy clapping while marching, but don't give up the marching. The physical movement is a crucial part of what makes this game effective for memorization. Most children respond well to music and rhythm, and will also benefit from chanting the numbers to a simple tune.

**Practice Adding**

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 1 \\ \hline \end{array}$$

**Practice Subtracting**

$$\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ -3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -6 \\ \hline \end{array}$$

**Practice Adding Columns of Numbers**

$$\begin{array}{r} 2 \\ 4 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 4 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 1 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 5 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ 2 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ 1 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 2 \\ 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ 6 \\ 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 5 \\ 3 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 4 \\ 6 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ 1 \\ 2 \\ + 3 \\ \hline \end{array}$$

**Practice Skip Counting and Sequencing**

2, 4, \_\_\_\_\_, 8, 10, 12, \_\_\_\_\_, 16, \_\_\_\_\_, 20, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 30

40, 42, 44, \_\_\_\_\_, \_\_\_\_\_, 50, 52, 54, \_\_\_\_\_, \_\_\_\_\_, 60

5, 10, \_\_\_\_\_, 20, \_\_\_\_\_, 30, 35, \_\_\_\_\_, \_\_\_\_\_, 50

100, 105, 110, \_\_\_\_\_, 120, 125, \_\_\_\_\_, \_\_\_\_\_, 140, \_\_\_\_\_, 150

0, 10, 20, \_\_\_\_\_, 40, \_\_\_\_\_, \_\_\_\_\_, 70, \_\_\_\_\_, \_\_\_\_\_, 100

200, 210, \_\_\_\_\_, 230, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 270, \_\_\_\_\_, \_\_\_\_\_, 300

50, \_\_\_\_\_, 60, \_\_\_\_\_, \_\_\_\_\_, 75, \_\_\_\_\_, \_\_\_\_\_, 90, \_\_\_\_\_, 100

100, 110, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 160, \_\_\_\_\_, \_\_\_\_\_, 190, \_\_\_\_\_

601, 602, \_\_\_\_\_, 604, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 608, \_\_\_\_\_, 610

350, 352, \_\_\_\_\_, \_\_\_\_\_, 358, \_\_\_\_\_, 362, \_\_\_\_\_, 366, \_\_\_\_\_, 370



**FOR ENROLLED STUDENTS**

You will be sending a sample of work from this lesson to your Oak Meadow teacher at the end of lesson 4. In the meantime, feel free to contact your teacher if you have any questions about the assignments or the learning process. You can use the assignment summary checklist and the learning assessment form to keep track of your student's progress. You will be sending this documentation to your teacher every four weeks (with each submission of student work).

## Learning Assessment

These assessment rubrics are intended to help you track your student's progress throughout the year. Please remember that these skills continue to develop over time. Use this space to make notes about the learning your child demonstrates or skills that need work.

SKILLS	Developing	Consistent	Competent	Notes
Uses addition and subtraction in daily situations				
Solves two- and three-digit addition and subtraction without carrying or borrowing				
Solves two- and three-digit addition and subtraction with carrying or borrowing				
Checks addition and subtraction answers using opposite process				
Has memorized times tables up to 12				
Solves simple division problems in vertical format				
Solves simple division problems with remainders in vertical format				
Identifies place value up to six digits				
Translates word problems into mathematical equations				
Tells time and solves time questions using an analog clock				
Demonstrates understanding of odd, even, greater than, less than, and equal to				

## Lesson

# 2

# Three-Digit Addition and Subtraction

As we move forward this week into word problems and multi-digit addition and subtraction, continue to focus on anything your child struggled with last week. If your child is ready to practice number combinations above 20, proceed at his pace. The math games from lesson 1 can be adapted to higher number combinations.

Remember to take advantage of daily real-life opportunities for your child to solve simple math problems.

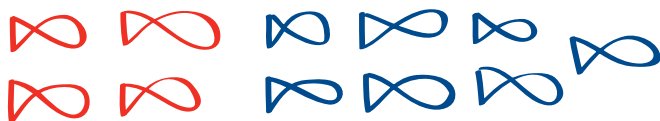
### New Concepts

Word problems are introduced this week. Encourage your child to draw the word problem first to have a pictorial representation. Next, help your child figure out how to turn the words into a mathematical equation before solving the problem.

For example, the first problem reads:

Jeff and Maggie went to the pet store. They saw 4 red fish and 7 blue fish. How many fish did they see?

Your child might draw it like this:



Next, have your child translate this into numbers. Your child can use either the horizontal or vertical format:

$$4 + 7 = 11$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline 11 \end{array}$$

### ASSIGNMENT SUMMARY

- ☐ Practice two- and three-digit addition and subtraction.
- ☐ Check addition and subtraction answers using the opposite process.
- ☐ Review place value up to four digits.
- ☐ Practice skip counting with large numbers (20, 50, 100, 1,000, etc.)
- ☐ Translate word problems into numeric equations.

