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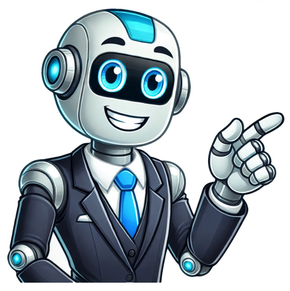

Free Step-by-Step Guide: How to round to the nearest hundredth. Rounding a number is the process of rewriting a number to a value that closely estimates its actual value so that is easier to understand and perform operations on. For example, if a large coffee costs $4.97, you could estimate the cost to be $5 even (this would be an example of rounding to the nearest whole number). If someone asked you how much money you would need to purchase six coffees, you could easily estimate the cost to be $30 (since 5 x 6 =30), rather than having to figure out the value of 4.97 x 6.So, rounding is just a method of making larger or small numbers easier to work with. Figure 01: An example of rounding is estimating that the cost of a $4.97 cup of coffee to be $5 since it is an easier number to work with. Now that you understand what rounding means, it is important that you know the difference between situations when you have to round up and when you have to round down. In the case of rounding, the number 5 is extremely significant. RULE: If the number to the right of the number you are rounding is 5 or greater, then you must round up. If the number to the right of the number you are rounding is 4 or less, then you must round down. This rule applies to rounding any whole number or decimal number. To help you to remember this rule, you can use the rounding hill shown in Figure 02 below to help you remember when to round up and when to round down.If digit to the right of the number being rounded is 4 or less round downIf digit to the right of the number being rounded is 5 or greater round upFor example, if you wanted to round 58 to the nearest ten, the rounded answer is 60 since 8 (the number to the right of the tens digit) is 5 or greater, meaning you have to round up.58 8 is 5 or greater, so round up 60On the other hand, if you wanted to round 43 to the nearest ten, the result would be 40 since 3 (the number to the right of the tens digit) is 4 or less, meaning you have to round down.43 3 is 4 or less, so round down 40 Figure 02: This illustration of a rounding hill can help you to remember when to round up and when to round down. The last key topic that we have to review before we start working on some examples of rounding to the nearest hundredth is place value.Definition: Place Value is the numerical value that a digit has based on its position in the number.Consider the number 472.893We can think of the number 472.893 as the sum of:4 hundreds7 tens2 ones8 tenths9 hundredths3 thousandthsJust like the rounding hill in Figure 02, you can use a place value chart, as shown in Figure 03 below, as a visual tool to help you to correctly identify the place values of digits in any given number. FREE DOWNLOAD: Blank Decimal Place Value Chart (PDF File)Before moving forward, make sure that you have a strong understanding of place value and that you can correctly identify place values, especially for values to the right of a decimal sign. Figure 03: You can use a place value chart to help you to correctly identify the place value of each digit in a number. Keep Learning: Where is the hundredths place value in math?Since this guide focuses on rounding to the nearest hundredth, here are a few examples of identifying the hundredths and thousandths place value digit for the following numbers.5.279 7 is in the hundredths decimal place, 9 is in the thousandths decimal place76.105 0 is in the hundredths decimal place, 5 is in the thousandths decimal place0.444 4 is in the hundredths decimal place, 4 is in the thousandths decimal place2,000.018 1 is in the hundredths decimal place, 8 is in the thousandths decimal place Figure 04: How to identify the hundredths and thousandths decimal places in a given number. Ready to work through some practice problems focused on rounding to the nearest hundredth?For all of the practice problems in this guide, you can use the following 3-step process to round to the nearest hundredth:Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itStep Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerStep Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.If these three steps seam confusing at first, thats okay. They will make more sense once you get some experience applying them to the following practice problems. Starting off with our first example, we are tasked with rounding the number 4.253 to the nearest hundredth.We can solve this problem by applying the 3-step method as follows:Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor the number 4.253, the 3 is in the thousandths decimal place slot (and there are no additional numbers to the right of it). Figure 05: For the number 4.253, the number 3 is in the thousandths place value slot. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerFor this example, 3 is in the thousandths place value slot and 3 is 4 or smaller, so we will have to round down in the third and final step.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.In the last step, we determined that the value in the thousandths place value slot, 3, is 4 or smaller and that we have to round down. When rounding down, we turn that 3 in the thousandths place value slot into a zero, which effectively makes it disappear. Now, we can conclude that:Final Answer: 4.254 rounded to the nearest hundredth is 4.25The final answer to Example 1 (and the steps to solving it) is displayed in Figure 06 below. Figure 06: When rounding down, the number in the thousandths decimal spot becomes a zero and disappears. Notice that Example #2 is very similar to Example #1. The only difference is that, in this example, the value of the number in the thousandths place value slot is a 7 (rather than a 3).Lets go ahead and apply our 3-step method to see how this difference affects our answer.Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor the number 4.257, the 7 is in the hundredths place value slot as illustrated in Figure 07 below. Figure 07: The thousandths place value slot is three digits to the right of the decimal point. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerAs previously stated, for this example, the value of the number in the thousandths place value slot is a 7, which is 5 or larger.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.Since the value in the thousandths place value slot is 5 or larger, we have to round up to solve this problem. When rounding up, we have to add one to number in the tenths place value slot (the number directly to the left of the number in the thousandths place value slot) and zero out the number in the thousandths place value slot.Final Answer: 4.257 rounded to the nearest hundredth is 4.26The entire process of solving this second example is illustrated in Figure 08 below. Figure 08: 4.257 rounded to the nearest thousandth is 4.26. Before we move onto more practice problems, Figure 09 below compares the first two examples. Be sure that you understand the difference between rounding up and rounding down before moving on. Figure 09: Comparing Example #1 (rounding down) and Example #2 (rounding up). What do you notice? For this third example, notice that there is a digit in the ten-thousandths decimal place (the value four digits to the right of the decimal point). While this number, 88.7309 is larger than the numbers in the first two examples, you can still use the 3-step method for rounding to the nearest hundredth to solve it. Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor the number 88.7309, the thousandths place value digit (the number three digits to the right of the decimal point) is 0. Remember that you can ignore any numbers to the right of the digit in the thousandths place value slot (which is the 9 in this example).For the sake of rounding correctly, you can ignore the 9 and think of this number as 88.730. Figure 10: Remember that you can ignore any numbers to the right of the digit in the thousandths place value slot. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerNext, notice that 0 is in the thousandths place value slot. Clearly, 0 is 4 or smaller.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.Since 0 is 4 or smaller, we will have to round down. Since 0 is already 0, we can just make it disappear and make the following conclusion:Final Answer: 88.7309 rounded to the nearest hundredth is 88.73This final answer is shown in Figure 11 below. Figure 11: 88.7309 rounded to the nearest hundredth is 88.73. Similar to the previous example, 29.48736 includes numbers the right of the thousandths decimal place. Remember that you can ignore these numbers and use the three steps to solve this problem as follows:Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor the number 29.48736, the number 7 is in the thousandths place value slot. Figure 12: When rounding to the nearest hundredth, the number in the thousandths place value slot will determine if you have to round up or down. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerSince 7, the number in the thousandths place value slot, is 5 or larger, we will have to round up in step three.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.To round this number to the nearest hundredth, you must add one to the 8 in the tenths place value slot and zero out the 7.Final Answer: 29.48736 rounded to the nearest hundredth is 29.49The complete three-step process for solving example #5 is shown in Figure 13 below. Figure 13: 90.352 rounded to the nearest tenth is equal to 90.4 By now, you should be a bit more comfortable with rounding to the nearest hundredth. Lets continue on to work through two more examples where we will gain more experience using the 3-step method.For this next example, we have to round the number 8.495 to the nearest hundredth.Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor the number 9.495, the digit in the thousandths place value slot is 5, as shown in Figure 14 below. Figure 14: How to Round to the nearest Hundredth: When the digit in the thousandths place value slot is 5 or larger, you have to round up. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerNext, we can see that 5 (digit in the thousandths place value slot) is indeed 5 or larger.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.Since 5 is 5 or larger, we will have to round up. The number directly to the left of the thousandths digit is a 9, so how do we round it up without turning it into a double-digit number? In the case of rounding up the number 9, you must turn it into a zero and add one to the number directly to its left (this process is illustrated in Figure 15 below).Final Answer: 8.495 rounded to the nearest hundredth equals 8.50 Figure 15: 8.495 rounded to the nearest hundredth equals 8.50 Here is our final practice problem for rounding to the nearest hundredth!To solve it, lets go ahead and apply our 3-step method as follows:Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itFor this last problem, the digit in the thousandths place value slot is 4, as shown below in Figure 16. Remember that all of the digits to the right of the 4 can be ignored. Figure 16: Remember that, when it comes to rounding to the nearest tenth, you can ignore any additional numbers that come after the digit in the thousandths decimal slot. Step Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerNotice that the value in the thousandths place value