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Related Pages Place Value Chart Adding Decimals Using Place Value More Numbers Lessons Reading Place Values A decimal number is a number that has digits before and after a decimal point. The decimal point is placed after the ones digit. Example: Let us look at the decimal number 3.145 Each digit in a decimal number has a place value depending on its position. The following table shows the number 3.145 in a place value chart. Scroll down the page for more examples and solutions. The value of a digit is determined by its place value. Give the place value and the value of the digit. When the decimal point of a number is not shown (for example, in whole numbers), then it is assumed to be at the end of the number. Example: $321 = 321$. $4 = 4$. Reading Decimal Numbers Example: Read 38.7425 Solution: Step 1: Values to the left of the decimal point are greater than one. 38 means 3 tens and 8 ones. Step 2: The word name of the decimal is determined by the place value of the digit in the last place. The last digit (5) is in the ten-thousandth place. 38.7425 is read as thirty-eight and seven thousand four hundred twenty-five ten thousandths. How To Read A Decimal? In this video, you will learn decimal place value patterns for tenths, hundredths, and thousandths. Real world examples help students understand everyday uses for decimals in measurement. Show Video Lesson

How To Read And Write Decimal Numbers? Show Video Lesson Review Of How To Read And Write Decimals Show Video Lesson Try out our new and fun Fraction Concoction Game. Add and subtract fractions to make exciting fraction concoctions following a recipe. There are four levels of difficulty: Easy, medium, hard and insane. Practice the basics of fraction addition and subtraction or challenge yourself with the insane level. We welcome your feedback, comments and questions about this site or page. Please submit your feedback or enquiries via our Feedback page. In order to continue enjoying our site, we ask that you confirm your identity as a human. Thank you very much for your cooperation. In the first part of this worksheet, students will write the value of the underlined digit. In the second half, they will answer several questions regarding the values of digits in a given number. Numbers go up to the tenths place. Place Value Cut & Glue (Tenths) Color each place correctly, according to the instructions. Then cut out the strips and glue each one in the correct position above the number. 3rd through 6th Grades Students are given digits. Students arrange the digits to make the numbers given by the teacher. 2nd through 4th Grades Test your students on reading numbers with digits in the tenths place, as well as a few whole numbers to ensure they're reading the numbers closely. The file includes score sheets you can send home to parents as well. 4th and 5th Grades Number Reading Wheel: Decimals (Tenths) Test your students' ability to read decimal numbers with this handy number wheel. The wheel includes 10 numbers with digits in the tenths place, as well as 2 whole 2-digit numbers to make sure they are reading each number carefully. 4th and 5th Grades Comparing Decimals (Tenths) Practice comparing numbers with this worksheet, which has whole numbers, as well as numbers with values in the tenths place. 3rd through 5th Grades Looking for ideas to practice decimal place value? If your students are anything like mine, they need FUN ways to review decimals that go beyond worksheets and place value charts. I want to share several activities that keep 3rd, 4th, and 5th graders engaged while reviewing decimal place value to the thousandths place. These are great to use for independent, small group, and whole class practice after you've introduced students to decimals. What I LOVE about this resource is that it's all in one. You can use these digital activities right in Google Slides to introduce decimals, give students interactive practice with digital decimal manipulatives, and assess what they know. The slides go step-by-step so that your students get an in-depth review. You can use the instructional slides for your whole group mini-lessons and assign the practice and review slides for math stations and centers. Or you can share the whole activity with students who want to do a self-paced lesson. Students love how interactive these digital decimal activities are, since they get to type and drag and drop throughout the slides. I love using math task cards, and this scavenger hunt activity is a fun twist because it gets kids up and moving! You just print and cut apart the task cards and hang them up around your classroom. Students each start at a different card and then hunt for the answer on another card in the room. Once they finish the loop, they know they're done, so it's self-checking! I love that this review activity also doubles as an assessment, but because it's a game, it's fun for students to complete! You might think word problems sound boring, but