

Eureka Math Parent Guide

A GUIDE TO SUPPORT PARENTS AS THEY WORK WITH THEIR STUDENTS IN MATH.

GRADE 5
MODULE 1

GRADE FOCUS

Fifth grade mathematics is about (1) developing fluency with addition and subtraction of fractions, (2) understanding multiplication and division of fractions in limited cases, (3) extending division to two-digit divisors, (4) developing fluency with whole number and decimal operations to the hundredths, and (5) developing understanding of volume.

» Module 1: Place Value and Decimal Fractions

- Module 2: Multi-Digit Whole Number and Decimal Fraction Operations
- Module 3: Addition and Subtraction of Fractions
- Module 4: Multiplication and Division of Fractions and Decimal Fractions
- Module 5: Addition and Multiplication with Volume and Area
- Module 6: Problem Solving with the Coordinate Plane

LET'S CHECK IT OUT!

MODULE 1 FOCUS

In this first module of Grade 5, we will extend 4th grade place value work to multi-digit numbers with decimals to the thousandths place. Students will learn the pattern that one-tenth times any digit on the place value chart moves it one place value to the right. They will also perform decimal operations to the hundredths place.

MORE SPECIFICALLY, CHILDREN WILL LEARN HOW TO:

- Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left
- Explain patterns in the number of zeros of the product when multiplying whole numbers by powers of 10
- Read, write, and compare decimals to thousandths
- Use place value understanding to round decimals to any place
- Add, subtract, multiply, and divide decimals to hundredths
- Convert among different-sized standard measurement units within a given measurement system

TOPIC OVERVIEW

Topics are the lessons within a module that help children master the skills above. Here are the lessons that will guide your child through Module 1:

- Topic A: Multiplicative Patterns on the Place Value Chart
- Topic B: Decimal Fractions and Place Value Patterns
- Topic C: Place Value and Rounding Decimal Fractions
- Topic D: Adding and Subtracting Decimals
- Topic E: Multiplying Decimals
- Topic F: Dividing Decimals

WORDS TO KNOW

- **Thousandths:** related to place value (we have already studied tenths and hundredths)
- **Exponents:** how many times a number is to be used in a multiplication sentence, e.g. $3^2 = 3 \times 3$ where 2 is the exponent
- **Millimeter:** a metric unit of length equal to one thousandth of a meter
- **Equation:** statement that two mathematical expressions have the same value, indicated by use of the symbol $=$; e.g. $12 = 4 \times 2 + 4$
- **Place value:** the numerical value that a digit has by virtue of its position in a number
- **Standard form:** a number written in the format, e.g. 135
- **Expanded form:** e.g. $100 + 30 + 5 = 135$
- **Unit form:** e.g. $3.21 = 3 \text{ ones } 2 \text{ tenths } 1 \text{ hundredth}$
- **Word form:** e.g. one hundred thirty-five

SAMPLE PROBLEMS

SAMPLE 1

In Module 1, students will make extensive use of place value tools, as they have done in earlier grade levels. Now, however, students work with the extended place value chart, which includes place values to the thousandths.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
1 ÷ 10							.			
	1						.			

(Above) Place Value Chart, with the thousandths place (Below) 27.346 on the chart

Tens	Ones	.	Tenths	Hundredths	Thousandths
2	7	.	3	4	6

SAMPLE 2

Teacher says: "Subtract 2 ones 3 thousandths from 7 ones 5 thousandths."

Students use place value chart to solve.

ones	tenths	hundredths	thousandths	
••••• //			••//	7.005
				-2.003
5	0	0	2	<u>5.002</u>

HOW YOU CAN HELP AT HOME

- When given a multi-digit number with decimal digits, ask your student what each digit represents (e.g., "What is the value of the 4 in the number 37.346?")
- Help practice writing numbers correctly by saying multi-digit decimal numbers and having your student write them down. Students can create their own place value charts to help.