

Lesson 6: Rounding to Thousandths

☐ Getting Started

You probably remember that using rounded numbers makes working with numbers easier and helps with estimating answers. For example, if you're adding 578 and 712, you can round the addends (the numbers being added together) to the nearest hundred and then use the rounded sum to check your work: $600 + 700 = 1,300$. That means your sum should be close to 1,300. In fact, when we add these numbers, the actual sum is 1,290, which is quite close to 1,300! If, however, you find a sum that isn't close to 1,300, then you will know that you need to add the numbers again because you've done something wrong.

In this lesson, you'll review rounding whole numbers and learn how to round decimal numbers.

Stuff You Need

- Interactive Notebook

Ideas to Think About

- How do you round whole and decimal numbers?

Things to Know

- Round to the nearest whole number means rounding to the ones place.
- Round to the greatest place means rounding to the highest place value showing.

Activities

☐ Activity 1: Rounding Numbers

As you work with rounding decimal numbers, keep in mind that the process is the same for whole numbers and decimal numbers. Watch the following video to review these steps. While the video discusses rounding decimals to the ten-thousandths place, you'll only be rounding numbers as far as the thousandths place. Be sure to pay close attention to what it means to round to the "nearest whole number."

After you've watched the video, fill in the "Rounding Numbers" sheet. You can re-watch and pause the video as needed. When you are done with the sheet, you can place it in your Interactive Notebook for future reference.

**Rounding**

www.beyondthepage.com/link/8462/

Next, use the Rounding Numbers Calculator at the following web link to check your answers at the bottom of the "Rounding Numbers" activity page. Enter the numbers and places in the boxes provided and then click on "Calculate" to check your answer. Correct any wrong answers.

**Rounding Numbers Calculator**

www.beyondthepage.com/link/8463/

Note that the answer will appear on the left, right under the calculator.

☐ **Activity 2: Quiz**

Before taking the quiz, watch the music video at the following web link. It reviews rounding decimals.

**Rounding Decimals Song | Rounding Decimals Rap Music Video**

www.beyondthepage.com/link/12929/

Next, you will complete the "Unit 1 Quiz 2" page. Use scratch paper as needed. Give the page to a parent to check when you have finished.

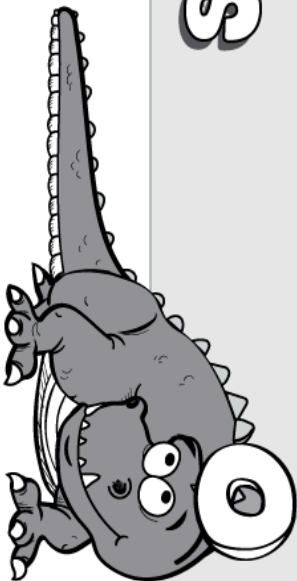
Wrapping Up

Now that you've reviewed and practiced rounding whole numbers and decimals numbers, what do you think is the most difficult step in rounding? What's the most important thing to keep in mind as you round numbers? During the next lesson, you'll begin looking at a way to think about and represent REALLY big numbers.

Learning Gates

Take the [Learning Gates quiz](#) for this lesson.

Rounding Numbers



Directions: Fill in the blanks.

1. Identify the number you're being asked to round to (the target number).
2. Look at the digit to the _____ of the target number.
 - If the number is 0, 1, 2, 3, or 4, the target number _____. This is called rounding _____.
 - If the number is 5, 6, 7, 8, or 9, the target number _____. This is called rounding _____.
3. If the target number is 9 and needs to be rounded up, the target number becomes _____, and the digit to the _____ will _____ by 1.
 - If the directions say, "Round to the nearest whole number," you should round to the _____ place.
 - If the directions say, "Round to the greatest place," you should round to the _____.

Directions: Round each of the following numbers as indicated. Then check your work using the web link provided in the lesson.

3,673	_____	hundreds place	450,619	_____	thousands place	3.47	_____	tenths place
2,990	_____	thousands place	5.912	_____	the nearest whole number	3.912	_____	tenths place
4.526	_____	hundredths place	5,624.99	_____	tens place	43.158	_____	hundredths place
215.13	_____	the nearest whole number						

Unit 1 Quiz 2

Part 1

Instructions: Write **3.485** in each of the possible forms.

