



Dear Fourth Grade Families,

In Unit 3, students will work on the following fourth grade Common Core standards in the domains of Number & Operation in Base Ten (NBT) and Operations & Algebraic Thinking (OA):

4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
4.OA.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
4.OA.4	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
4.OA.5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i>
4.NBT.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division</i>
4.NBT.6	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

In Grade 4, students are still developing a concept of division. The strategies and models they learn in this unit will set a strong foundation for future math work.

Need a review? Check out our lesson videos on-line!

swunmath.com/student-videos

If you don't know the class's special name, ask your child's teacher.

We encourage you to talk with your child daily about what was learned in math class.

Thank you for your support!

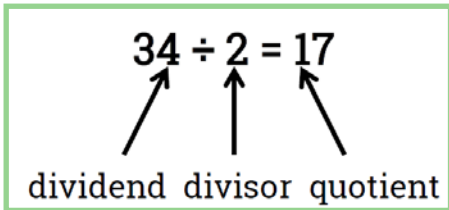


Unit 3 Concepts:

- Multiplication and division: Products of 10
- Division with and without remainders, using a variety of strategies and models
- Division Patterns Function Tables
- Division through Word Problems

Unit 3 Vocabulary:

- Bundle/unbundle
- Compose/decompose
- Place value
- Expanded notation
- Dividend
- Divisor
- Quotient
- Remainder



Ask questions like these to help your child become a productive mathematical thinker:

- How do numbers change when they are multiplied by 10? 100?
- How do numbers change when they are divided by 10? 100?
- Tell me about the area model for division. How does it help you conceptualize what's happening when you divide?
- You learned about decomposing numbers a long time ago. How does that help you divide using expanded notation?
- How could you solve a division problem using the base ten model?
- Of all of the strategies and models you've learned to help you conceptualize division, which works the best for you. Why?
- How do these strategies and models help you solve division problems more efficiently?
- Give me an example of a real-world situation in which a pattern allowed you to use division to solve a problem.
- What key words have you learned that signal division is the way to solve a problem?

Area model

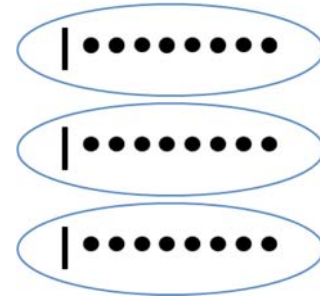
$$936 \div 6 =$$

	? hundreds	+ ? tens	+ ? ones
6	936		

	100	+ 50	+ 6
6	936	336	36
	- 600	- 300	- 36
	336	36	0

Solve using the Dealing Strategy

Tommy has 3 dogs. He has 54 treats to share equally among the three dogs. Tommy's sister, Tamara, gave her favorite dog an extra 12 treats. How many treats did Tamara's favorite dog get in all?



$$54 \div 3 = 18$$

Tommy gave each dog 18 treats. But Tamara gave her favorite dog 12 more treats.

$$18 + 12 = 30$$

Tamara's favorite dog got 30 treats in all.