### Complete practice sets

- ☐ Review Skip Counting and Sequencing
- ☐ Practice Adding and Subtracting
- ☐ More Practice Adding and Subtracting
- ☐ Practice Adding and Subtracting Larger Numbers
- ☐ Place Value Practice
- ☐ Word Problems for Adding and Subtracting

Word problems always get answered with words. First, they are translated into numeric equations and solved, and then answered as a sentence. After your child has solved the problem in numeric form, have them write the answer as a complete sentence: They saw 11 fish. This is the format to follow for all the word problems in this book. Both the numeric equation and the written sentence form the final answer.

## Assignments

1. Practice two- and three-digit adding and subtracting on paper (without borrowing and carrying). Show your child how to check addition answers by subtracting, and check subtraction answers by adding. Help your child develop the habit of checking all answers in this way.
2. Review the place value for each digit in a series of numbers of different sizes up through a place value of one thousand. Moving from right to left, the columns are as follows: ones, tens, hundreds, thousands.
3. Continue last week's skip-counting game with 2, 5, and 10. If your child is ready, go on to practice skip counting with 20, 50, 100, and 1,000. Practice orally with active movement, such as marching, skipping, hopping, or tossing a ball).
4. Do some or all of the practice sets in this lesson:
  - Review Skip Counting and Sequencing
  - Practice Adding and Subtracting
  - Practice Adding and Subtracting Larger Numbers
  - Place Value Practice
  - Word Problems for Adding and Subtracting

## FOR ENROLLED STUDENTS

Feel free to contact your teacher if you have any questions about the assignments or the learning process. You will be sending a sample of work from this lesson to your Oak Meadow teacher at the end of lesson 4. Continue documenting your student's progress with the assignment summary checklist and the learning assessment form.

**Review Skip Counting and Sequencing**

22, \_\_\_\_\_, \_\_\_\_\_, 28, 30, \_\_\_\_\_, \_\_\_\_\_, 36, \_\_\_\_\_, 40

20, 40, \_\_\_\_\_, \_\_\_\_\_, 100, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 180, \_\_\_\_\_

220, 222, 224, \_\_\_\_\_, \_\_\_\_\_, 230, 232, \_\_\_\_\_, \_\_\_\_\_, 238, \_\_\_\_\_

35, 40, \_\_\_\_\_, 50, \_\_\_\_\_, 60, 65, \_\_\_\_\_, \_\_\_\_\_, 80

300, 305, \_\_\_\_\_, \_\_\_\_\_, 320, 325, \_\_\_\_\_, \_\_\_\_\_, 340, \_\_\_\_\_, \_\_\_\_\_

0, \_\_\_\_\_, \_\_\_\_\_, 30, \_\_\_\_\_, \_\_\_\_\_, 60, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 100

200, 250, \_\_\_\_\_, \_\_\_\_\_, 400, \_\_\_\_\_, \_\_\_\_\_, 550, \_\_\_\_\_, \_\_\_\_\_, 700

110, \_\_\_\_\_, 120, \_\_\_\_\_, \_\_\_\_\_, 135, \_\_\_\_\_, \_\_\_\_\_, 150, \_\_\_\_\_, \_\_\_\_\_

70, 80, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 130, \_\_\_\_\_, \_\_\_\_\_, 160, \_\_\_\_\_

430, \_\_\_\_\_, 432, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 438, \_\_\_\_\_, \_\_\_\_\_

100, \_\_\_\_\_, 300, \_\_\_\_\_, \_\_\_\_\_, 600, \_\_\_\_\_, \_\_\_\_\_, 900, \_\_\_\_\_

1,000, 2,000, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 7,000, \_\_\_\_\_, \_\_\_\_\_, 10,000

1,001, 1,002, \_\_\_\_\_, 1,004, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 1,008, \_\_\_\_\_, 1,010

250, 300, \_\_\_\_\_, \_\_\_\_\_, 450, \_\_\_\_\_, \_\_\_\_\_, 600, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 800

5,000, 5,100, \_\_\_\_\_, \_\_\_\_\_, 5,400, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 5,800, \_\_\_\_\_, \_\_\_\_\_

**Practice Adding Columns of Numbers**

Note: Pay careful attention to whether it is a plus or minus sign!

$$\begin{array}{r} 21 \\ + 18 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ - 34 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ - 22 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ - 31 \\ \hline \end{array}$$

$$\begin{array}{r} 89 \\ - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 123 \\ + 456 \\ \hline \end{array}$$

$$\begin{array}{r} 340 \\ + 229 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ 1 \\ 2 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 3 \\ 4 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ 4 \\ 7 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 204 \\ + 263 \\ \hline \end{array}$$

$$\begin{array}{r} 421 \\ + 366 \\ \hline \end{array}$$

**More Practice Adding and Subtracting**

$$\begin{array}{r} 7 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ + 12 \\ \hline \end{array}$$

$$\begin{array}{r} 91 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ + 36 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ - 22 \\ \hline \end{array}$$