slot is 4, which is 4 or smaller.Step Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths place value slot is 4 or smaller, you can round it down to zero.Since the value in the thousandths place value slot is 4 or smaller, you can round it down to zero. Therefore, the 4 will disappear and we are left with the following result:Final Answer: 64.01408 rounded to the nearest hundredth is 64.01 Figure 17: 64.01408 rounded to the nearest hundredth is 64.01 In math, it is important to know how to estimate and round numbers to make them easier to work with. This skill is especially important when it comes to working with decimal numbers.By working through this step-by-step tutorial on rounding numbers to the nearest hundredth, you learned a simple 3-step process that you can use to round any number to the nearest hundredth. The 3-steps outlined in this guide are as follows:Step One: Identify the value in the thousandths decimal place and ignore all numbers to the right of itStep Two: Determine if the value in the thousandths decimal place is 5 or larger or 4 or smallerStep Three: If the value in the thousandths decimal place is 5 or larger, round the number directly to the left (the value in the hundredths decimal place) up. If the value in the thousandths decimal place is 4 or smaller, round it down to zero.Once you understand how to correctly apply these three steps, you can use them to solve any problem that requires you to round to the nearest hundredth. Using this method, we solved six different rounding practice problems where we had to round a given number to the nearest hundredth. Here is a quick review of our results:4.253 4.254.257 4.2688.7309 88.7329.48736 29.498.495 8.5064.01408 64.01Need more help? If so, we suggest going back and working through this step-by-step guide again (practice makes perfect after all). You can also gain some more rounding practice by downloading some free topic-specific worksheets available on our free math worksheet libraries.Keep Learning: Continue your rounding journey by learning how to round to the nearest thousandth. Comment Welcome to the nearest hundredth, our article which describes the rounding of numbers to the nearest 100th, including examples.In this article you can also find a state-of-the-art rounding calculator a few lines below.Additionally included is a related quiz.Round to the Nearest Hundredth Calculator You may change the (normal) round mode to round up or round down, as discussed further below on this page.Where is the Hundredths Place?The nearest hundredth of a decimal number is the value two places to the right of the decimal point once it has been rounded depending on the value of the thousandths place which is located three places to the right of the decimal point.Frequent rounded numbers include, for instance:How to Round to the Nearest Hundredth?To round a decimal number to the nearest hundredth, check the value of its thousandths.If the value is equal to 5 or greater, increase the value in the hundredths place by 1 and then remove all digits to the right after the second decimal place.If the value is equal to 4 or less, simply remove all the digits to the right after the second decimal place.For example: 1.255: The thousandths value is 5, so we round up: 1.255 1.26 5.911: The thousandths value is 1, so we round down: 5.911 5.91 2.800: Nothing to be done, the thousandths value is 0.In the table below you can find some numbers rounded to nearest 100th.NumberRounded to Nearest 100th0.7560.760.3120.316.36276.3636.36976.370.3750.380.8110.810.980.991.7241.7211.12311.122.252.255.3335.333.141593.146.3846.389.9669.975.00157.5677.566.2436.2420.42920.437.0857.093.3223.327.7777.788.64998.6513.04913.059.7509.7511.30211.34.6734.6718.218.215.68115.6829.8324.750124.7530.71930.72202065.58665.5949.07849.08151.122151.1219.67319.678.58.590.69990.792.81892.82102.219102.22100.00110013.44413.44169.528169.531250.5051250.51111.116111.12 If it is unclear why a certain table entry has been rounded down or up, see the comment form at the bottom. We strive to get back to you as soon as possible.Round up to the Nearest HundredthIf the thousandths value of a certain number is >= 5, then, according to general rounding rules, you round up to the nearest 100th.However, the term round up to the nearest 100th means that all thousandths in between 1 and 9 are rounded up by adding 1 to the value in the hundredths place, and then removing all digits to the right after the second place.Round Down to the Nearest HundredthIf the thousandths value of a certain number is < 5, then, according to general rounding rules, you round down to the nearest 100th.However, the term round down to the nearest 100th means that all thousandths in between 1 and 9 are rounded down by removing all the digits to the right after the second decimal place.Bottom LineIt is noteworthy that any rounded number has always the same value as the number you started with, but its value is less exact.Here you can learn how to round to the nearest thousandth. Article written by Mark, last updated on December 14th, 2023 Rounding to the nearest hundredth simply means finding an approximate value of a given decimal up to two decimal places. When we round to the nearest hundredth, the resulting decimal has only two digits after the decimal point. Thus, rounding off to two decimal places is the same as rounding to the nearest hundredth. For example, 235.679 rounded to the nearest hundredth is 235.68. Rounding numbers helps in making calculations easier and the results can be simpler to understand in those cases where the exact values are not required. Rounding off decimal numbers to the nearest hundredth, we need to know the decimal place values of the