

Lesson 1-6

Wednesday, August 14, 2019 10:38 AM

MB 35

Name _____



Lesson 1-6 Round Decimals

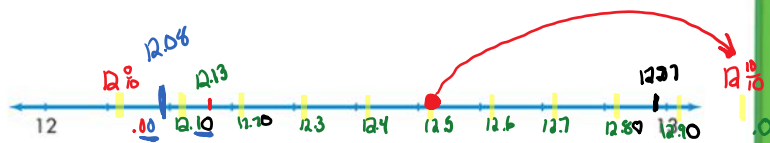
Solve & Share

In science class, Marci recorded numbers from an experiment as 12.87, 12.13, 12.5, and 12.08. Which numbers are closer to 12? Which are closer to 13? How can you tell?

I can ...
round decimals to different places.

I can also look for patterns to solve problems.

You can use **structure** to help determine what number is halfway between two whole numbers. Show your work!



<u>12</u> 12.13 12.08	<u>13</u> 12.87 12.5
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Look Back! Reasoning What is the halfway point between 12 and 13? Is that point closer to 12 or 13?

12.5; it is equal distance from 12 and 13, but it rounds to 13.

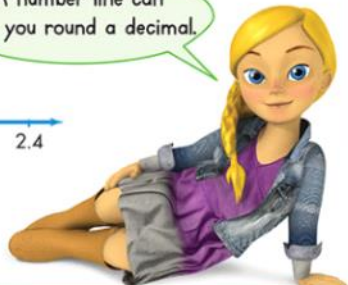


How Can You Round Decimals?

Rounding replaces one number with another number that tells about how many or about how much. Round 2.36 to the nearest tenth. Is 2.36 closer to 2.3 or 2.4?



A number line can help you round a decimal.



B Step 1

Find the rounding place. Look at the digit to the right of the rounding place.

2.36

C Step 2

If the digit is 5 or greater, add 1 to the rounding digit. If the digit is less than 5, leave the rounding digit alone.

Since $6 > 5$, add 1 to the 3.

D Step 3

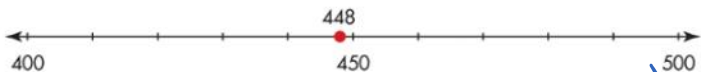
Drop the digits to the right of the rounding digit.

2.36 rounds to 2.4

Rounding can help you find which tenth or hundredth a decimal is closest to.



Convince Me! Critique Reasoning Carrie said, "448 rounds to 500 because 448 rounds to 450 and 450 rounds to 500." Is she correct? Explain. Use the number line in your explanation.



Carrie is wrong if she is rounding to the nearest hundred. 448 is less than 450 so it rounds down to 400.

Name _____



Another Example

Round 3.2 to the nearest whole number.

Is 3.2 closer to 3 or 4?



Step 1

Find the rounding place. Look at the digit to the right of the rounding place.

3.2

Step 2

If the digit is 5 or greater, add 1 to the rounding digit. If the digit is less than 5, leave the rounding digit alone. Since $2 < 5$, leave 3 the same.

Step 3

Drop the digits to the right of the decimal point. Drop the decimal point.

3.2 rounds to 3.

★ Guided Practice

Do You Understand?

- To round 74.58 to the nearest tenth, which digit do you look at? What is 74.58 rounded to the nearest tenth?

look 0.08. $74.60 \rightarrow 74.6$

- Construct Arguments** A car-rental service charges customers for the number of miles they travel, rounded to the nearest whole mile. George travels 40.8 miles. For how many miles will he be charged? Explain.

40.8 rounds to 41

Do You Know How?

In 3–10, round each number to the place of the underlined digit.

3. 16.5 \rightarrow 17

5. 1.32 \rightarrow 1.3

7. 1.652 \rightarrow 1.6

9. 80,547.645 \rightarrow 80,547.6

4. 56.1

6. 42.78

8. 582.04

10. 135,701.949

Complete # 13, 14, 17, 18, 23, 26

13. 34.731 \rightarrow 35

14. 215.39 \rightarrow 215

17. 6.4382 \uparrow \rightarrow 6.44

18. 84.732 \downarrow \rightarrow 84.7

23. **Higher Order Thinking** Emma needs 2 pounds of ground meat to make a meatloaf. She has one package with 2.36 pounds of ground meat and another package with 2.09 pounds of ground meat. She uses rounding and finds that both packages are close to 2 pounds. Explain how Emma can choose the package closer to 2 pounds.

Emma will look at the digit in the tenths place. 2.09 is closer to 2 than 2.36 because 0 tenths is less than 3 tenths.

26. Find two numbers that round to 35.4 when rounded to the nearest tenth. Write the numbers in the box.

35.45	34.42	35.391	35.345	35.44	35.041
		35.5	34.4	35.3	35.0