$$\begin{array}{r} 873 \\ - 141 \\ \hline \end{array}$$

$$\begin{array}{r} 667 \\ - 245 \\ \hline \end{array}$$

$$\begin{array}{r} 348 \\ - 36 \\ \hline \end{array}$$

$$\begin{array}{r} 876 \\ - 72 \\ \hline \end{array}$$

$$\begin{array}{r} 421 \\ + 36 \\ \hline \end{array}$$

**Practice Adding and Subtracting Larger Numbers**

$$\begin{array}{r} 124 \\ + 305 \\ \hline \end{array}$$

$$\begin{array}{r} 416 \\ + 242 \\ \hline \end{array}$$

$$\begin{array}{r} 190 \\ + 208 \\ \hline \end{array}$$

$$\begin{array}{r} 276 \\ - 136 \\ \hline \end{array}$$

$$\begin{array}{r} 976 \\ - 325 \\ \hline \end{array}$$

$$\begin{array}{r} 842 \\ - 340 \\ \hline \end{array}$$

$$\begin{array}{r} 758 \\ - 437 \\ \hline \end{array}$$

$$\begin{array}{r} 415 \\ + 362 \\ \hline \end{array}$$

$$\begin{array}{r} 4,643 \\ + 246 \\ \hline \end{array}$$

$$\begin{array}{r} 8,987 \\ - 3,214 \\ \hline \end{array}$$

$$\begin{array}{r} 9,940 \\ - 720 \\ \hline \end{array}$$

$$\begin{array}{r} 8,763 \\ - 721 \\ \hline \end{array}$$

## Place Value Practice

1. In 1,342, what digit is in the tens place? \_\_\_\_\_ What digit is in the thousands place? \_\_\_\_\_
2. In 4,874, what digit is in the hundreds place? \_\_\_\_\_
3. Write a number with 3 in the ones place and 5 in the tens place. \_\_\_\_\_
4. Write a number with 4 in the thousands place and 3 in the tens place. \_\_\_\_\_
5. Write this number in words: 627 \_\_\_\_\_
6. Write this number in words: 8,645 \_\_\_\_\_
7. Write a number with 2 in the thousands place, 7 in the hundreds place, and 4 in the ones place.  
\_\_\_\_\_
8. In 3,410, in which place is the 4? \_\_\_\_\_
9. In digits, write the number six thousand, three hundred twenty-one. \_\_\_\_\_
10. In 5,025, in what places are the 5s? \_\_\_\_\_



## Word Problems for Adding and Subtracting

Note: Write the problem out in number form either in a line (horizontally) like this,  $5 + 5 = 10$ , or in a column (vertically) like this:

$$\begin{array}{r} 5 \\ + 5 \\ \hline 10 \end{array}$$

1. Jeff and Maggie went to the pet store. They saw 4 red fish and 7 blue fish. How many fish did they see?
2. Maggie wanted to buy some fish for her aquarium. She bought 3 blue fish, 2 goldfish, and 5 tiny silver fish. How many fish did she buy?
3. Jeff was especially interested in the kittens. There were lots of kittens at the pet store. In one cage there were 6 little newborn kittens. In another cage there were 5 bigger kittens with short hair. In a third cage there were 7 kittens with long hair. How many kittens did the pet store have?
4. While Maggie and Jeff were in the store, someone came in to buy some hamsters. There were 15 hamsters in the cage. The customer decided to buy 4 hamsters. How many were left?
5. In another hamster cage there were 8 hamsters. A woman came in and bought 3. How many hamsters were left in that cage?
6. How many hamsters were bought altogether?
7. How many hamsters were left in the two cages?

## Learning Assessment

These assessment rubrics are intended to help you track your student's progress throughout the year. Please remember that these skills continue to develop over time. Use this space to make notes about the learning your child demonstrates or skills that need work.

SKILLS	Developing	Consistent	Competent	Notes
Uses addition and subtraction in daily situations				
Solves two- and three-digit addition and subtraction without carrying or borrowing				
Solves two- and three-digit addition and subtraction with carrying or borrowing				
Checks addition and subtraction answers using opposite process				
Has memorized times tables up to 12				
Solves simple division problems in vertical format				
Solves simple division problems with remainders in vertical format				
Identifies place value up to six digits				
Translates word problems into mathematical equations				
Tells time and solves time questions using an analog clock				
Demonstrates understanding of odd, even, greater than, less than, and equal to				

## Lesson

# 6

# Division with Remainders

Throughout the year, continue reviewing times tables 0–12 until they become automatic. Use a variety of practice techniques, including games, physical approaches, verbal drills, and written problems.

### Assignments

1. Review the concepts of greater than, less than, and equal to. Write down pairs of whole numbers and ask your child to identify one number as greater than, less than, or equal to the other. Start with easy numbers before progressing to more challenging material. Have your child use the symbols  $>$  (greater than),  $<$  (less than), or  $=$  (equal to).

For example:  $6 > 3$     $8 < 10$     $12 > 9$     $20 = 20$

When your child feels confident with simple problems, you can offer ones like this:

$$\begin{array}{ll} 52 \underline{\hspace{2cm}} 81 \\ 1,344 \underline{\hspace{2cm}} 1,452 \\ 1,105 \underline{\hspace{2cm}} 1,105 \\ 8 + 2 \underline{\hspace{2cm}} 3 + 9 \\ 4 \times 1 \underline{\hspace{2cm}} 7 - 3 \\ 3 \times 5 \underline{\hspace{2cm}} 15 + 2 \end{array}$$

2. Practice simple division with remainders in vertical format. For now, you may want to stay within the bounds of the times tables your child has mastered. More complicated long division will be presented later.

