



Grade 5 Unit 2: Decimal Place Value Relationships

Frequently Asked Questions

What are the main ideas in this unit?

In Grade 5 Unit 2, students dive deep into understanding decimal numbers, specifically up to the thousandths place. The core ideas involve exploring the relationships between tenths, hundredths, and thousandths, and using these relationships to compare, order, and round decimals. Students learn to use tools like number lines and place value charts to visualize decimals and truly grasp their magnitude and position. By the end of the unit, they'll be confident in comparing and ordering decimals with different numbers of digits, using mathematical symbols correctly, and applying rounding skills to various decimal places in real-world situations.

What have students previously learned that will support them in this unit?

Students entering Grade 5 Unit 2 will build upon their prior knowledge from Grade 4 Unit 1, Section C. In that unit, they developed a strong understanding of place value relationships with multi-digit whole numbers up to 1,000,000. They learned to place these numbers on number lines, compare and order them, and round them to various multiples of 10, 100, 1,000, 10,000, and 100,000. This foundational understanding of place value and rounding for whole numbers will be incredibly helpful as they transition to applying these same concepts to decimals.

What representations are used in this unit?

Throughout this unit, students will primarily use number lines and place value charts. Number lines are crucial for visually representing decimals, understanding their magnitude, and determining their position relative to other numbers. They are especially useful for comparing and ordering decimals, and for visualizing the rounding process. Place value charts help students break down the value of each digit in a decimal number, which is essential for understanding how a digit's position affects the overall value and for expressing how values change when digits move.

What specific skills or methods are addressed in this unit?

This unit focuses on several key skills and methods related to decimals. Students will learn to compare and order decimals up to the thousandths place, paying close attention to the value of each digit. They will practice using mathematical symbols ($>$, $<$, $=$) to accurately record their comparisons. Another major skill is expressing how the value of a digit in a decimal number changes when it moves one or more places to the left or right within the number. Finally, students will develop the ability to round decimals to the nearest whole number, tenth, hundredth, or thousandth, based on the value of the digits in each place.

What can I do to support my student at home?

You can support your student at home by engaging in conversations about decimals in everyday life. For example, when you see prices in a store, talk about what the digits after the decimal point represent. If you're measuring ingredients for a recipe, discuss how small amounts are represented by decimals. You can also create simple games where you write down a few decimal numbers and have your student practice ordering them from least to greatest or greatest to least. Encourage them to explain their reasoning using the vocabulary they're learning in class, like "tenths place" or "hundredths place." Visual aids, like drawing a number line together to compare two decimals, can also be very helpful!

How is this content connected to the real world?

Decimal numbers are all around us! Think about money – prices are almost always expressed with decimals. When you go to the gas station, the price per gallon is a decimal. Measurements, whether it's the length of something, the weight of an item, or even the time in a race, often involve decimals for precision. Scientists, engineers, and even chefs use decimals constantly. Understanding decimals helps us make sense of our finances, understand precise measurements, and even interpret statistics and data that are presented in decimal form. This unit helps students build a strong foundation for understanding and using these important numbers in their daily lives.