digits in the given number. Let us learn more about rounding numbers to the nearest hundredth in this article. Rounding Decimals to the Nearest Hundredth Decimals can be rounded to the nearest ones, tenths, hundredths, thousandths, and so on. Rounding decimal numbers makes the calculation easier and the results can be simpler to understand in those cases where the exact values are not required. For rounding decimal numbers to the nearest hundredth, we need to know the decimal place values of the digits in the given number. This refers to the digits given before the decimal point as well as the digits given after the decimal point. It should be noted that when we round numbers to the nearest hundredth, we always use the thousandths place to decide whether the hundredths place will round up or will remain the same. Observe the decimal place value chart to understand this better.It should be noted that when we round a decimal number to the nearest hundredth, the round decimal is said to be correct to two places of decimal. In other words, if we are asked to round off a number to two decimal places, it means we need to round it to the nearest hundredth.How to Round to the Nearest Hundredth? When we round a decimal number to the nearest hundredth, we need to follow a certain set of rules and steps given below:Step 1: Observe the number that we need to round.Step 2: Since we need to round the given decimal number to the nearest hundredth, we mark the digit at the hundredths place.Step 3: Then, we observe the 'thousandths' place digit, which lies to the right of the hundredths column.Step 4: If the digit at the thousandths place is less than 5, we write the hundredths place digit as it is and remove all the digits to its right.Step 5: If the digit at the thousandths place is 5 or more than 5, we add 1 to the digit at the hundredths place, that is, we increase the hundredths place by 1 and remove all the digits to its right.Let us take an example to round a number to the nearest hundredth.Example: Round the given number to the nearest hundredths: 2.436.Solution: We will use the given steps to round 2.436 to the nearest hundredth.We will observe the number that we need to round: 2.436.Since we need to round 2.436 to the nearest hundredth, we mark the digit at the hundredth place. Here, the digit in the hundredth place is 3, this means we will mark 3 in 2.436.Then, we observe the 'thousandths' place, which lies to the right of the hundredths column. Here, the digit in the thousandth place is 6.According to the rules, if the digit in the thousandth place is 5 or more than 5, we add 1 to the digit in the hundredth place, that is, we increase the hundredth place by 1 and remove all the digits to the right. In this case, the digit in the thousandth place is 6, which is more than 5. Therefore, the given number will be rounded to 2.44.Related TopicsCheck the following pages related to rounding to the nearest hundredth in math. Example 1: Round 1.738 to the nearest hundredth.Solution:In order to round a number to the nearest hundredth, we need to check the digit in the thousandths place.In the given number, 1.738, the digit in the thousandths place is 8. Since 8 is greater than 5, the digit in the hundredths place will increase by 1, that is, 3 will change to 4 and the remaining digits to its right will become zero. Therefore, 1.738 will be rounded up to 1.74.Example 2: Round 0.133 to the nearest hundredth.Solution:Rounding numbers to the nearest hundredths means rounding numbers to two decimal places. In the given number, 0.133, the digit in the thousandths place is 3. Since 3 is smaller than 5, the digit in the hundredths place will be the same, that is, 3, and the remaining digits to its right will become zero. Therefore, 0.133, when rounded to the nearest hundredth, will become 0.13.Example 3: Find the approximate value of the decimal number 1.090909 to two decimal places.Solution:The given number is 1.090909. To round to the nearest hundredth, we will be looking at the digit at the thousandths place which is 0 in this number. Since, 0 < 5, the hundredths place digit will be written as it is. Therefore, 1.090909 to the nearest hundredth is 1.09.View Answer >go to slidego to slidego to slideHave questions on basic mathematical concepts?Become a problem-solving champ using logic, not rules. Learn the why behind math with our certified expertsBook a Free Trial ClassFAQs on Rounding to the Nearest Hundredth Rounding a number means adjusting its digits in such a way that it gives an approximate value. This value is an easier representation of the given number. For rounding numbers to the nearest hundredth, we need to observe the place values after the decimal point. In other words, when we round to the nearest hundredth, we always use the thousandths place to decide whether the hundredths place will round up or will remain the same. If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right. If the digit in the thousandths place is 5 or more than 5, we add 1 to the digit in the hundredths place, that is, we increase the hundredths place by 1 and write 0 in all the digits to the right.How to Round 1.625 to the Nearest Hundredth?In order to round 1.625 to the nearest hundredth, we will check the thousandths place. Here, the digit in the thousandths place is 5. Therefore, we will add 1 to the digit in the hundredths place, that is, 2 + 1 = 3, and write 0 in the digits to the right. So, 1.625 will be rounded to 1.63.How to Round 0.698 to the Nearest Hundredth?When we round decimal numbers to the nearest hundredths, we need to check the thousandths place. In this case, the digit in the thousandths place is 8, which is more than 5. So, we will add 1 to