Example:

$$\begin{array}{r} 1 \text{ r}1 \\ 4 \overline{)5} \end{array} \qquad \begin{array}{r} 2 \text{ r}3 \\ 6 \overline{)15} \end{array}$$

### ASSIGNMENT SUMMARY

- ☐ Review using signs for *greater than*, *less than*, and *equal*.
- ☐ Practice division with remainders.

### Complete practice sets

- ☐ Practice Odd and Even
- ☐ Practice Greater Than, Less Than, Equal To
- ☐ Practice Multiplication and Division
- ☐ Practice Addition and Subtraction
- ☐ Practice Division with Remainders

3. Do some or all of the practice sets in this lesson:

- Practice Odd And Even
- Practice Greater Than, Less Than, Equal To
- Practice Multiplication and Division
- Practice Addition and Subtraction
- Practice Division with Remainders

### FOR ENROLLED STUDENTS

A sample of work from this lesson will be sent to your Oak Meadow teacher at the end of lesson 8. Continue to use the assignment checklist and learning assessment form to help you organize your lessons and track your student's progress.

### Practice with Odd and Even

1. List 4 even numbers between 0 and 20.

2. List 5 odd numbers between 1 and 19.

3. Circle the even numbers below:

1   4   7   9   6   3   12   15   16   20   24   13   8

4. Circle the odd numbers below:

3   4   8   9   11   12   15   16   17   18   24   27

**Practice Greater Than, Less Than, Equal To**

1.  $16$  \_\_\_\_\_  $13$

2.  $29$  \_\_\_\_\_  $62$

3.  $5$  \_\_\_\_\_  $11$

4.  $25$  \_\_\_\_\_  $52$

5.  $3 \times 12$  \_\_\_\_\_  $40$

6.  $33 - 11$  \_\_\_\_\_  $2 \times 11$

7.  $9 + 5$  \_\_\_\_\_  $2 + 12$

8.  $8 \times 2$  \_\_\_\_\_  $17 - 3$

9.  $3 \times 6$  \_\_\_\_\_  $20$

10. If a number is more than  $5 \times 4$ , is it  $>$  (greater than),  $<$  (less than), or  $=$  (equal to) 15?

11. If a number is two less than  $6 \times 5$ , is it  $>$  (greater than),  $<$  (less than), or  $=$  (equal to) 20?

12. If a number is either  $6 \times 4$  or  $3 \times 8$ , is it  $>$  (greater than),  $<$  (less than), or  $=$  (equal to) 27?

13. Make up a series of practice problems along these lines. Let your child make up some for you, too. Take turns trying to trick each other.

**Practice Multiplication and Division**

$5 \times 6 = \underline{\hspace{2cm}}$

$42 \div 7 = \underline{\hspace{2cm}}$

$8 \times 4 = \underline{\hspace{2cm}}$

$9 \times 3 = \underline{\hspace{2cm}}$

$64 \div 8 = \underline{\hspace{2cm}}$

$15 = 3 \times \underline{\hspace{2cm}}$

$24 \div 8 = \underline{\hspace{2cm}}$

$6 \times \underline{\hspace{2cm}} = 48$

$72 = 9 \times \underline{\hspace{2cm}}$

**Practice Adding and Subtracting**

$$\begin{array}{r} 12 \\ 47 \\ + 62 \\ \hline \end{array}$$

$$\begin{array}{r} 326 \\ - 243 \\ \hline \end{array}$$

$$\begin{array}{r} 729 \\ + 496 \\ \hline \end{array}$$

$$\begin{array}{r} 868 \\ - 693 \\ \hline \end{array}$$

**Practice Division with Remainders**

$$4 \overline{)15}$$

$$5 \overline{)26}$$

$$3 \overline{)11}$$

$$8 \overline{)65}$$

$$12 \overline{)28}$$

$$3 \overline{)17}$$

$$2 \overline{)9}$$

$$6 \overline{)39}$$

## Learning Assessment

Use these assessment rubrics to track your student's progress throughout the year. Please remember that these skills continue to develop over time. Use this space to make notes about the learning your child demonstrates or skills that need work.

SKILLS	Developing	Consistent	Competent	Notes
Uses addition and subtraction in daily situations				
Solves two- and three-digit addition and subtraction without carrying or borrowing				
Solves two- and three-digit addition and subtraction with carrying or borrowing				
Checks addition and subtraction answers using opposite process				
Has memorized times tables up to 12				
Solves simple division problems in vertical format				
Solves simple division problems with remainders in vertical format				
Identifies place value up to six digits				
Translates word problems into mathematical equations				
Tells time and solves time questions using an analog clock				
Demonstrates understanding of odd, even, greater than, less than, and equal to				

## Lesson

# 17

# Word Problems with Measuring

### New Concepts

Now that we've reviewed teaspoons, tablespoons, cups, pints, and so on, we'll learn more about pounds and ounces.

$$16 \text{ ounces} = 1 \text{ pound}$$

To change pounds to ounces, multiply the number of pounds by 16.

If you have access to a reasonably accurate scale, help your child collect and weigh a variety of different items. If you do not have access to such a scale, explore weights at the market by weighing various amounts of produce and reading the weights on packages of foods. Find as many opportunities as you can in daily life to explore weights and measures with your child this week.

