# MATH PARENT GUIDE – UNIT 1

**4**

| IMPORTANT CONCEPTS YOUR STUDENT SHOULD KNOW AND ACTIVITIES TO DO AT HOME |
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| **WHOLE NUMBERS, PLACE VALUE, AND ROUNDING** |

## "I Can" Help My Student

- **I can** read numbers correctly through the millions.
- **I can** write numbers correctly through millions in standard and expanded forms.
- **I can** identify the place value name and locations for multi-digit whole numbers.
- **I can** round multi-digit whole numbers to any place.
- **I can** fluently solve multi-digit addition and subtraction problems using a variety of strategies and the four operations.

## KEY WORDS TO KNOW

*algorithm:* a student-discovered step-by-step procedure for calculations

*digits:* any one of the ten symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9 used to write numbers.

*estimate:* the use of mathematical reasoning to determine a close guess of the actual value of a quantity

*expanded form:* a way to break up a number using place value…this method shows the value of each digit.

*numbers:* values that represents specific quantities along a number line

*numerals:* a symbol or name used to represent a number or quantity

*period:* a space of time between two events

*place value:* the value assigned to a position in a sequence of numbers

*rounding:* a method used to make a number simpler to compute with but keeping its value close to what it was

## What should my student already know before beginning this unit?

- ✓ Use number talks to reinforce properties of operations and mental computation
- ✓ Fluently multiply and divide within 100 using strategies
- ✓ Solve multi-step word problems using four operations

## Recommended Children's Literature

**The use of children's literature is important. Use this book to enhance both language literacy and mathematical literacy for an interdisciplinary connection.** *This book can be checked out at your local Atlanta-Fulton Public Library System www.afplweb.com*

*Amanda Bean's Amazing Dream: A Mathematical Story* by Cindy Neuschwander

# MATH PARENT GUIDE – UNIT 1

## WHOLE NUMBERS, PLACE VALUE, AND ROUNDING

| Important Concepts Addressed in this Unit | Sample Problems | How You Can Help Your Student |
|---|---|---|
| Students will use deep understanding of the relationship between multiplication and division to divide with up to four-digit dividends and one-digit divisors to find whole number quotients with remainders and determine the meaning of the remainder within context of the problem. They will select and accurately apply appropriate methods to estimate and mentally calculate quotients. They will also understand the following big ideas:<br><br>● The value of a number is determined by the place of its digits.<br>● Using rounding is an appropriate estimation strategy for solving problems and estimating.<br>● Rounded numbers are approximate and not exact. Exact answers can be rounded to different place values.<br>● A number can be written using digits in standard form, word, or expanded form.<br>● Larger numbers can be compared using the place value of the digits within the numbers. The relationship between the two numbers can be expressed using the symbols >, <, or =. | **Sample Task 1:**<br>Your class is collecting bottled water for a service project. The goal is to collect 300 bottles of water. On the first day, Max brings in 3 packs with 6 bottles in each container. Sarah wheels in 6 packs with 7 bottles in each container. About how many bottles of water still need to be collected?<br><br>Student 1<br>First, I multiplied 3 and 6 which equals 18. Then I multiplied 6 and 6 which is 36. I know 18 plus 36 is about 50. I'm trying to get to 300. 50 plus another 50 is 100. Then I need 2 more hundreds.<br>So we still need 250 bottles.<br><br>Student 2<br>First, I multiplied 3 and 6 which equals 18. Then I multiplied 6 and 6 which is 36. I know 18 is about 20 and 36 is about 40.<br>40+20=60. 300- 60 = 240, so we need about 240 more bottles.<br><br>**Sample Task 2:**<br>Stephanie and her family traveled from Atlanta, Georgia to Washington, D.C. to visit the Martin Luther King Monument. They traveled a total of 648 miles. It took them a total of 9 hours to get to Washington, D.C. If they traveled the same route back to Georgia, about how many miles would they drive? Explain your answer. | **Interactive Learning Games**<br><br>Playing games is a wonderful way to practice skills at home in a fun environment.<br><br>**Place Value**<br>http://www.sedl.org/scimath/compass/v03n02/3.html<br><br>**Comparing Number Values**<br>http://www.abcya.com/comparing_number_values.htm<br><br>**Extending Place Value Understanding**<br>http://illuminations.nctm.org/LessonDetail.aspx?ID=L367<br><br>**Thousands and Millions of Fourth Graders**<br>https://www.illustrativemathematics.org/content-standards/tasks/1808<br><br>**To Regroup or Not Regroup**<br>https://www.illustrativemathematics.org/content-standards/tasks/1189 |