

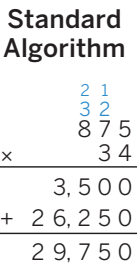
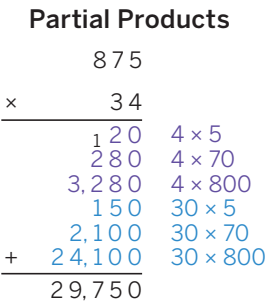
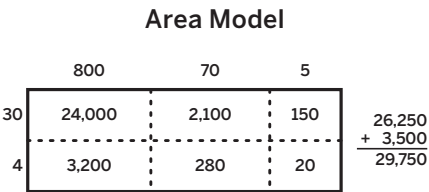
# Mathematical Background

Here is an overview of the content your students will learn in this unit.

## Multi-Digit Multiplication and Division and Financial Literacy

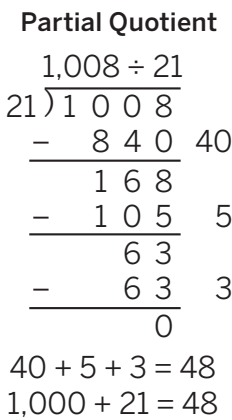
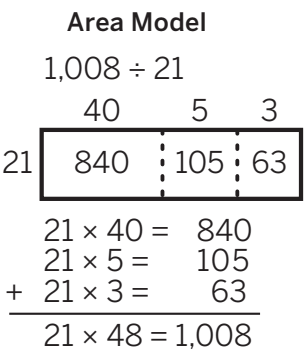
### Multiplying multi-digit whole numbers TEKS 5.3.A, 5.3.B

- Multi-digit multiplication can be performed by using:
  - » Area models: a calculation that uses decomposed factors by place value.
  - » Partial products: a method of performing multiplication by place value, written vertically.
  - » Standard algorithm: a condensed way to multiply by each place value



### Dividing multi-digit whole numbers by two-digit divisors TEKS 5.3.C

- Area models connect multiplication to division.
  - » By multiplying and subtracting the total from the dividend, the quotient can be calculated using familiar numbers.
- Partial quotient strategies help logically estimate division answers and introduce the standard algorithm.
  - » Multiplication facts can be repeated to subtract away from the total dividend.



### Using parentheses in numerical expressions and equations TEKS 5.4.B

- Parentheses are grouping symbols that can be used in expressions and equations to indicate what is evaluated first.
- Expressions can be compared without being evaluated by interrupting the grouping symbols and operations.

- $3 \times (15 - 8) > 3 \times (12 - 3)$
- Both expressions show 3 times an amount.
  - $12 - 3$  is greater than  $15 - 8$ .
  - So, the value of  $3 \times (12 - 3)$  is greater.

### Developing systems for managing financial resources TEKS 5.10.D, 5.10.E

- Developing a system for keeping and using **financial records** helps lead to responsible financial decisions.
  - » If financial records show that *expenses* are exceeding *income*, actions can be taken to create a **balanced budget**.

Keeping a record can be beneficial in making financial decisions so that you can see where you are spending money, how much money you are making, and how much you have left to spend.

## Unit Investigation

**Lesson 1** is the Unit Investigation. Students use estimation strategies to determine factors with a product close to a target number to build curiosity and apply their own knowledge in a variety of ways. Use the **Caregiver Connection** to help students continue to explore the math they will see in the unit.

### Caregiver Connection

Students may enjoy playing a factors and product game at home by choosing their own three or four-digit target value. They can ask others for expressions and tell them whether their estimate is too high, too low, or just right.