

Introduction to Decimal Notation

Read the following introduction and answer the questions that follow:

Understanding place value and decimal notation is a fundamental concept in mathematics that builds upon the understanding of whole numbers. This worksheet is designed to help students develop a deep understanding of decimal notation and its relationship to place value.

1. What is the main concept that this worksheet is designed to help students understand?

2. What is the relationship between decimal notation and place value?

Representing Decimal Numbers

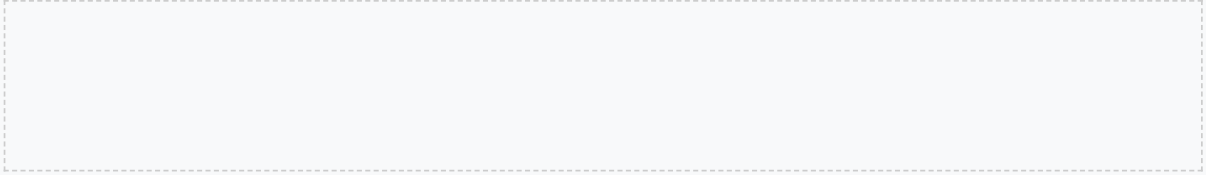
Complete the following exercises to practice representing decimal numbers:

1. Write the decimal number 4.25 in words.

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2. Represent the fraction $\frac{3}{4}$ as a decimal number.

3. Write the decimal number 2.75 in expanded form.



Reading Decimal Numbers

Complete the following exercises to practice reading decimal numbers:

1. Read the decimal number 1.9 aloud.

2. Write the decimal number 3.14 in words.

3. Identify the place value of the digit 5 in the decimal number 4.56.

Writing Decimal Numbers

Complete the following exercises to practice writing decimal numbers:

1. Write the word "two and five-tenths" as a decimal number.

2. Represent the fraction $\frac{2}{5}$ as a decimal number.

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3. Write the decimal number 0.45 in words.

Comparing Decimal Numbers

Complete the following exercises to practice comparing decimal numbers:

1. Compare the decimal numbers 2.5 and 2.3. Which one is greater?

2. Order the decimal numbers 1.2, 1.5, and 1.8 from least to greatest.

3. Determine which decimal number is equivalent to 0.5: $\frac{1}{2}$ or $\frac{2}{4}$.

Real-World Applications

Complete the following exercises to practice applying decimal numbers to real-world scenarios:

1. A book costs \$12.99. If a 10% discount is applied, how much will you pay for the book?

2. A recipe calls for 2.5 cups of flour. If you want to make half the recipe, how much flour will you need?

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3. A water tank can hold 450.25 liters of water. If 175.5 liters of water are already in the tank, how much more water can be added?

Decimal Operations

Complete the following exercises to practice performing decimal operations:

1. Add 2.1 and 3.4.

2. Subtract 1.7 from 4.2.

3. Multiply 2.5 by 3.1.

Word Problems

Complete the following exercises to practice applying decimal numbers to word problems:

1. A car travels 234.5 miles in 4.5 hours. How many miles does it travel per hour?

2. A box of pencils costs \$4.99. If you buy 3 boxes, how much will you pay in total?

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3. A room is 4.5 meters long. If a bookshelf is 1.2 meters long, how many bookshelves can fit in the room?

Conclusion

Read the following conclusion and answer the questions that follow:

Understanding place value and decimal notation is a critical concept in mathematics. By completing these exercises, students will develop a deep understanding of decimal notation and its relationship to place value, as well as its applications in real-world scenarios.

1. What is the main concept that this worksheet is designed to help students understand?

2. What is the relationship between decimal notation and place value?

