

Grade 4 Module 1

Tips for Families

Key Concepts Overview

Focus TEKS: **4.2A, 4.2B, 4.2C, 4.2D, 4.4A, 4.4G, 4.5A**

The focus of Module 1 is developing place value understanding of numbers up to 1 billion and applying that understanding to round, compare, and order numbers and to add and subtract multi-digit numbers. Your student will:

- ☐ Develop knowledge of larger place values by focusing on the *times ten* pattern on the place value chart.
- ☐ Read numbers up to 1 **billion** and represent numbers in standard form, unit form, word form, and in expanded notation.
- ☐ Compare and order whole numbers.
- ☐ Round numbers through the **hundred thousands** place using the vertical number line.
- ☐ Estimate solutions by using rounding and compatible numbers to decide whether their answers are reasonable.
- ☐ Represent word problems using a strip diagram and a **letter** to represent an unknown quantity as they work toward becoming fluent with the standard algorithm for addition and subtraction.

You can use the checklist above to help monitor your student's progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

- Support your student as he draws and labels a place value chart (up to billions). Ask him to say a large number (up to 1 billion). Represent the number on the place value chart using cereal pieces to represent each place value. Challenge each other to say the name of the number that was created using word form, unit form, and expanded notation.
- Play the “Build a Number” game with your student. The objective of the game is to build a larger number than your opponent's number on a place value chart. Players take turns rolling a die and then must choose into which place value to write the digit that was rolled. (Variation: Build a smaller number.)
Be sure to talk to your student about strategy. For example, ask your student where she would write the digit if she rolled the number 6 and the objective was to build the largest possible number. Listen for her to say that she would write the digit in the empty space with the largest place value (i.e., hundred thousands or the next largest place value if hundred thousands is already taken).
- Write a 6-digit number on a piece of paper. Ask your student to round the number to the nearest hundred, nearest thousand, nearest ten thousand, and nearest hundred thousand.
- Ask your student to restate each word problem in his own words. Make sure he understands each problem before he begins to draw his strip diagram. After your student draws the strip diagram, and before he attempts to solve the problem, ask him to explain the strip diagram to you.



Terms

Algorithm (*Algoritmo*): a step-by-step procedure to solve a type of problem

$$\begin{array}{r}
 755,206 \\
 + 89,814 \\
 \hline
 845,020
 \end{array}
 \begin{array}{l}
 \swarrow \text{Addends} \\
 \swarrow \text{Sum}
 \end{array}
 \qquad
 \begin{array}{r}
 23,422 \\
 - 11,510 \\
 \hline
 11,912
 \end{array}
 \begin{array}{l}
 \swarrow \text{Difference}
 \end{array}$$

Compatible numbers (*Número compatibles*): numbers that make calculation simpler when estimating solutions; compatible numbers are not necessarily the same numbers that are obtained by rounding

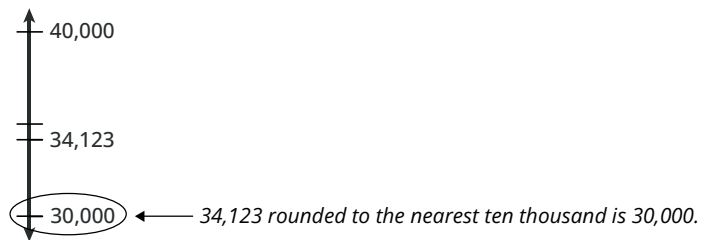
Compatible numbers

$$106 + 27 \approx 100 + 30$$

Expanded notation: an expression that is a sum of multiplication expressions, each representing the value of one digit as the product of that digit and a place value unit

$$(9 \times 10,000) + (5 \times 100) + (2 \times 10) + (3 \times 1)$$

Rounding (*Redondear*): approximating the value of a given number (This example is shown on a vertical number line.)



Standard form (*Forma estandarizada*): a number written with only digits (e.g., 90,523)

Word form: a number written using only words (e.g., ninety thousand, five hundred twenty-three)

Models

Place Value Chart

billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

Strip Diagram