Now that your child is familiar with weights and measures, we can introduce story problems using measurements. Story problems often contain many steps. Work through the sample problem below with your child, showing how each step can be written out in number form as you work toward the solution. (Refer back to earlier lessons on measurement if necessary.)

Renee and Julia are making a chocolate cake for their mom's birthday. They need 4 cups of flour, 1 cup of chocolate powder, and 2 cups of sugar. They have a  $\frac{1}{2}$  cup measuring cup. How many times will they fill the  $\frac{1}{2}$  cup measuring cup with flour?

$$1 \text{ cup} = \text{two } \frac{1}{2} \text{ cups}$$

$$4 \text{ (cups of flour)} \times 2 \left(\frac{1}{2} \text{ cups}\right) = 8$$

They will fill the measuring cup 8 times with flour.

How many times will they fill the measuring cup with chocolate powder? How many times with sugar?

$$1 \text{ (cup of chocolate)} \times 2 \left(\frac{1}{2} \text{ cups}\right) = 2$$

$$2 \text{ (cups of sugar)} \times 2 \left(\frac{1}{2} \text{ cups}\right) = 4$$

### ASSIGNMENT SUMMARY

- ☐ Use conversions and the four processes to solve multistep word problems.

### Complete practice set

- ☐ Word Problems Using Measurements

### MATERIALS

kitchen scale (optional)



They will fill the cup 2 times with chocolate powder and 4 times with sugar.

How many times did Renee and Julia use the  $\frac{1}{2}$  cup measuring cup in all?

$$8 + 2 + 4 = 14$$

They used it 14 times.

## Assignments

1. Practice weighing amounts and converting between ounces and pounds.
2. Work with your child on solving word problems using measurements. Give plenty of practical experience with everyday tasks in the kitchen.
3. Do the following practice set:
  - Word Problems Using Measurements

## FOR ENROLLED STUDENTS

You will be sending the next batch of work to your Oak Meadow teacher at the end of lesson 20.

Continue to use the assignment checklist and learning assessment form to help you organize your lessons and track your student's progress.

## Word Problems Using Measurements

1. Gabe and Nell made lemonade for the swim team picnic. They used a 1-cup measure to fill two 1-gallon jugs. How many cups of lemonade did they need? Gabe poured 18 cups. How many did Nell pour?
2. Katie and Mark are making muffins for the picnic. The recipe uses 4 cups of blueberries. The blueberries at the market are all in 1-pint containers. How many pints will they need? How many pints will Katie and Mark need if they decide to double the recipe?
3. Erin and Evan are making sandwiches for the picnic. They plan to make 24 sandwiches. How many slices of bread will they need? If each 1-pound loaf of bread has 12 slices in it, how many pounds of bread will they need? (Hint: Remember each sandwich needs two slices of bread.)
4. Mary Ellen's grandmother is knitting several pairs of mittens. She needs 8 balls of yarn for the mittens. Each ball of yarn weighs 4 ounces and costs 1 dollar an ounce. How much will the yarn cost? How much will the total amount of yarn weigh in ounces?
5. A.J. weighs 83 pounds. How many ounces does he weigh? He is 4 feet 7 inches tall. How tall is he in inches?
6. Make a bar graph of the weights of four different children. (You can use weights of your friends or siblings, or just make up weights for imaginary children.)
7. Make a bar graph of the heights, in inches, of four different items in your house.

## Learning Assessment

Use these assessment rubrics to track your student's progress throughout the year and make notes about the learning your child demonstrates or skills that need work. Please remember that these skills continue to develop over time.

SKILLS	Developing	Consistent	Competent	Notes
Solves problems with two-digit multipliers without carrying				
Solves problems with two-digit multipliers with carrying				
Takes measurements and solves problems with weights and measures				
Makes conversions between different units of measurement				
Records data on a bar graph				
Solves multistep word problems				
Demonstrates knowledge of Roman numerals to 1,000				
Uses math in daily situations				
Solves two- and three-digit addition and subtraction with carrying or borrowing				
Checks addition and subtraction answers using opposite process				
Has memorized times tables up to 12				
Solves simple division problems with remainders in vertical format				
Identifies place value up to seven digits				
Tells time and solves time questions using an analog clock				
Demonstrates understanding of odd, even, greater than, less than, and equal to				

## Lesson

# 23

# More Money Math

### New Concepts

Now that your child is comfortable with money values, you can introduce adding and subtracting with money. Explain that it is just like regular adding and subtracting, except that a dollar sign and a decimal point are added. Adding these two symbols doesn't change how the numbers are added and subtracted.

The important thing to remember is that the decimal point separates the amount of dollars from the amount of cents. This means that your child must be very careful to keep the decimal points lined up properly in written problems, so dollars get added to dollars and cents get added to cents. (It may help to use graph paper to separate the place value columns and keep the decimal points lined up.)

Remind your child that lining the decimal points up and keeping the columns aligned is important because the columns stand for ones, tens, etc. Point out that there are only two columns for cents (a column for ones and a column for tens), but there can be as many dollar columns as you need: ones, tens, hundreds, thousands, and more!

