



Grade 4 Unit 1

Whole Numbers, Place Value and Rounding In Computation

Volume 1 Issue 1

References

Helpful Links:

<http://www.gamequarium.com/placevalue.html>

Math Grade 4

Textbook Connection:

Ch. 1, Lessons 1-6; Ch. 2, Lessons 2-9; Ch. 13 Lessons 1-2

Textbook Online:

<http://connected.mcgraw-hill.com/connected/login.do>

Student User ID:
ccsd(student ID)
Password: cobbmath1

Symbols

+ addition

- subtraction

Dear Parents,

Welcome to the new school year! We are eager to work with you and your students as we learn new mathematical concepts. Your student's math class is calling for students to be actively engaged in doing math in order to learn math. In the classroom, students will frequently work on tasks and activities to discover and apply mathematical thinking. Students will be expected to explain or justify their answers and to write clearly and properly. Your students will receive a consumable My Math textbook and online access from their teacher.

Concepts Students will Use and Understand

- Read and write multi-digit numbers in numerals, number names and expanded form.
- Round multi-digit numbers to any place.
- Compare rounded multi-digit numbers and express their relationship using $>$, $<$, or $=$.
- Fluently add and subtract multi-digit whole numbers.
- Represent problems using equations.
- Solve word problems including those about distance, time, volume, mass and money.
- Represent measurement quantities.
- Use perimeter formulas for rectangles.

Vocabulary

digit: any of the numerals from 0-9

place value: value of a digit according to its place in a number

equation: mathematical expression where one part is equal to another part

expression: numbers and symbols with no equal sign

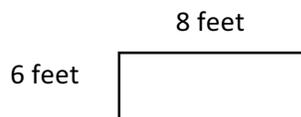
perimeter: the distance around or the border of a 2D shape

Example 1

How is the 2 in the number 8,286 similar to and different from the 2 in the number 8,528?

Example 2

Mr. Smith is building a fence around his rectangular garden. If the length of the garden is 8 feet and the width is 6 feet, how much fencing does Mr. Smith need to buy?



$$2 (\text{length} + \text{width}) = \text{perimeter}$$

$$2 (8 \text{ feet} + 6 \text{ feet}) = \text{perimeter}$$

$$2 (14 \text{ feet}) = \text{perimeter}$$

$$28 \text{ feet} = \text{perimeter}$$

Mr. Smith needs 28 feet of fencing to enclose the garden.

Example 3

A pound of apples costs \$2. Rachel bought 3 pounds of apples. If she gave the clerk a \$10 bill, how much change will she get back?

Possible Solution:

If Rachel bought 3 pounds of apples at \$2 a pound, she paid a total of \$6 for the apples. If she gave the clerk a ten dollar bill, I can subtract the total cost of \$6 from ten dollars to find how much change she received.

$$\$2 + \$2 + \$2 = \$6 \text{ (total cost of apples)}$$

$$\$10 - \$6 = \$4 \text{ (change received)}$$

Rachel got \$4 back in change.

Example 4

Students should be able to explain why the algorithm works.

Example:

$$\begin{array}{r} 3892 \\ + 1567 \\ \hline \end{array}$$

Student explanation for this problem:

1. Two ones plus seven ones is nine ones.
 2. Nine tens plus six tens is 15 tens.
 3. I am going to write down five tens and think of the 10 tens as one more hundred. *(Denotes with a 1 above the hundreds column)*
 4. Eight hundreds plus five hundreds plus the extra hundred from adding the tens is 14 hundreds.
 5. I am going to write the four hundreds and think of the 10 hundreds as one more 1000. *(Denotes with a 1 above the thousands column)*
 6. Three thousands plus one thousand plus the extra thousand from the hundreds is five thousand.
-

Activities at Home

- Before a car trip, ask your child to read the odometer. Write the number down. When you reach the new destination have your child read the odometer again and to subtract to find the distance traveled.
 - Give your child an imaginary amount of money to spend at a store. Let them look through a catalog or ad to find items he/she can purchase with that amount of money. Have them arrange the items in order from most expensive to least expensive. Ask them to find the total amount of money they spent on their items.
 - Try to always find a way to incorporate “real world” word problems.
 - Try to incorporate your child finding perimeter of rooms in your home.
-