the digit in the hundredths place, that is, 9 +1 = 10, and write 0 in the digits to the right. Now, since we can write only one digit in every column, the '1' of 10 will be carried over to the preceding column and added to it. So, 0.698 will be rounded to 0.70.What is 4.537 Rounded to the Nearest Hundredth?In order to round 4.537 to the nearest hundredth, we will observe the thousandths digit. In this case, it is 7, which is more than 5. So, we will add 1 to the digit in the hundredths place and the remaining digits to the right will be changed to 0. Therefore, 4.537 will be rounded to 4.54.What is 129.253 Rounded to the Nearest Hundredth?When we round decimal numbers to the nearest hundredths, we need to check the thousandths place. In this case, 129.253, the digit in the thousandths place is 3, which is less than 5. So, we keep the digit in the hundredths place the same, and write 0 in all the digits to the right. Therefore, 129.253 will be rounded to 129.25.What are the Rules for Rounding Decimals to the Nearest Hundredth?When we round a decimal number to the nearest hundredth, we need to follow a certain set of rules given below.Observe the number that we need to round.Since we need to round the given decimal to the nearest hundredth, we mark the digit at the hundredths place.Then, we observe the 'thousandths' place, which lies to the right of the hundredths column.If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right, i.e., after the thousandths place (ten-thousandths, hundred thousandths, etc.).If the digit in the thousandths place is 5 or more than 5, we increase the hundredths place by 1 and write 0 in all the digits to the right, that is the thousandths place, the ten-thousandths place, and so on.How to Round Decimals to the Nearest Hundredth?Decimal numbers can be rounded to the nearest hundredth by observing the digit in the thousandths place. This means, when we round numbers to the nearest hundredth, we check the thousandths place. If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right. If the digit in the thousandths place is 5 or more than 5, we increase the hundredths place by 1 and write 0 in all the digits to the right. In the realm of mathematics, precision is paramount. Whether youre a scientist conducting experiments, an engineer designing structures, or a student tackling homework problems, the ability to round decimals accurately is an essential skill. Rounding allows us to simplify numbers while retaining their essential meaning, making them more manageable for calculations and communication. One common scenario involves rounding decimals to the nearest hundredth, a process that demands careful attention to detail and a clear understanding of place value. This blog post will delve into the intricacies of rounding decimals to the nearest hundredth, equipping you with the knowledge and confidence to tackle this important mathematical concept.Understanding Place Value Before we embark on the journey of rounding, its crucial to establish a solid foundation in place value. Place value refers to the position of a digit in a number, which determines its significance. In the decimal system, each place value represents a power of ten.Decimal PlacesThe decimal point acts as a divider, separating whole numbers from fractional parts. The digits to the right of the decimal point represent fractions of one. Each place value to the right of the decimal point has a value that is one-tenth of the previous place value. Ones place: 1Tenths place: 0.1Hundredths place: 0.01Thousandths place: 0.001And so onRounding to the Nearest HundredthRounding to the nearest hundredth means expressing a decimal number to two decimal places. The hundredths place is the second digit after the decimal point. To round a decimal to the nearest hundredth, follow these steps:1. **Identify the hundredths digit:** This is the second digit after the decimal point.2. **Look at the digit to the right (the thousandths digit):** * If the thousandths digit is 5 or greater, round the hundredths digit up by 1. * If the thousandths digit is less than 5, leave the hundredths digit as it is. ExampleLets round the number 3.14159 to the nearest hundredth:The hundredths digit is 4.The thousandths digit is 1 (which is less than 5).Therefore, 3.14159 rounded to the nearest hundredth is 3.14. (See Also: 20 Is What Percent of 52? Find Out Now)Rounding Up and DownRounding involves making a judgment call based on the value of the digit in the thousandths place. When the thousandths digit is 5 or greater, we round the hundredths digit up. This is called rounding up. Conversely, when the thousandths digit is less than 5, we leave the hundredths digit as it is. This is called rounding down. ExampleConsider the number 2.785. To round this to the nearest hundredth:The hundredths digit is 8.The thousandths digit is 5.Since the thousandths digit is 5 or greater, we round the hundredths digit up. Therefore, 2.785 rounded to the nearest hundredth is 2.79.Rounding Whole NumbersWhile rounding decimals is common, remember that whole numbers can also be rounded to the nearest hundredth. In this case, the decimal portion would simply be 00, ExampleRounding the whole number 15 to the nearest hundredth would result in 15.00.Applications of Rounding to the Nearest HundredthRounding decimals to the nearest hundredth finds numerous applications in various fields:ScienceScientists often use rounding to the nearest hundredth when recording measurements, expressing results, and performing calculations. For example, the length of a leaf might be measured as 5.234 centimeters, which could be rounded to 5.23 centimeters for reporting purposes. (See Also: Algebra 2 Test Questions? Mastering