kids really connect to these real-life word problems. This is one of my favorite ways to review math content in a more rigorous way. Using one decimal word problem a day makes a great math warmup question or exit ticket. I've also used these for a quiz-and-trade game if you like using cooperative review activities in your classroom! In this set, each word problem comes in a full-screen size for easy projection as well as a small printer-friendly version that works great for math notebooks and stations. A quick and easy math problem of the day is another good way to keep students fresh when it comes to identifying decimal place value and comparing, ordering, and rounding decimals. With just one decimal question each day, these are perfect for students who get overwhelmed by a whole review worksheet. They just quickly drag objects or type in a text box to answer each question. This no-prep set of daily decimal value problems has an interactive version in Google Slides as well as a printable version. I love these for entrance tickets, exit tickets, morning work, and math workshop openers. You know how I rave about Boom cards. Teachers love them because they're easy to assign, provide immediate feedback, and keep students engaged. Kids love them because they're fun! My Boom decimal place value bundle has SEVEN sets that students can use to practice: reading, writing, representing, and identifying decimals to the thousandths place, rounding decimals to the nearest whole number, comparing and ordering decimals, identifying equivalent decimals and fractions. Try out my identifying decimals Boom cards deck right here! You can also grab a free set of Boom cards to review decimals on the number line. If your students are anything like mine, this is a tricky spot! Last but not least, I've got a fun freebie for you! Kids love completing this decimal place value monster coloring activity. This is great around Halloween but honestly it works at any time of the year! Just like with whole numbers, students benefit from doing lots of different practice activities to review place value for decimals. These engaging, hands-on activities help students review place value, comparing, ordering, and rounding, for decimals to the tenths, hundredths, and thousandths place. Thanks to Coffee Beans and Children's Dreams for the mockups used in some of the images in this post. Here you will learn about decimal place value, including the names and values of the different positions. Students will first learn about decimal place value as part of their work with numbers and operations in base ten in elementary school. Decimal place value extends our understanding of place value to the decimal system, which are the digits to the right of the decimal point. To do this, look at the connection between fractions and decimals. For example, This model shows $\frac{4}{10}$. We can also write this as the decimal 0.4. We read it as "four-tenths," just like the fraction. That is because the first decimal place is tenths. Let's look at the next decimal place. For example, This model shows $\frac{4}{1000}$. We can also write this as the decimal 0.004. We read it as "four-thousandths," just like the fraction. That is because the third decimal place is thousandths. Here are the first three decimal place values. They show us the value of each digit in the number. Notice the pattern in the denominators: to to As the places become smaller, each is $\frac{1}{10}$ the size of the place to its left. As the places become larger, each is 10 times the size of the place to its right. These are the same patterns you see with whole numbers. How does this relate to 4th grade math and 5th grade math? Grade 4 - Numbers and Operations - Fractions (4.NF.C.6) Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram. Grade 5 - Numbers and Operations in Base 10 (5.NBT.A.1) Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left. In order to write a fraction as a decimal: Write the fraction in words. Place the numerator of the fraction on the place value chart. Write the decimal number. In order to write a fraction as a decimal: Write the decimal in words using a place value chart. The digits of the decimal will be the numerator, and the denominator is where the last digit of the decimal is in the place value chart. Write the fraction. In order to write the value of a digit in a decimal number: Locate the digit within the number. Use the place value chart to find the position. Write the value of the digit. In order to compare the value of a digit in two decimal numbers: Locate the digits within the number(s). Use the place value chart to find the positions. Compare how many times bigger or smaller the positions are. Use this worksheet to check your grade 4 and 5 students' understanding of decimal place value. 15 questions with answers to identify areas of strength and support! DOWNLOAD FREE x Use this worksheet to check your grade 4 and 5 students' understanding of decimal place value. 