



MATH NEWS



Grade 4, Module 1, Topic A

4th Grade Math

Module 1: Place Value of Multi-Digit Whole Numbers

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 1 of Eureka Math (Engage New York) covers place value, rounding, and algorithms for addition and subtraction.

OBJECTIVES OF TOPIC A

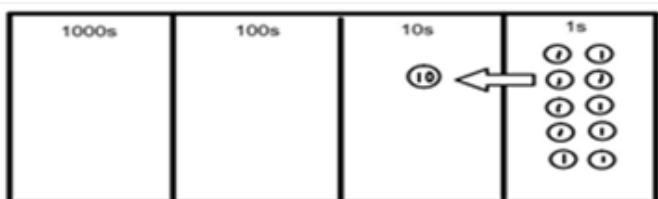
- ▶ Interpret a multiplication equation as a comparison
- ▶ Recognize a digit represents 10 times the value of what it represents in the place to its right.
- ▶ Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units
- ▶ Read and write multi-digit numbers using base ten numerals, number names, and expanded form

Focus Area ▶ Topic A: Place Value of Multi-Digit Whole Numbers Place Value Charts

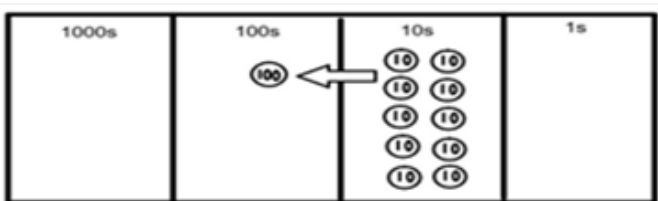
Students will use the place value chart to demonstrate every time we get 10 we bundle and make a bigger unit.

→ 10 ones make 1 ten → 10 times 1 one is 1 ten or 10 ones
We say 1 ten is 10 times as many as 1 one.

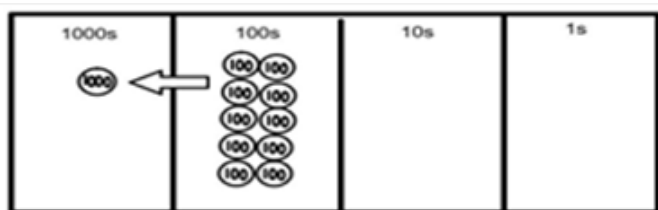
$$1 \text{ ten} = 10 \times 1 \text{ one}$$



$$1 \text{ hundred} = 10 \times 1 \text{ ten}$$



$$1 \text{ thousand} = 10 \times 1 \text{ hundred}$$



Focus Area ▶ Topic A: Place Value of Multi-Digit Whole Numbers



Words to Know:

Digit - a numeral between 0 and 9

Place value - the numerical value that a digit has by virtue of its position in a number

Bundling, renaming, regrouping, trading - exchanging 10 ones for 1 ten, 10 tens for 1 hundred

Unbundling, renaming, regrouping, trading - exchanging 1 ten for 10 ones, 1 hundred for 10 tens

Standard form - a number written in the format: 135

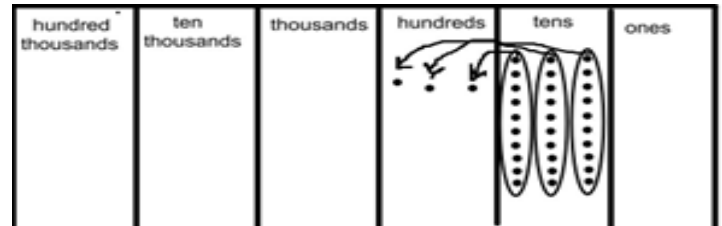
Expanded form - addition sentence with the value of each digit written out e.g., $100 + 30 + 5 = 135$

Word form - a number written out in words as in 135 → one hundred thirty-five


Multiplication and Division with Place Value Charts

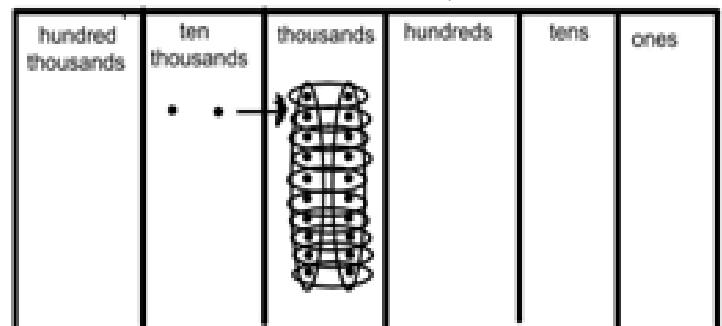
Students will multiply multiple copies of one unit or more units by 10 and divide to reverse the process.

10 times as many as 3 tens is 30 tens or 3 hundreds



$$10 \times 3 \text{ tens} = 30 \text{ tens} = 3 \text{ hundreds}$$

In the next example we will divide 20,000 by 10. We begin by drawing 2 dots to show our 2 ten thousands that make up our 20,000. Now we can unbundle each and show 20 dots in the thousands place. Since we are dividing by 10, we create 10 groups like this → . In each group we have 2 dots or 2 thousands. So, 20 thousands divided by 10 is 2 thousand.



$$20,000 \div 10 = 2,000$$