Math Skills)EngineeringEngineers rely on precise measurements and calculations. Rounding to the nearest hundredth is essential when designing structures, calculating material quantities, and ensuring accuracy in blueprints.FinanceIn financial transactions, rounding to the nearest hundredth is crucial for accurate pricing, calculating interest rates, and managing budgets. For example, a product priced at $19.997 could be rounded to $20.00 for display purposes.Everyday LifeRounding to the nearest hundredth is also used in everyday situations, such as estimating distances, calculating discounts, and comparing prices.ConclusionRounding decimals to the nearest hundredth is a fundamental mathematical skill with wide-ranging applications. By understanding place value, the rules of rounding, and its practical implications, we can confidently navigate the world of decimals and make informed decisions based on accurate information. Whether youre a student, a professional, or simply someone who wants to enhance their mathematical literacy, mastering the art of rounding to the nearest hundredth is an invaluable asset.How Do You Round Decimals to the Nearest Hundredth?What if the thousandths digit is 5?When the thousandths digit is 5, you always round the hundredths digit up. For example, 3.145 rounded to the nearest hundredth would be 3.15.How do I round a decimal greater than 99?If the decimal is greater than 99, you will round it to the nearest whole number. For example, 102.345 rounded to the nearest hundredth would be 102.35. (See Also: How Accurate Are Online Pd Measurement? Unveiled)Can you give me more examples of rounding decimals to the nearest hundredth?Here are a few more examples:2.763 rounded to the nearest hundredth is 2.768.918 rounded to the nearest hundredth is 8.921.350 rounded to the nearest hundredth is 1.35Is there a shortcut for rounding decimals?While there isnt a single shortcut, understanding the concept of place value and focusing on the hundredths and thousandths digits can make the process faster. Why is rounding to the nearest hundredth important?Rounding to the nearest hundredth is important for accuracy and precision in many fields, including science, engineering, finance, and everyday life. It allows us to simplify numbers while retaining their essential meaning. 1. How to Round Decimal to the Nearest Hundredths?Analyze the digit in the thousandths place and if it is >=5 increase the hundredths place value by 1 and remove all the digits in thousandths place and thereafter. If it is real-world situations.Can you round to other decimal places besides the hundredths?Absolutely! You can round to any decimal place, such as the nearest tenth, thousandth, or even beyond. The process is similar to rounding to the nearest hundredth; you just need to focus on the appropriate place value and the digit to the right of it.Whats the difference between rounding and truncating?Rounding is the process of approximating a number to a specific decimal place based on the value of the next decimal place. Truncating, on the other hand, simply involves removing all the digits after a specific decimal place without considering their values. While rounding provides a more accurate approximation, truncating can lead to more significant errors in some cases.Information SourcesFor more information on rounding decimals, place values, and related concepts, you can explore the following resources: Remember, practice makes perfect! Keep rounding decimals, and soon youll be a pro at approximating numbers to the nearest hundredth or any other decimal place. Happy learning with Brighterly! Poor Level Weak math proficiency can lead to academic struggles, limited college, and career options, and diminished self-confidence. Mediocre Level Weak math proficiency can lead to academic struggles, limited college, and career options, and diminished self-confidence. Needs Improvement Start practicing math regularly to avoid your child`s math scores dropping to C or even D. High Potential It's important to continue building math proficiency to make sure your child outperforms peers at school. Jo-ann Caballes 13 articles Rounding numbers means adjusting the digits of a number so that it gives an approximate value. In other words, while rounding numbers, we replace a number with an estimated value which is a simpler and a shorter representation of the given number. Rounding to the nearest hundredth means finding the approximate value of the given decimal number up to 2 decimal places. Let us learn more about rounding numbers to the nearest hundredth in this article. Rounding Decimals to the Nearest Hundredth Decimals can be rounded to the nearest ones, tenths, hundredths, thousandths, and so on. Rounding decimal numbers makes the calculation easier and the results can be simpler to understand in those cases where the exact values are not required. For rounding decimal numbers to the nearest hundredth, we need to know the decimal place values of the digits in the given number. This refers to the digits given before the decimal point as well as the digits given after the decimal point. It should be noted that when we round numbers to the nearest hundredth, we always use the thousandths place to decide whether the hundredths place will round up or will remain the same. Observe the decimal place value chart to understand this better.It should be noted that when we round a decimal number to the nearest hundredth, the round decimal is said to be correct to two places of decimal. In other words, if we are asked to round off a number to two decimal places, it means we need to round it to the nearest hundredth.How to Round to the Nearest Hundredth? When we round a