EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

Lessons 1 through 4 focus on understanding **place value** and representing numbers from millions to thousandths on a **place value chart.**

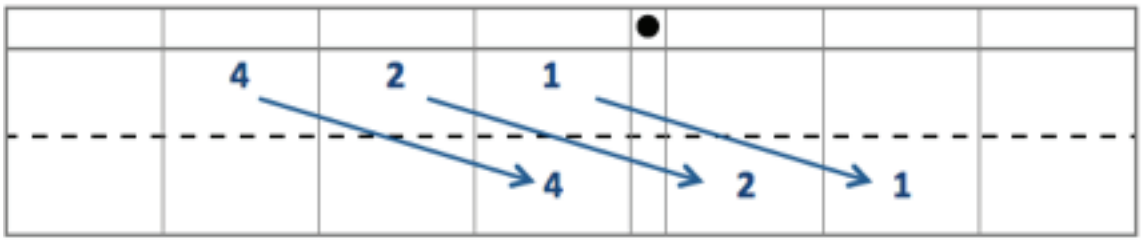
You can expect to see homework that asks your child to do the following:

- Multiply and divide by 10, 100, and 1,000 using the place value chart (as shown in the sample problem below).
- Write numbers in **exponential form** (e.g., $10{,}000 = 10^4$), and write exponential numbers in **standard form** (e.g., $9 \times 10^3 = 9{,}000$).
- Use knowledge of measurements (e.g., 3 m = 300 cm) and exponential form (e.g., $3 \times 10^2 = 300$) to solve problems.

SAMPLE PROBLEM *(From Lessons 1–4)*

Use the place value chart and arrows to show how the value of each digit in the number 421 changes when it is divided by 100.

a. $421 \div 100 = 4.21$



b. Write 100 in exponential form.

$100 = 10^2$

c. Convert 421 millimeters to meters, and write an equation with an exponent.

421 mm = 0.421 m

$421 \div 10^3 = 0.421$

LEARN MORE by viewing a video about using place value disks to solve multiplication problems. Visit eurmath.link/multiplication-pvdisks.

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Practice drawing and labeling a place value chart (to the thousandths). Take turns drawing disks on the chart. Challenge each other to say the name of the number that was drawn.
- Practice metric conversions with your child in the kitchen. For example, measure water, juice, or milk in milliliters and liters (1 L = 1,000 mL). Measure rice, beans, oatmeal, or sugar in grams and kilograms (1 kg = 1,000 g). Measure the kitchen counter, refrigerator, or walls in millimeters, centimeters, and meters (1 m = 100 cm and 1 m = 1,000 mm).
- Play the "Exponent" dice game with your child.
  1. Your child rolls a die to represent an exponent. The base number is 10.
  2. You ask your child to say the number in standard form.

  For example, your child rolls a 4. You ask, "Say 10^4 in standard form." He says, "10,000."

TERMS

Exponential form: A numeric form involving exponents (e.g., the exponential form of 1,000 is $10^{3)}$**.**

Place value: The value of a given digit based on its position in a number (e.g., the place value of the digit 2 in 235 is 200 (2 hundreds)).

Standard form: A way to write numbers using the digits 0–9 (e.g., the standard form of seventy-two and forty-eight thousandths is 72.048).

MODELS

Place Value Chart

1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
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