

### + How you can help at home:

- Become familiar with the area model, a different method of multiplying than you may have learned
- Continue to review the place value system with your student
- Consider reading children's literature with a math focus like *The Great Divide*
- Discuss mathematical patterns, such as  $5 \times 9$ ,  $5 \times 90$ ,  $50 \times 90$ ,  $50 \times 900$ , etc.

Students will learn how to determine if a number is prime or composite by looking for factor pairs in the number.

Factor Pairs for 35	
1	35
5	7

### Key Words to Know

#### Number Properties

Associative Property:  $3 \times (4 \times 8) = (3 \times 4) \times 8$

Distributive Property:  $6 \times (3 + 5) = (6 \times 3) + (6 \times 5)$

Partial Product:  
 $24 \times 6 = (20 \times 6) + (4 \times 6)$

#### Mathematical Terms

Prime Number - positive integer only having factors of one and itself

Composite Number - positive integer having three or more factors

Divisor - the number by which another number is divided

Remainder - the number left over when one integer is divided by another

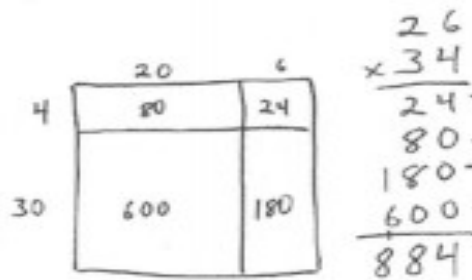
Algorithm - steps for base ten computations with the four operations

Area - the amount of two dimensional space in a bounded region

Perimeter - length of a continuous line around a geometric figure

#### Key Standards:

- Use the four operations (+, -, x, /) with whole numbers to solve problems
- Gain familiarity with factors and multiples
- Use place value understanding and properties of operations to perform multi-digit arithmetic
- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit



## Spotlight on Math Models:

### Area Models

You will often see this mathematical representation in *A Story of Units*.

*A Story of Units* has several key mathematical “models” that will be used throughout a student’s elementary years.

Students began in earlier grades to build arrays, showing multiplication and division as a series of rows and columns. In 4<sup>th</sup> grade, they learn to show these types of problems as an area model.

As students move through the grades, the area model will be a powerful tool that can take them all the way into algebra and beyond. One of the goals in *A Story of Units* is to first give students concrete experiences with mathematical concepts, and then build slowly toward more abstract representations of those concepts. The area model is a tool that helps students to make that important leap.

Sample from the curriculum:

Use an area model to represent  $50 \times 40$ .

(Example taken from Lesson 6, Module 3)