decimal number to the nearest hundredth, we need to follow a certain set of rules and steps given below:Step 1: Observe the number that we need to round.Step 2: Since we need to round the given decimal number to the nearest hundredth, we mark the digit at the hundredths place.Step 3: Then, we observe the 'thousandths' place digit, which lies to the right of the hundredths column.Step 4: If the digit at the thousandths place is less than 5, we write the hundredths place digit as it is and remove all the digits to its right.Step 5: If the digit at the thousandths place is 5 or more than 5, we add 1 to the digit at the hundredths place, that is, we increase the hundredths place by 1 and remove all the digits to its right.Let us take an example to round a number to the nearest hundredth.Example: Round the given number to the nearest hundredths: 2.436.Solution: We will use the given steps to round 2.436 to the nearest hundredth.We will observe the number that we need to round: 2.436.Since we need to round 2.436 to the nearest hundredth, we mark the digit at the hundredth place. Here, the digit in the hundredth place is 3, this means we will mark 3 in 2.436.Then, we observe the 'thousandths' place, which lies to the right of the hundredths column. Here, the digit in the thousandth place is 6.According to the rules, if the digit in the thousandth place is 5 or more than 5, we add 1 to the digit in the hundredth place, that is, we increase the hundredth place by 1 and remove all the digits to the right. In this case, the digit in the thousandth place is 6, which is more than 5. Therefore, the given number will be rounded to 2.44.Related TopicsCheck the following pages related to rounding to the nearest hundredth in math. Example 1: Round 1.738 to the nearest hundredth.Solution:In order to round a number to the nearest hundredth, we need to check the digit in the thousandths place.In the given number, 1.738, the digit in the thousandths place is 8. Since 8 is greater than 5, the digit in the hundredths place will increase by 1, that is, 3 will change to 4 and the remaining digits to its right will become zero. Therefore, 1.738 will be rounded up to 1.74.Example 2: Round 0.133 to the nearest hundredth.Solution:Rounding numbers to the nearest hundredths means rounding numbers to two decimal places. In the given number, 0.133, the digit in the thousandths place is 3. Since 3 is smaller than 5, the digit in the hundredths place will be the same, that is, 3, and the remaining digits to its right will become zero. Therefore, 0.133, when rounded to the nearest hundredth, will become 0.13.Example 3: Find the approximate value of the decimal number 1.090909 to two decimal places.Solution:The given number is 1.090909. To round to the nearest hundredth, we will be looking at the digit at the thousandths place which is 0 in this number. Since, 0 < 5, the hundredths place digit will be written as it is. Therefore, 1.090909 to the nearest hundredth is 1.09.View Answer >go to slidego to slidego to slideHave questions on basic mathematical concepts?Become a problem-solving champ using logic, not rules. Learn the why behind math with our certified expertsBook a Free Trial ClassFAQs on Rounding to the Nearest Hundredth Rounding a number means adjusting its digits in such a way that it gives an approximate value. This value is an easier representation of the given number. For rounding numbers to the nearest hundredth, we need to observe the place values after the decimal point. In other words, when we round to the nearest hundredth, we always use the thousandths place to decide whether the hundredths place will round up or will remain the same. If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right. If the digit in the thousandths place is 5 or more than 5, we add 1 to the digit in the hundredths place, that is, we increase the hundredths place by 1 and write 0 in all the digits to the right.How to Round 1.625 to the Nearest Hundredth?In order to round 1.625 to the nearest hundredth, we will check the thousandths place. Here, the digit in the thousandths place is 5. Therefore, we will add 1 to the digit in the hundredths place, that is, 2 + 1 = 3, and write 0 in the digits to the right. So, 1.625 will be rounded to 1.63.How to Round 0.698 to the Nearest Hundredth?When we round decimal numbers to the nearest hundredths, we need to check the thousandths place. In this case, the digit in the thousandths place is 8, which is more than 5. So, we will add 1 to the digit in the hundredths place, that is, 9 +1 = 10, and write 0 in the digits to the right. Now, since we can write only one digit in every column, the '1' of 10 will be carried over to the preceding column and added to it. So, 0.698 will be rounded to 0.70.What is 4.537 Rounded to the Nearest Hundredth?In order to round 4.537 to the nearest hundredth, we will observe the thousandths digit. In this case, it is 7, which is more than 5. So, we will add 1 to the digit in the hundredths place and the remaining digits to the right will be changed to 0. Therefore, 4.537 will be rounded to 4.54.What is 129.253 Rounded to the Nearest Hundredth?When we round decimal numbers to the nearest hundredths, we need to check the thousandths place. In this case, 129.253, the digit in the thousandths place is 3, which is less than 5. So, we keep the digit in the hundredths place the same, and write 0 in all the digits to the right. Therefore, 129.253 will be rounded to 129.25.What are the Rules for Rounding Decimals to the Nearest Hundredth?When we round a decimal number to the nearest hundredth, we need to follow a certain set of rules given below.Observe the number that we need to round.Since we need to round the given