$\$.25 = 2 \text{ tens} + 5 \text{ ones}$  (or 2 dimes + 5 pennies)

$\$25.00 = 2 \text{ tens} + 5 \text{ ones}$  (or 2 ten-dollar bills + 5 one-dollar bills)

Help your child work out these problems on paper by talking through it:

"If you were adding 25¢ and 75¢, it would equal one dollar or \$1.00. You add these numbers together just like you would normally, carrying as necessary, and bring the decimal point straight down into your answer, like this."

$$\begin{array}{r} 1 \quad 1 \\ .25 \\ + .75 \\ \hline \$1.00 \end{array}$$

### ASSIGNMENT SUMMARY

- ☐ Add and subtract money in written format.
- ☐ Create a custom catalog and shop with a budget.
- ☐ Use restaurant menus to plan and budget meals.

### Complete practice set

- ☐ Practice Adding Money
- ☐ Practice Adding and Subtraction Money

### MATERIALS

graph paper  
magazines  
restaurant menus

Point out that the decimal point shows where the ones column for the dollars begins. If your child seems confused by this, tell them not to worry about it, and just add the problems in the usual way, ignoring the dollar sign and decimal point. You can revisit the idea of place value after your child is more comfortable adding and subtracting with the dollar sign and decimal point in place.

## Assignments

1. Introduce adding and subtracting money in written format. For the rest of the week, work with your child to put these new money skills to use with real-life situations and a variety of word problems.
2. Help your child cut pictures from magazines to make a custom-made catalog. Assign small money values to the items, and let your child “go shopping” with the \$10 in change. Try to set it up so your child has many options and can spend the money in a variety of different ways. (Keep this homemade catalog, as you may want to use it again later for review.)

Sometime this week, give your child a set amount of money (a budget) and a short grocery list and ask them to purchase as many items on the list as possible. It is up to your child to determine whether they have enough money.

3. Assemble your restaurant menus and work with your child on the following problems. Each problem requires several different steps, so you will probably want to spread them out over the course of the week, doing just a few each day. Remind your child to use the good nutrition habits learned in science as they plan various meals for these problems. (Keep your menus for review later in the year.)
  - a. You are feeling very hungry, and you just happen to have \$15. From one of your menus, order a meal that uses all or nearly all of your money. List your choices, along with the cost. Add them up, then subtract the total amount from your \$15 to see if you have any money left. (Hint: \$15 has to be written as \$15.00 before you can use it in a subtraction problem.)
  - b. You have \$25.00 to take your cousin out to lunch. Your mother says your little brother wants to come too. Using one of your menus, plan a healthy meal for the three of you. Your little brother might be able to order from the children’s section of the menu, which could save you money. Add up the amounts and see how much money will be left over.
  - c. Your family is going on a three-day trip. You are taking an ice chest and will buy groceries for picnic lunches, but you’ll have to eat out for breakfast and dinner. Using three different menus, plan three days’ worth of breakfasts and dinners. Use good nutritional guidelines and include desserts and beverages for at least some of the meals. Write down the meals you select and total the money spent for each meal. Then add up all the meals to find out how much your family will spend for restaurant meals on the trip.
  - d. After going to the movies, your dad offers to take everyone out for ice cream. How many people are in your group? Will they have single or double scoops? Will anyone have a shake

or banana split? Write down the mathematical calculations needed to figure out how much money your father spent on ice cream treats that night.

- e. One of your friends is vegetarian. Another friend loves meat. Plan a restaurant meal for the three of you, and figure out the cost. Each person needs a drink and a main meal. Desserts and salads are optional, but at least one of you is very hungry, so you'll need to order at least one dessert and one salad. How much money will you spend?
  - f. You are doing a few errands with your mom, and you've gotten very hungry and thirsty. You don't have much money with you—just a few dollars. What can you order that will provide the most food for your money? Remember, you need to get both food and drink. Search your menus carefully.
  - g. Look at the menu from your favorite restaurant. Plan a meal for yourself that includes each of the main food groups—dairy, grains, fruits and vegetables, and meats and proteins. List your choices (with prices) and total your bill.
  - h. Using the same menu as above, plan the same type of balanced meal for a small group of people—three or more. No one orders the same thing. List your choices (with prices) and total your bill.
4. Do some or all of the practice sets in this lesson:
- Practice Adding Money
  - Practice Adding and Subtraction Money

### **FOR ENROLLED STUDENTS**

You will be sending the next batch of work to your Oak Meadow teacher at the end of the next lesson. You may want to begin gathering samples of your child's work to send.

**Practice Adding Money**

$$\begin{array}{r} 6.25 \\ + 1.63 \\ \hline \$ . \end{array}$$

$$\begin{array}{r} 5.72 \\ + 4.15 \\ \hline \$ . \end{array}$$

$$\begin{array}{r} 2.41 \\ + .35 \\ \hline \$ . \end{array}$$

$$\begin{array}{r} 4.91 \\ + .21 \\ \hline \$ . \end{array}$$

$$\begin{array}{r} 1.16 \\ + 2.27 \\ \hline \$ . \end{array}$$

$$\begin{array}{r} 8.68 \\ + 6.93 \\ \hline \$ . \end{array}$$

**Practice Adding and Subtracting Money**

If necessary, help your child work out these problems on paper until she feels confident enough to do them on her own.

