



Common Core Math Newsletter

4th Grade Unit 1: Numbers and Operations

In this unit, students will illustrate, explain, and calculate multiplication of multi-digit numbers and illustrate, explain, and calculate long division with single digit divisors and remainders.

Standards

4.NBT.5

- Use place value understanding and properties of operations to perform multi-digit arithmetic
- Multiply a whole number of up to four digits by a one-digit whole number
- Multiply two two-digit numbers
- Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models

4.NBT.6

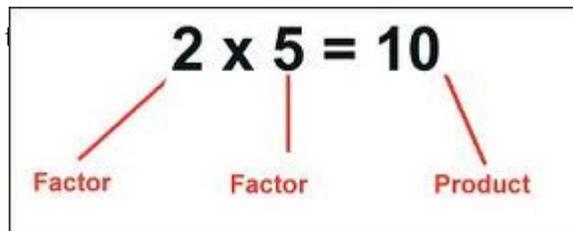
- Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors
- Use strategies based on place value, the properties of operations, and/or the relationship between multiplication and division
- Illustrate and explain the calculation by using equations, rectangular

Vocabulary

factor

each of the two or more numbers in a product

product



multiples

the product of the number and a counting number
(example: multiples of 2 are 2, 4, 6, 8...)

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Vocabulary (cont'd.)

prime numbers

Prime Numbers

A number which only has two factors - itself and 1.

The first ten prime numbers are:

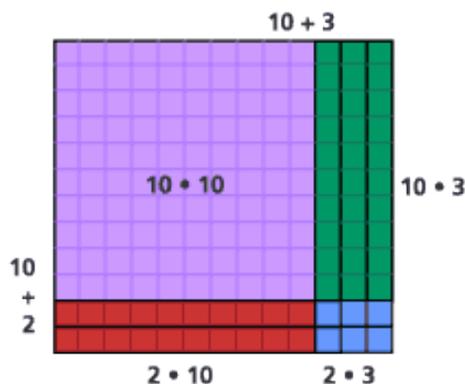
2 3 5 7 11 13 17 19 23 29

rectangular array

an arrangement of objects into rows and columns
(example: 20 pencils arranged in 4 rows of 5 pencils each)



area models



$$\begin{array}{r}
 13 \\
 \cdot 12 \\
 \hline
 6 = 2 \cdot 3 \\
 20 = 2 \cdot 10 \\
 30 = 10 \cdot 3 \\
 \hline
 100 = 10 \cdot 10 \\
 156
 \end{array}$$

$$13 \times 12 = 156$$

dividend

the number in division that is being divided

divisor

the number that divides another number, the *dividend*

quotient

the answer to a division problem

remainder

an amount left over when one number is divided by another number (example: $16 \div 3 = 5 \text{ R}1$, the remainder is 1)

$$\begin{array}{r}
 \text{quotient} \rightarrow 5 \\
 \text{divisor} \rightarrow 3 \overline{) 16} \\
 \text{dividend} \nearrow 15 \\
 \hline
 \text{remainder} \rightarrow 1
 \end{array}$$



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Additional Resources

IXL.com Topics:

- Multiplication
- Division
- Number Sense
- Addition
- Subtraction

LearnZillion.com Videos:

- <https://learnzillion.com/lessons/1875>
 - Quick Code LZ1875
- <https://learnzillion.com/lessons/1482-divide-twodigit-dividends-using-friendly-multiples>
 - Quick Code LZ1482

Be sure to look to the left of the video to see other lessons on the standard.