

Develop Critical Thinking and Reasoning with Math

Prepare students for future math learning by first solidifying their understanding of elementary math concepts and then introducing them to key middle school math concepts. Students will learn not only how math principles work but also how to think critically about those principles and construct arguments so they can use the principles in real-world situations.

How We Teach It

Modeling

Students learn how to use mathematical models to build understanding of how quantities relate to structure in the real world.

STEM

Students will find a variety of STEM lessons that follow the engineering design process to teach them how to use math to solve real-world problems.

Arguments and Reasoning

Students will practice constructing arguments and explaining the reasoning processes they use to solve math problems. As they collaborate with their peers, they will develop an understanding of how and why math works and will learn how to critique others' reasoning as well as their own.

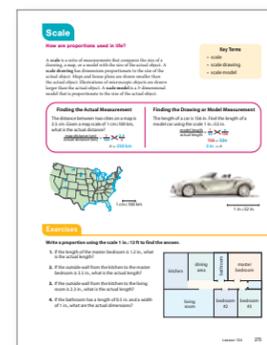
Differentiated Learning

Teachers will find suggestions for providing students further help and alternative methods for presenting lesson material throughout the course.

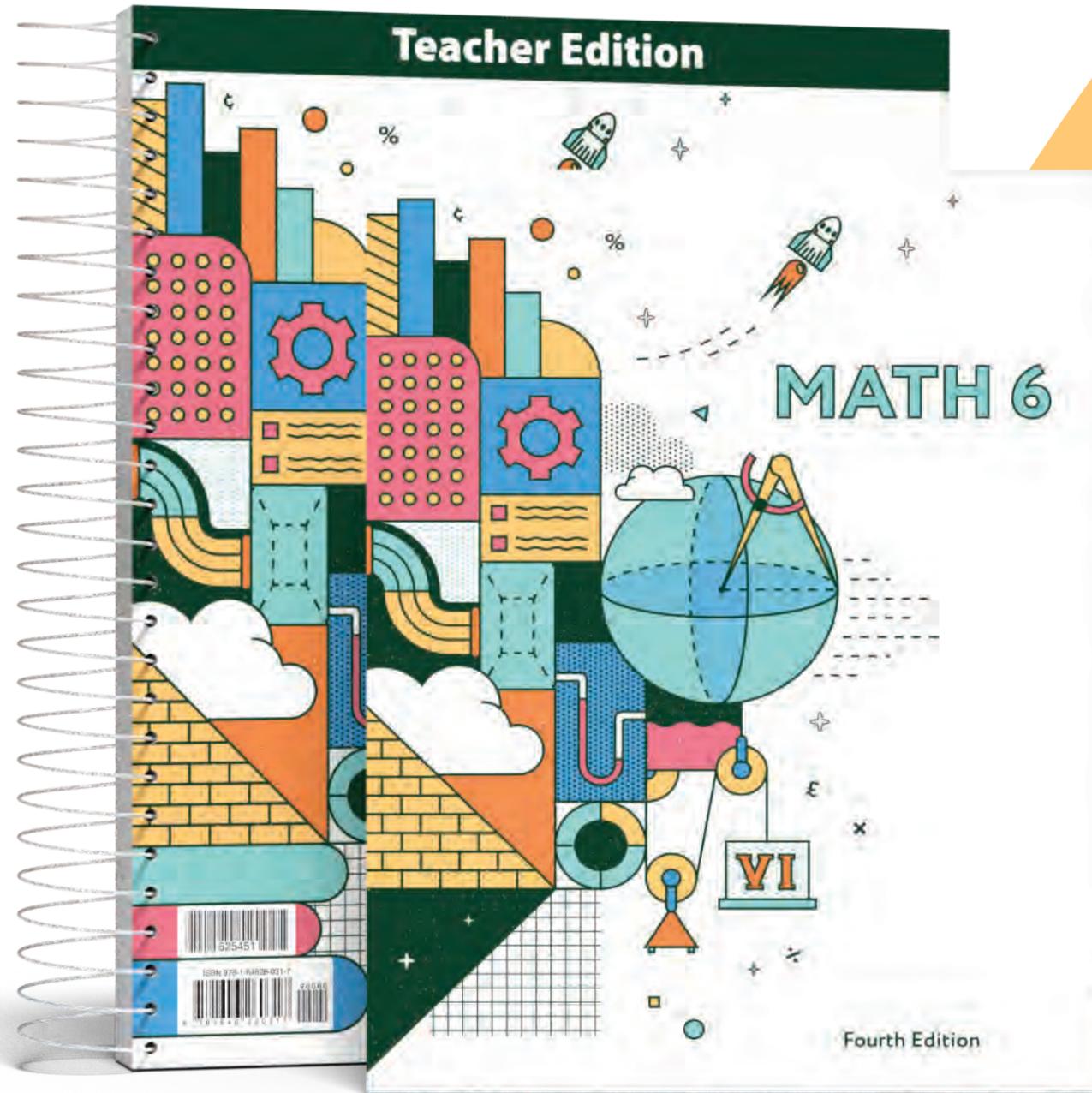
STEM Projects



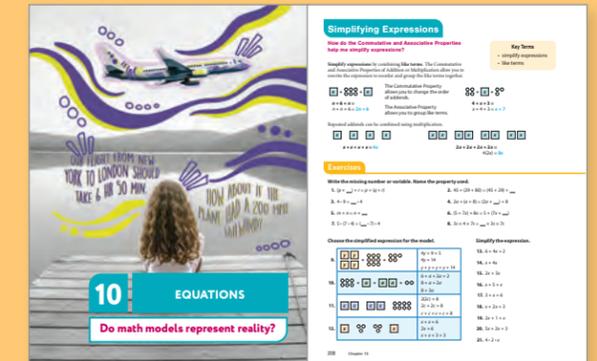
Modeling



Informative Sidebars



Materials



Student Edition

The student edition provides practice and direct application for all math concepts students will learn. Students will use what they have learned in lessons to think critically about how to use math and how to reason with math. Students will find STEM lessons that follow the engineering design process as well as a variety of engaging illustrations and pictures that help them better understand how to use math to solve real-world problems.