15 questions with answers to identify areas of strength and support! DOWNLOAD FREE Write $\frac{2}{10}$ as a decimal. Write the fraction in words. $\frac{2}{10}$ is 2 tenths. 2 Place the numerator of the fraction on the place value chart. Put a 2 in the tenths place. 3 Write the decimal number. $\frac{2}{10}$ written as a decimal is 0.2 Write $\frac{51}{100}$ as a decimal. Write the fraction in words. $\frac{51}{100}$ is 51 hundredths. Place the numerator of the fraction on the place value chart. The model shows $\frac{51}{100}$. In the model there are 5 full columns of 10, which is equal to 5 tenths. So to write this decimal, put a 5 in the tenths place and 1 in the hundredths place. Write the decimal number. $\frac{51}{100}$ written as a decimal is 0.51 *Notice there is only one digit in each place, just like with whole numbers. Write 0.22 as a fraction. Write the decimal in words using a place value chart. 0.22 is 22 hundredths. The digits of the decimal will be the numerator, and the denominator is where the last digit of the decimal is in the place value chart. The model shows 22 hundredths. The 22 in the decimal is the numerator. The last place value position is hundredths (which is also the size of the 22 parts), so this is the denominator. What is the value of the digit 3 in 0.13? Locate the digit within the number. Use the place value chart to find the position. Write the value of the digit. The value of the digit 3 is 0.03 or $\frac{3}{100}$. What is the value of the digit 7 in 0.75? Locate the digit within the number. Use the place value chart to find the position. Write the value of the digit. The value of the digit 7 is 0.7 or $\frac{7}{10}$. Compare the value of each digit 1 in the number 0.101. Locate the digits within the number(s). Use the place value chart to find the positions. Compare how many times bigger or smaller the positions are. In 0.101, there is a digit 1 in the tenths position and in the thousandths position. 0.1 is 100 times greater than 0.001. 0.001 is 100 times smaller than 0.1. The 1 in the thousandths is $\frac{1}{1000}$ the value of the 1 in the tenths. Instead of relying on just worksheets, use manipulatives to help students visualize the size of each place value and see how each position relates to the others. For smaller positions, especially thousandths, digital representations may be the best option. Decimal place values in our number system are based on patterns, which many students will discover as they work. Ask questions such as "What do you notice about these numbers?" or "If you change the place value of the digits, how does the value of the number change?" to guide all students to see the underlying structure of our place value system. Incorporate decimal place value ideas daily. It can be something as simple as a quick place value game. For example, say to students "I am thinking of a number that has more than 7 tenths, what could it be?" Daily activities like this help students to think flexibly about decimal place value. Ask students to show the standard form, expanded form, and word form for any given decimal to reinforce the connection between each representation. Have a decimal place value chart posted in the classroom or another way that is easily accessible to students. Seeing a chart regularly can help students remember it. Writing more than one digit in a place! Just like with whole number place value, decimal place only has one digit per place. For example, Writing $\frac{51}{100}$ as 0.051 is read as 51 thousandths, not 51 hundredths. The digits 5 and 1 cannot both go into the hundredths place. You place 5 in the tenths place, because $\frac{50}{100} = \frac{5}{10}$. Thinking there is a "oneths" place! The first place value position to the right of the decimal point is the tenths column, not the "oneths" column. For example, In the number 1.534, what is the value of the digit 3? Three tenths or 0.03 * Three hundredths, or 0.03 * (Treating the first decimal (Treating first decimal place as tenths) place as "oneths" and the and the second as hundredths) second as tenths) Confusing the hundredths and hundreds places! The numbers to the right of the decimal point end in "ths" because they are parts of a whole. The numbers to the left of the decimal point do not end in "ths" because they are whole. $\frac{8}{10}$ is 8 tenths. Put an 8 in the tenths place. $\frac{8}{10}$ written as a decimal is 0.8 $\frac{62}{100}$ is 62 hundredths. The model shows $\frac{62}{100}$. In the model there are 6 full columns of 10, which is equal to 6 tenths. So to write this decimal, put a 6 in the tenths place and 2 in the hundredths place. $\frac{62}{100}$ written as a decimal is 0.62 0.19 is 19 hundredths. The model shows 19 hundredths. The 19 in the decimal is the numerator. The last place value position is hundredths (which is also the size of the 19 parts), so this is the denominator. 