Point out that when you have a column of money values, you only have to write the dollar sign in front of the first (or top) number and in front of the answer.

$$\begin{array}{r} \$8.95 \\ - 2.31 \\ \hline \end{array}$$

$$\begin{array}{r} \$7.54 \\ - 3.24 \\ \hline \end{array}$$

$$\begin{array}{r} \$14.28 \\ - 1.07 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.09 \\ - 2.96 \\ \hline \end{array}$$

$$\begin{array}{r} \$25.25 \\ - 22.19 \\ \hline \end{array}$$

$$\begin{array}{r} \$49.89 \\ - 19.99 \\ \hline \end{array}$$

$$\begin{array}{r} \$42.15 \\ 22.10 \\ + 3.07 \\ \hline \end{array}$$

$$\begin{array}{r} \$32.41 \\ 60.20 \\ + 82.06 \\ \hline \end{array}$$

$$\begin{array}{r} \$90.00 \\ 4.09 \\ + 88.88 \\ \hline \end{array}$$

## Learning Assessment

Use these assessment rubrics to track your student's progress throughout the year and make notes about the learning your child demonstrates or skills that need work. Please remember that these skills continue to develop over time.

SKILLS	Developing	Consistent	Competent	Notes
Differentiates between numerator and denominator				
Adds and subtracts fractions with common denominators				
Writes money amounts in numbers and words				
Adds and subtracts money amounts				
Conducts money transactions accurately				
Solves problems and makes conversions with weights and measures				
Records data on a bar graph				
Solves problems with two-digit multipliers without carrying				
Solves problems with two-digit multipliers with carrying				
Solves multistep word problems				
Demonstrates knowledge of Roman numerals to 1,000				
Uses math skills in practical situations				
Solves multi-digit addition and subtraction with carrying or borrowing				
Uses opposite process to check answers				
Has memorized times tables up to 12				
Solves division problems with remainders in vertical format				



SKILLS (CONTINUED)	Developing	Consistent	Competent	Notes
Identifies place value up to seven digits				
Tells time and solves time questions using an analog clock				
Demonstrates understanding of odd, even, greater than, less than, and equal to				



# Materials

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## Materials in Alphabetical Order

**A**nalog clock

Apple

**C**olored sidewalk chalk

Containers in various sizes

Crayons or colored pencils

**D**eck of cards

Dice

**F**ood coloring

**G**lasses or jars of the same size

Graph paper

**I**ndex card or card stock

Index cards, colored

**K**itchen scale, knife

**M**agazines

Measuring cups (for both liquid and dry measuring)

Measuring spoons

Money in different denominations

**P**ennies, nuts, pebbles, or any other tangible item

Poster board

**R**estaurant menus

Ruler

**T**ape

**Y**ardstick

## Materials (sorted by lesson)

LESSON	MATERIALS
1	Poster board Crayons or colored pencils Small playing pieces One die Colored sidewalk chalk Deck of cards
3	Analog clock
4	Deck of cards
10	Colored index cards One die
13	Containers in various sizes (cup, pint, quart, gallon) Ruler Yardstick
14	Measuring spoons Measuring cups (for both liquid and dry measuring) Ruler Yardstick
15	Graph paper (optional, wide grid is best)
17	Kitchen Scale
19	Apple Knife
20	4 clear glasses or jars of the same size Measuring cup Paper, crayons, and tape Food coloring
21	Index card or card stock
22	Money in different denominations: pennies, nickels, dimes, quarters, half dollars, and an assortment of bills
23	Graph paper Magazines Restaurant menus
26	Graph paper
28	200–300 pennies, nuts, pebbles, or any other tangible item



# Extra Practice Worksheets

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## Section One: Addition and Subtraction

### Addition and Subtraction without Carrying and Borrowing

$$\begin{array}{r} 567 \\ - 35 \\ \hline \end{array}$$

$$\begin{array}{r} 382 \\ - 51 \\ \hline \end{array}$$

$$\begin{array}{r} 832 \\ - 21 \\ \hline \end{array}$$

$$\begin{array}{r} 773 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 645 \\ + 32 \\ \hline \end{array}$$

$$\begin{array}{r} 273 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 374 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 853 \\ + 34 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ - 16 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ - 22 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ - 12 \\ \hline \end{array}$$

$$\begin{array}{r} 69 \\ - 29 \\ \hline \end{array}$$

**Addition and Subtraction without Carrying and Borrowing**

$$\begin{array}{r} 21 \\ + 31 \\ \hline \end{array}$$

$$\begin{array}{r} 53 \\ + 41 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ + 64 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ + 76 \\ \hline \end{array}$$

$$\begin{array}{r} 725 \\ - 14 \\ \hline \end{array}$$

$$\begin{array}{r} 246 \\ - 33 \\ \hline \end{array}$$

$$\begin{array}{r} 159 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 126 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 572 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 612 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 961 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 369 \\ + 20 \\ \hline \end{array}$$