decimal to the nearest hundredth, we mark the digit at the hundredths place.Then, we observe the 'thousandths' place, which lies to the right of the hundredths column.If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right, i.e., after the thousandths place (ten-thousandths, hundred thousandths, etc.).If the digit in the thousandths place is 5 or more than 5, we increase the hundredths place by 1 and write 0 in all the digits to the right, that is the thousandths place, the ten-thousandths place, and so on.How to Round Decimals to the Nearest Hundredth?Decimal numbers can be rounded to the nearest hundredth by observing the digit in the thousandths place. This means, when we round numbers to the nearest hundredth, we check the thousandths place. If the digit in the thousandths place is less than 5, we write 0 in the thousandths place and in all the places to its right. If the digit in the thousandths place is 5 or more than 5, we increase the hundredths place by 1 and write 0 in all the digits to the right. In the realm of mathematics, precision is paramount. Whether youre a scientist conducting experiments, an engineer designing structures, or a student tackling homework problems, the ability to round decimals accurately is an essential skill. Rounding allows us to simplify numbers while retaining their essential meaning, making them more manageable for calculations and communication. One common scenario involves rounding decimals to the nearest hundredth, a process that demands careful attention to detail and a clear understanding of place value. This blog post will delve into the intricacies of rounding decimals to the nearest hundredth, equipping you with the knowledge and confidence to tackle this important mathematical concept.Understanding Place Value Before we embark on the journey of rounding, its crucial to establish a solid foundation in place value. Place value refers to the position of a digit in a number, which determines its significance. In the decimal system, each place value represents a power of ten.Decimal PlacesThe decimal point acts as a divider, separating whole numbers from fractional parts. The digits to the right of the decimal point represent fractions of one. Each place value to the right of the decimal point has a value that is one-tenth of the previous place value. Ones place: 1Tenths place: 0.1Hundredths place: 0.01Thousandths place: 0.001And so onRounding to the Nearest HundredthRounding to the nearest hundredth means expressing a decimal number to two decimal places. The hundredths place is the second digit after the decimal point. To round a decimal to the nearest hundredth, follow these steps:1. **Identify the hundredths digit:** This is the second digit after the decimal point.2. **Look at the digit to the right (the thousandths digit):** * If the thousandths digit is 5 or greater, round the hundredths digit up by 1. * If the thousandths digit is less than 5, leave the hundredths digit as it is. ExampleLets round the number 3.14159 to the nearest hundredth:The hundredths digit is 4.The thousandths digit is 1 (which is less than 5).Therefore, 3.14159 rounded to the nearest hundredth is 3.14. (See Also: 20 Is What Percent of 52? Find Out Now)Rounding Up and DownRounding involves making a judgment call based on the value of the digit in the thousandths place. When the thousandths digit is 5 or greater, we round the hundredths digit up. This is called rounding up. Conversely, when the thousandths digit is less than 5, we leave the hundredths digit as it is. This is called rounding down. ExampleConsider the number 2.785. To round this to the nearest hundredth:The hundredths digit is 8.The thousandths digit is 5.Since the thousandths digit is 5 or greater, we round the hundredths digit up. Therefore, 2.785 rounded to the nearest hundredth is 2.79.Rounding Whole NumbersWhile rounding decimals is common, remember that whole numbers can also be rounded to the nearest hundredth. In this case, the decimal portion would simply be 00, ExampleRounding the whole number 15 to the nearest hundredth would result in 15.00.Applications of Rounding to the Nearest HundredthRounding decimals to the nearest hundredth finds numerous applications in various fields:ScienceScientists often use rounding to the nearest hundredth when recording measurements, expressing results, and performing calculations. For example, the length of a leaf might be measured as 5.234 centimeters, which could be rounded to 5.23 centimeters for reporting purposes. (See Also: Algebra 2 Test Questions? Mastering Math Skills)EngineeringEngineers rely on precise measurements and calculations. Rounding to the nearest hundredth is essential when designing structures, calculating material quantities, and ensuring accuracy in blueprints.FinanceIn financial transactions, rounding to the nearest hundredth is crucial for accurate pricing, calculating interest rates, and managing budgets. For example, a product priced at $19.997 could be rounded to $20.00 for display purposes.Everyday LifeRounding to the nearest hundredth is also used in everyday situations, such as estimating distances, calculating discounts, and comparing prices.ConclusionRounding decimals to the nearest hundredth is a fundamental mathematical skill with wide-ranging applications. By understanding place value, the rules of rounding, and its practical implications, we can confidently navigate the world of decimals and make informed decisions based on accurate information. Whether youre a student, a professional, or simply someone who wants to enhance their mathematical literacy, mastering the art of rounding to the nearest hundredth is an invaluable asset.How Do You Round Decimals to the N