Math: In-Home Learning April 27th – May 1st

Overview of Week: *This week you will review whole number and decimal place value.*
Rounding of whole numbers and decimals, and estimation. Lastly, Friday is a just for fun day –
online games and a game you can print, if you have access to a printer.

Monday	Tuesday	Wednesday	Thursday	Friday
Whole Number Place Value	Decimal Place Value	Rounding Whole Numbers and Decimals	Estimations	Just for FUN Day!

Monday: Whole Number Place Value

Watch each video and complete online practice

Math › Pre-algebra ›
Arithmetic properties › Place value

▷ Finding place value

▷ Place value tables

✏ Practice: Place value tables

✏ Practice: Identify value of a digit

▷ Writing a number in standard form

▷ Writing a number in expanded form

▷ Writing numbers in words and standard form

✏ Practice: Write whole numbers in expanded form

Khan Academy has a series of videos and practice pages.

▷ **This symbol is for a video.**

✏ **This symbol is for online practice.**

Follow this link to get started.

Complete each video and practice listed on the left side of this page. There are other items on the website, but these are the ones for you to complete.

Place value of whole number is an area you should be comfortable with, but even if you think you've got it go through the work. Have a Growth Mindset that you still could learn something you didn't know before.

Also, there will be times in the video where he uses a "•" in a multiplication equation. That dot is the same as using a X to mean multiplication. Mathematicians use the "•" instead, in algebra. Cool new fact!

Tuesday: Decimal Place Value

Watch videos (Test yourself: count how many times he uses the "and" incorrectly when saying the words. Can you explain the error that is occurring? Sometimes, we do it!)

Khan academy – Decimal Place Value Review

Khan Academy – Decimals in Word Form

Khan Academy – Decimals in Word Form Practice

Khan Academy – Decimals in Expanded Form

Khan Academy – Decimals in Expanded Form Practice

Expanded Form with Decimals (A)
Write each number in expanded form.

224.41

124.59

707.04

685.99

815.54

18.77

137.5

637.55

856.27

494.08

Name : _____   Score : _____

Teacher : _____   Date : _____

Write the Names for the Decimal Numbers.

1)   7.177   _____

2)   6.674   _____

3)   1.130   _____

4)   8.390   _____

5)   2.979   _____

6)   5.759   _____

7)   5.154   _____

8)   4.460   _____

9)   7.580   _____

10)   3.426   _____

Math-Aids.Com

Wednesday: Rounding

Watch videos

Complete worksheet on separate sheet of paper showing your work. (unless you can print)

Math Antics video – Rounding Whole Numbers and Decimals

Khan Academy video – Rounding Whole Numbers

math Antics Worksheets

Name: _____

Date: _____

Rounding Decimals with Guides

RND 3

Instructions: Round each decimal using the procedure you learned in the video. The "target" place has been marked so you know which number place you are rounding to.

1 Round to the nearest tenth.

2 5 . 6 5 8
25.700

2 Round to the nearest thousandth.

1 . 0 8 5 2 5
1.08500

3 Round to the nearest hundredth.

0 . 9 2 1 7
☐.☐☐☐☐

4 Round to the nearest whole number.

2 4 . 8 8
☐☐.☐☐

5 Round to the nearest ten-thousandth.

3 . 1 4 1 5 9
☐.☐☐☐☐☐

6 Round to the nearest tenth.

1 0 . 7 8 6 2
☐☐.☐☐☐☐

7 Round to the nearest whole number.

6 9 . 9 5
☐☐.☐☐

8 Round to the nearest hundredth.

5 . 5 5 5 5 5
☐.☐☐☐☐☐

9 Round to the nearest thousandth.

8 . 2 3 9 9
☐.☐☐☐☐

10 Round to the nearest whole number.

0 . 9 2 5
☐.☐☐☐

11 Round to the nearest ten-thousandth.

4 . 9 9 9 9 9
☐.☐☐☐☐☐☐

12 Round to the nearest tenth.

4 5 . 2 2 9 6
☐☐.☐☐☐☐

▶ Rounding • mathantics.com

math Antics®
Worksheets

Name: _____

Date: _____

Rounding Decimals (Four Ways)
RND 5

Instructions: Round each decimal four different ways using the procedure you learned in the video. (Important Note: Always start with the exact number when rounding each of the four answers. Don't round from a number that has already been rounded.)