# Answer Key to Lesson Practice Sets

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## Lesson 1

### Practice Adding

$$\begin{aligned}6 + 3 &= 9 \\7 + 4 &= 11 \\2 + 1 &= 3 \\8 + 4 &= 12 \\7 + 3 &= 10 \\9 + 7 &= 16 \\10 + 0 &= 10 \\9 + 2 &= 11 \\5 + 0 &= 5 \\9 + 5 &= 14 \\6 + 3 &= 9 \\4 + 1 &= 5\end{aligned}$$

### Practice Subtracting

$$\begin{aligned}7 - 1 &= 6 \\9 - 2 &= 7 \\2 - 1 &= 1 \\9 - 8 &= 1 \\4 - 3 &= 1 \\9 - 6 &= 3 \\7 - 5 &= 2 \\1 - 0 &= 1 \\3 - 0 &= 3 \\4 - 1 &= 3 \\5 - 2 &= 3 \\8 - 6 &= 2\end{aligned}$$

### Practice Adding Columns of Numbers

$$\begin{aligned}2 + 4 + 3 &= 9 \\5 + 4 + 3 &= 12 \\2 + 1 + 7 &= 10 \\3 + 5 + 2 &= 10 \\6 + 3 + 4 &= 13 \\4 + 0 &= 4 \\7 + 3 &= 10 \\9 + 2 + 7 &= 18 \\7 + 1 + 6 &= 14 \\3 + 3 + 4 &= 10 \\3 + 2 + 3 + 4 &= 12 \\1 + 6 + 3 + 4 &= 14 \\2 + 5 + 3 + 1 &= 11 \\5 + 4 + 6 + 2 &= 17 \\6 + 1 + 2 + 3 &= 12\end{aligned}$$

### Practice Skip Counting and Sequencing

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30  
40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60  
5, 10, 15, 20, 25, 30, 35, 40, 45, 50  
100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150  
0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100  
200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300  
50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100  
100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200  
601, 602, 603, 604, 605, 606, 607, 608, 609, 610  
350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370

## Lesson 2

### Review Skip Counting and Sequencing

22, 24, 26, 28, 30, 32, 34, 36, 38, 40  
 20, 40, 60, 80, 100, 120, 140, 160, 180, 200  
 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240  
 35, 40, 45, 50, 55, 60, 65, 70, 75, 80  
 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350  
 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100  
 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700  
 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160  
 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170  
 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440  
 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000  
 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000,  
 9000, 10,000  
 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009,  
 1010  
 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750,  
 800  
 5000, 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800,  
 5900, 6000

### Practice Adding and Subtracting

$21 + 18 = 39$   
 $13 + 5 = 18$   
 $56 + 23 = 79$   
 $82 + 17 = 99$   
 $55 - 34 = 21$   
 $47 - 22 = 25$   
 $66 - 31 = 35$   
 $89 - 45 = 44$   
 $123 + 456 = 579$   
 $340 + 229 = 569$   
 $4 + 1 + 2 + 6 = 13$   
 $2 + 3 + 4 + 2 = 11$   
 $6 + 4 + 7 + 3 = 20$   
 $204 + 263 = 467$   
 $421 + 366 = 787$

### Practice Adding and Subtracting

$7 - 0 = 7$   
 $8 - 5 = 3$   
 $9 + 6 = 15$   
 $11 - 2 = 9$   
 $12 + 3 = 15$   
 $65 + 12 = 77$   
 $91 + 7 = 98$   
 $18 - 9 = 9$   
 $41 + 36 = 77$

$72 - 22 = 50$   
 $873 - 141 = 732$   
 $667 - 245 = 422$   
 $348 - 36 = 312$   
 $876 - 72 = 804$   
 $421 + 36 = 457$

### More Practice Adding and Subtracting

$124 + 305 = 429$   
 $416 + 242 = 658$   
 $190 + 208 = 398$   
 $276 - 136 = 140$   
 $976 - 325 = 651$   
 $842 - 340 = 502$   
 $758 - 437 = 321$   
 $415 + 362 = 777$

### Practice Adding and Subtracting Larger Numbers

$4,643 + 246 = 4,889$   
 $8,987 - 3,214 = 5,773$   
 $9,940 - 720 = 9,220$   
 $8,763 - 721 = 8,042$

### Place Value Practice

- 4, 1
- 8
- Any number that ends in 53
- Any number with 4 in the thousands place and 3 in the tens place (e.g. 4,030)
- Six hundred twenty-seven
- Eight thousand, six hundred forty-five
- Any number with 2 in the thousands place, 7 in the hundreds place, and 4 in the ones place (e.g. 2,704)
- The hundreds place
- 6,321
- The thousands place and the ones place

### Word Problems for Adding and Subtracting

- $4 + 7 = 11$ ; They saw 11 fish.
- $3 + 2 + 5 = 10$ ; Maggie bought 10 fish.
- $6 + 5 + 7 = 18$ ; The pet store had 18 kittens.
- $15 - 4 = 11$ ; There were 11 hamsters left.
- $8 - 3 = 5$ ; There were 5 hamsters left.
- $4 + 3 = 7$ ; There were 7 hamsters bought altogether.
- $11 + 5 = 16$ ; There were 16 hamsters left in the two cages.