Word form: _____

Fraction form: _____

Fraction expanded form: _____

Decimal expanded form: _____

Fraction expanded notation: _____

Decimal expanded notation: _____

Instructions: Write each of the following in number form.

$$(8 \times \frac{1}{10}) + (3 \times \frac{1}{100}) + (2 \times \frac{1}{1000}) = \underline{\hspace{2cm}}$$

$$(4 \times 1) + (5 \times 0.1) + (5 \times 0.01) = \underline{\hspace{2cm}}$$

$$(1 \times 1) + (3 \times \frac{1}{10}) + (0 \times \frac{1}{100}) + (7 \times \frac{1}{1000}) = \underline{\hspace{2cm}}$$

Part 2

Instructions: Circle the statements that are TRUE.

$$1.320 = 1.32$$

$$4.56 > 4.65$$

$$12.155 > 12.105$$

$$0.568 < 0.658$$

$$1.055 > 1.505$$

Instructions: Round the following numbers to the given places.

4.539 _____
tenths place

5,624.99 _____
thousands place

3.852 _____
hundredths place

215.138 _____
hundredths place

43.158 _____
the nearest whole number

Lesson 6: Rounding to Thousandths

Getting Started

? Ideas to Think About

- How do you round whole and decimal numbers?



Things to Know

- Round to the nearest whole number means rounding to the ones place.
- Round to the greatest place means rounding to the highest place value showing.

• Skills

- Use place value understanding to round decimals to any place

Introducing the Lesson

During this lesson, your child will review rounding whole numbers and will learn how to round decimals.

Activities

Activity 1: Rounding Numbers

In this activity, your child watched a video about rounding numbers, including rounding decimal numbers. Then she practiced rounding numbers to different places. The answer key provides the correct responses for the top half of the page; for the bottom of the page, your child checked her work with an online tool. She should store this page in her Interactive Notebook for future reference.

Answer Key:

- Look at the digit to the right of the target number. If the number is 0, 1, 2, 3, or 4, the target number stays the same. This is called rounding down. If the number is 5, 6, 7, 8, or 9, the target number goes up by 1. This is called rounding up.
- If the target number is 9 and needs to be rounded up, the target number changes to 0, and the digit to the left will increase by 1.
- If the directions say, "Round to the nearest whole number," you should round to the ones place.
- If the directions say, "Round to the greatest place," you should round to the highest place value showing.

Activity 2: Quiz

Once your child completes the "Unit 1, Quiz 2" page, check her answers. Allow her to correct any mistakes and encourage her to rewatch the videos from this lesson as needed.

"Unit 1, Quiz 2" Answer Key, Part 1

Word form: three and four hundred eighty-five thousandths

Fraction form: $3\frac{485}{1000}$

Fraction expanded form: $3 + \frac{4}{10} + \frac{8}{100} + \frac{5}{1000}$

Decimal expanded form: $3 + .4 + .08 + .005$

Fraction expanded notation: $(3 \times 1) + (4 \times \frac{1}{10}) + (8 \times \frac{1}{100}) + (5 \times \frac{1}{1000})$

Decimal expanded notation: $(3 \times 1) + (4 \times 0.1) + (8 \times 0.01) + (5 \times 0.001)$

$(8 \times \frac{1}{10}) + (3 \times \frac{1}{100}) + (2 \times \frac{1}{1000}) =$ 0.832

$(4 \times 1) + (5 \times 0.1) + (5 \times 0.01) =$ 4.55

$(1 \times 1) + (3 \times \frac{1}{10}) + (0 \times \frac{1}{100}) + (7 \times \frac{1}{1000}) =$ 1.307

Answer Key (Part 2):

- The following are true:
 - $1.320 = 1.32$
 - $12.155 > 12.105$
 - $0.568 < 0.658$
- Round the following numbers to the given places.
 - 4.539, tenths place (4.5)
 - 5,624.99, thousands place (6,000)
 - 3.852, hundredths place (3.85)
 - 215.138, hundredths place (215.14)
 - 43.158, the nearest whole number (43)

Wrapping Up**Questions to Discuss**

- What are the steps in rounding both whole numbers and decimal numbers? (answers will vary; refer to the answer key in Activity 1 for details)
- What does it mean to round to the nearest whole number? Can you give an example? (it means rounding to the ones place; answers will vary)
- Write 426.728 on a piece of paper, and ask your child to round it to the following places:
 - Tenths (426.7)
 - Nearest whole number (427)
 - Hundredths (426.73)
 - Greatest place (400)

Things to Review

Review the steps for rounding numbers