1 Round **6.8452** to the nearest...

whole number: _____7_____

tenth: _____6.8_____

hundredth: _____6.85_____

thousandth: _____6.845_____

2 Round **7.3087** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

3 Round **1.5683** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

4 Round **3.2399** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

5 Round **5.9213** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

6 Round **1.9999** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

7 Round **7.8315** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

8 Round **5.0347** to the nearest...

whole number: _____

tenth: _____

hundredth: _____

thousandth: _____

Thursday: Estimation

Complete worksheet on separate sheet of paper showing your work. (unless you can print)

Estimation is a Skill for Life.

As you walk around and live your life, imagine if you could easily estimate:

- how much a bill will be?
- which item is the best value for the money?
- the size, areas and angles of things

Also, it would be great if you could **quickly guess** how many people are in a room, how many cars in the street, how many boxes on the shelf, or even how many seagulls on the beach.

We are not talking exact answers here, but answers that are **good enough** for your life.

Exact vs Estimate

=

Equals
Symbol

In mathematics we often stress getting an exact answer.

But in everyday life a few cents here or there are not going to make much difference ... you should focus on the dollars!

≈

Approximately
Equals Symbol

Estimation is ... finding a number that is **close enough** to the right answer.

- You are **not** trying to get the **exact** right answer
- What you want is something that is **good enough** (usually in a hurry!)

Why?

*Estimation can save you **money**. Always do a quick estimation of how much you should pay:

   Example: you want to buy five magazines that cost $1.95 each. When you go to buy them, the cost is $12.25. Is that right?

   "five at $1.95 each is about 5 times 2, or about $10"

   So, $12.25 seems too much!   Ask to have the total checked.

*Estimation can save you **time** (when the calculation does not have to be exact):

   Example: you want to plant a row of flowers. The row is 58.3cm long. The plants should be 6cm apart. How many do you need?

   "58.3 is nearly 60, and 60 divided by 6 is 10, so 10 plants should be enough."

*Estimation can save you from making **mistakes with your calculator**:

Example: you are calculating 107 times 56, and the calculator shows this:

952.00   Is that right?

"107 times 56 is a bit more, more than 100 times 50, which is 5,000"

Ooops! you must have typed something wrong ... in fact, you pressed 17×56 (you left out the zero), and without estimating you could have made a big mistake!

In fact, don't trust calculators or computers... Computers don't **understand** what you are doing.

So, use your brain power to **double-check** everything

Fun, and Good for your Brain

It is actually good fun to do estimating because it keeps your mind active. As you walk around see how good you are at estimating answers before they come up.

- At the supermarket try to add up everything yourself, and then compare it to the final bill
- Estimate how long it will take you to get home
- When shopping, see which is the better bargain by estimating the price per quantity
- and so on!

Example: You are making invitation cards. It took you 3 minutes and 20 seconds to make one card, but you need to do 15 more ... how long will it take? Think:

"... it took a little more than 3 minutes for one card, and 3 × 15 is 45...

*... add a bit more ... maybe **50 minutes** and I will be done."*

And then see how close your estimate was when you finish.

Practice is the best way to become good at estimating, because you need to develop your own "strategies", as different numbers need different methods:

Example:

- 550 + 298: **298 is nearly 300** so an estimate is 550+300 = 850
- 550 + 248: **50+48 is nearly 100** so an estimate is 500+200 **+100** = 800

In one case it seemed easy to change one number and then add.

In the other case I added the hundreds together and then increased the result by 100

Estimating sums and differences

Round the numbers to the leading digit. Estimate the sum or difference.

$$3,576 \rightarrow 4,000$$
$$+ 1,307 \rightarrow +1,000$$
is about __5,000__

$$198,248 \rightarrow 200,000$$
$$- 116,431 \rightarrow -100,000$$
is about __100,000__

Round the numbers to the leading digit. Estimate the sum or difference.

$$685 \rightarrow$$
$$+ 489 \rightarrow$$
is about _____

$$21,481 \rightarrow$$
$$- 12,500 \rightarrow$$
is about _____

$$7,834 \rightarrow$$
$$+ 3,106 \rightarrow$$
is about _____

$$682,778 \rightarrow$$
$$+ 130,001 \rightarrow$$
is about _____

$$58,499 \rightarrow$$
$$- 22,135 \rightarrow$$
is about _____

$$902,276 \rightarrow$$
$$- 615,999 \rightarrow$$
is about _____

$$46,801 \rightarrow$$
$$+ 34,700 \rightarrow$$
is about _____

$$9,734 \rightarrow$$
$$- 8,306 \rightarrow$$
is about _____

$$65,606 \rightarrow$$
$$+ 85,943 \rightarrow$$
is about _____

$$5,218 \rightarrow$$
$$- 3,673 \rightarrow$$
is about _____

$$745 \rightarrow$$
$$+ 451 \rightarrow$$
is about _____

$$337,297 \rightarrow$$
$$- 168,931 \rightarrow$$
is about _____

Write < or > for each problem.