0.19 = $\frac{19}{100}$ Locate the digit within the number. Use the place value chart to find the position. The value of the digit 4 is 4 thousandths (0.004 or $\frac{4}{1000}$). The 8 in 0.8 is 100 times less The 8 in 0.18 is 10 times more The 8 in 0.5 is 10 times more The 8 in 0.18 is 100 times less Locate the digits within the number(s). Use the place value chart to find the positions. In 0.8, 8 is in the tenths position. In 0.18, 8 is in the hundredths position. Tenths are 10 times more than hundredths, so the 8 in 0.8 is 10 times more. The 3 in the thousandths is $\frac{3}{1000}$ the size of the 3 in the hundredths The 3 in the thousandths is 100 times smaller than the 3 in the hundredths The 3 in the hundredths is 10 times smaller than the 3 in the tenths The 3 in the hundredths is $\frac{3}{100}$ the size of the 3 in the thousandths Locate the digits within the number(s). Use the place value chart to find the positions. In 0.033, there is a digit 3 in the hundredths position and in the thousandths position. Thousandths are $\frac{1}{1000}$ the size of hundredths, so the 3 in the thousandths is $\frac{3}{1000}$ of the 3 in the hundredths. What role does 10 play in place value? We use a Base Ten number system, meaning each place value position is a grouping of 10. That is why all of the place value positions (like the tenths place or hundredths place) are multiples of 10. How are fractions and decimals similar? They are similar because they can both be used to represent parts. For example, the fraction $\frac{3}{10}$ represents a part (3 tenths) and the decimal 0.3 represents a part (3 tenths). Why is decimal place value important? Decimal place value gives meaning to the digits in each position and helps you understand the size of a number. Understanding decimal place value can help you when comparing or ordering decimals and is also necessary to know when calculating with decimal numbers. What decimal place value positions are used in 5th and 6th grade? In the Common Core, fifth grade students are expected to know and use the tenths place, the hundredths place, and the thousandths place. Sixth graders extend this to even smaller positions. However, it can vary from state to state, so be mindful of your state's standard expectations. At Third Space Learning, we specialize in helping teachers and school leaders to provide personalized math support for more of their students through high-quality, online one-on-one math tutoring delivered by subject experts. Each week, our tutors support thousands of students who are at risk of not meeting their grade-level expectations, and help accelerate their progress and boost their confidence. Find out how we can help your students achieve success with our math tutoring programs. We use essential and non-essential cookies to improve the experience on our website. Please read our Cookies Policy for information on how we use cookies and how to manage or change your cookie settings. Accept Privacy & Cookies Policy Decimal place value is the place value of a digit in a decimal number with respect to a dot, known as the decimal point. The decimal point divides such a number into two parts - whole number and fractional part. The point helps us identify the place values of each digit in a decimal number based on their respective positions. The diagram below shows how a decimal point represents the place values of a digit in a decimal number . Decimal Place Value A universal decimal place value chart is used according to the international numeral system to align the digits in a decimal number accurately as per their positional values. The chart below helps us to identify the place values of digits in a decimal number till millionths. Decimal Place Value Chart Given is a blank printable version of the above place value chart for your use. Blank Printable Decimal Place Value Chart Let us place the the decimal number 9273.5841 in the above given place value chart. Here, the whole number part is 9273 and the fractional part is 5841. The place values of: 3 is (3 × 1) = 37 is (7 × 10) = 702 is (2 × 100) = 200 9 is (9 × 1000) = 9000 5 is (5/10) = 0.5, 8 is (8/100) = 0.084 is (4/1000) = 0.0041 is (1/10000) = 0.0001 The diagram below demonstrates the place values of the decimal number 9273.5841 graphically. Decimal Place Value Example Let us solve some more examples to understand the concept better. Find the place value for the underlined digits in 23862.1267. Solution: The place value of 3 is at the thousands place. So its place value is 3000 The place value of 1 is at the tenths place. So its place value is 0.1 The place value of 7 is at the ten thousandths place. So its place value is 0.0007 Write the place value for the digits 4, 9, 1 and 7 in 459052.20176 according to the place value chart. Solution: The place value of 4 is at the hundred thousands place. So its place value is 400,000 The place value of 9 is at the thousands place. So its place value is 9,000 The place value of 1 is at the thousandths place. So its place value is 0.001 The place value of 7 is at the ten thousandths place. So its place value is 0.0007 Last modified on August 3rd, 2023