Teacher Edition

The teacher edition is a two-volume set that equips educators with 6th grade math lesson plans, teaching strategies, and a variety of other resources for creating a successful learning environment for students. Lessons are organized clearly and logically to support the educator in teaching students math concepts and to guide them in developing a biblical worldview of math.

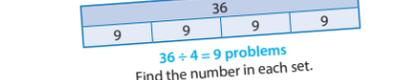
Also available: assessments and assessments answer key

Division

Why am I able to do division?

Division is the **inverse operation** of multiplication. Multiplication joins equal sets to find the total. Division equally distributes the total into a given number of sets or into sets of a given number.

Mrs. Markham has 36 math problems for students to solve. She distributed the problems evenly among 4 students. How many problems did each student receive?



$36 \div 4 = 9$ The **dividend** is 36, the **divisor** is 4, and the **quotient** is 9.

Divide 128 into 5 sets.
1. Rename 1 hundred as 10 tens.
2. **Divide 12 tens by 5.**
3. Rename 2 tens as 20 ones.
4. **Divide 28 ones by 5.**

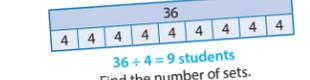
There are 25 in each of 5 sets with 3 remaining. Use multiplication to **check** the division problem.

$$\begin{array}{r} 25 \\ \times 5 \\ \hline 125 \\ + 3 \\ \hline \end{array}$$

Key Terms

- inverse operation
- dividend
- divisor
- quotient
- checking division with multiplication

Mrs. Markham has 36 math problems for students to solve. If she gives 4 problems to each student, how many students will receive problems?



Find the number of sets.
 $36 \div 4 = 9$ students

$$\begin{array}{r} 25 \\ \times 5 \\ \hline 125 \\ + 3 \\ \hline \end{array}$$

How would you picture this equation if you were dividing 128 into sets of 5?

$$128 \div 5 = 25 \text{ r}3$$