$329 + 495$	___	800	$11,569 - 6,146$ ___ 6,000	
$563 - 317$	___	300	$8,193 - 6,668$ ___ 1,000	
$41,924 - 12,445$	___	50,000	$634,577 + 192,556$ ___ 800,000	
$18,885 + 12,691$	___	30,000	$713,096 - 321,667$ ___ 400,000	

Friday: Just for Fun Day

Online Rounding Game – Soccer Math from ABCya

Online Rounding Game – Half Court Rounding

Online Rounding Game – Round to nearest tenth

Online Rounding, Estimating, and Facts Game - AstroBlaster

Connect Four Rounding Game – Game requires printing

Materials needed:

- Roll It! Rounding Game Boards (see below)
- Dice (the number of dice needed depends on the game level being used)
  - Rounding Numbers to the Nearest Ten = 3 dice
  - Rounding Numbers to the Nearest Thousand = 5 dice
  - Rounding Numbers to the Nearest Hundredth = 3 dice
- Cup for holding the dice (optional)
- Small counters or beads
  - You can use anything you have, even crayons to mark.
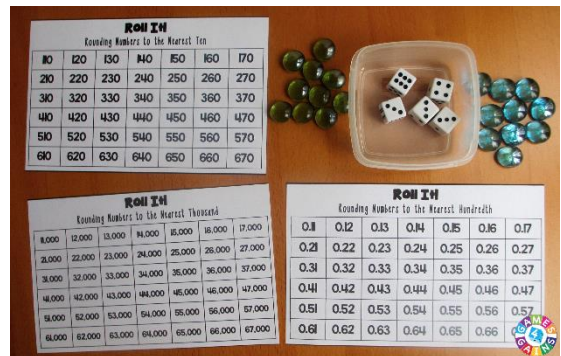
1. Choose and print the game board that you want to start with! There are two of the same game board on each page.

3. Print the game board page. You'll need one game board (1/2 page) for each 2-player game.

4. Grab the correct number of dice for the level your students will play (see "Materials needed" above).

5. Grab some small counters for each player. Each player needs a different color.

Playing the game:

Object of the game: To be the first player to make a line of four in a row (horizontally, vertically, or diagonally) on the game board.

Number of players: 2

1. To decide who goes first, each player rolls one of the dice. The player with the highest roll goes first.
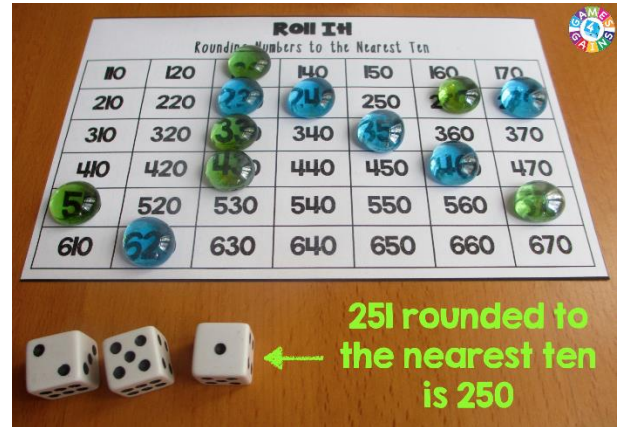
2. On your turn, roll all the dice.

3. Use all the dice that you just rolled to create a number. You may place the dice in any order to create the number. For example, if you rolled 4, 1, and 6, you may create 416, 461, 146, 164, 614, or 641.

- If playing "Rounding Numbers to the Nearest Ten," you'll create a 3-digit number.
- If playing "Rounding Numbers to the Nearest Thousand," you'll create a 5-digit number.
- If playing "Rounding Numbers to the Nearest Hundredth," you'll create a 3-digit decimal by placing a decimal point in front of all 3 digits (i.e. no whole numbers).

4. Depending on the game that you are playing, round the number that you created to the nearest ten/thousand/hundredth. Then, place one of your counters on top of that number on the game board. If your opponent's counter is already on that number, you may not place your counter on the game board.

5. If you are unable to round a number and find its rounded solution, you lose your turn.

Adapted by LJW https://games4gains.com/blogs/teaching-ideas/roll-it-rounding-game

251 rounded to the nearest ten is 250