

# Unit 12

## Family Letter

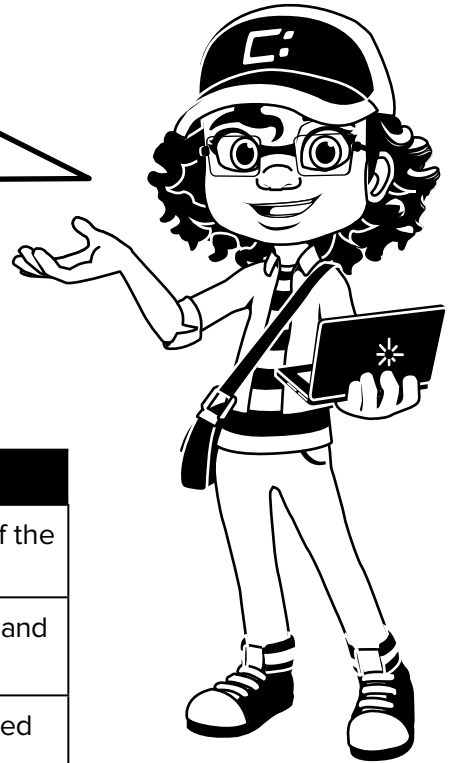
Dear Family,

In this unit, *Decimal Fractions*, your child will learn how to represent tenths and hundredths using decimals, compare decimals, and add fractions.

### STEM Career Kid for this Unit

**Hi, I'm Grace.**

I want to be a computer programmer. I will use math in my job when I write codes for games. Students will see how I can write fractions as decimals, which is important in my work.



### What math terms will your child use?

Term	Student Understanding
decimal	a number with one or more digits to the right of the decimal point, such as 8.37 or 0.05
decimal point	a symbol that separates the whole-number parts and the fractional parts of a number
tenth	a tenth represents 1 part when one whole is divided into 10 equal parts
hundredth	a hundredth represents 1 part when one whole is divided into 100 equal parts

### What can your child do at home?

Help your child practice converting between decimals and fractions with tenths and hundredths. Write fractions or decimals on several index cards, one number per card. Create a deck with the cards and have your child write the other form (decimal or fraction) of the number on the card. If he or she is correct, remove the card from the deck. If incorrect, place the card in the back of the deck for more practice.



# What Will Students Learn in this Unit?

## Tenths and Hundredths

Your child will learn how to represent tenths and hundredths as fractions and as decimals. A tenth represents 1 part when the whole is divided into 10 equal parts and a hundredth represents 1 part when the whole is divided into 100 equal parts. Each tenth has a value of  $\frac{1}{10}$  or 0.1 and each hundredth has a value of  $\frac{1}{100}$  or 0.01. Students will learn how to write a fraction with a denominator of 10 or 100 as a decimal. For example,  $\frac{4}{10} = 0.4$ ,  $1\frac{2}{10} = 1.2$ ,  $0.05 = \frac{5}{100}$  and  $1.24 = 1\frac{24}{100}$ . It is important for students to understand that 10 hundredths is the same as 1 tenth.

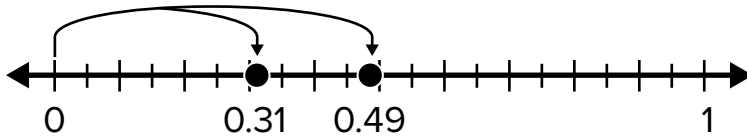
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## Comparing Decimals

Your child will compare two decimals to hundredths using number lines, grids, or fractions. Grids and number lines are a visual representation of the decimals, which helps students with the comparison. However, students are encouraged to use the technique they are most comfortable with.

*Example:*

Write a comparison statement for the numbers 0.31 and 0.49. Justify your comparison using a number line.



0.49 is farther away from 0 than 0.31.

$0.31 < 0.49$  or  $0.49 > 0.31$

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## Adding Fractions

Your child also learns how to find the sum of two fractions with denominators 10 and 100. They first learn how to use an estimate of the sum using benchmark fractions before using grid to find the exact sum. It is important for students to understand that the size of the parts need to be the same before adding.

*Example:*

$$\frac{6}{10} + \frac{23}{100} = ?$$

$$\frac{6}{10} + \frac{23}{100} = \frac{83}{100}$$
$$\frac{60}{100} + \frac{23}{100} = \frac{83}{100}$$

