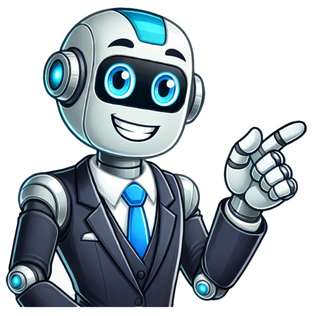
I'm not a bot



In order to continue enjoying our site, we ask that you confirm your identity as a human. Thank you very much for your cooperation. Same as for positive numbers. On a scientific calculator, you press (base number) (inverse) (log) (your number). You can also use the power function: (base) (power) (exponent).An antilog is just a power. The antilog (base 10) of 3 is 10 to the power 3.As to the definition, 10 to the power -3 is defined as 1 / (10 to the power 3).

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Media related to Logarithm at Wikimedia Commons The dictionary definition of logarithm at Wiktionary Quotations related to History of logarithms at Wikiquote A lesson on logarithms can be found on WikiversityWeisstein, Eric W., "Logarithm", MathWorldKhan Academy: Logarithms, free online micro lectures"Logarithmic function", Encyclopedia of Mathematics, EMS Press, 2001 [1994]Colin Byfleet, Educational video on logarithms, retrieved 12 October 2010Edward Wright, Translation of Napier's work on logarithms, archived from the original on 3 December 2002, retrieved 12 October 2010Glaisher, James Whitbread Lee (1911), "Logarithm", in Chisholm, Hugh (ed.), Encyclopdia Britannica, vol.16 (11thed.), Cambridge University Press, pp.86877Retrieved from " We often encounter logarithms in mathematics, especially when dealing with exponential growth or decay. At times, we need to reverse the process and perform an inverse log calculation. This article will guide you through the process of calculating the inverse log on a calculator.Step 1: Understanding the Concept of Inverse LogInverse log, or antilog, is the reverse operation of finding a logarithm. If we have a logarithm equation log_b(x) = y, then the inverse log would be b^y = x. Essentially, were undoing the logarithm function and finding the original value.Step 2: Identify Your Calculators Inverse Log FunctionDepending on your calculator type, you might find a dedicated button for performing inverse log calculations. Common notations include 10^x or e^x these are antilogarithm functions based on base 10 and base e (Eulers number), respectively.For calculators that do not have specific buttons for inverse logs, you can use exponentiation functions instead. For instance, x^y is a common function in many calculators to raise x to the power of y.Step 3: Performing an Inverse Log CalculationTo perform an inverse log calculation on your calculator:1. Enter the value of y obtained from the log equation (log_b(x) = y).2. Press either the 10^x, e^x, or activatethe exponent function (x^y) depending on your calculators interface followed by entering the desired base (if required).3. Press ENTER or =.4. The result displayed will be x which is the inverse log (antilog) of y.Example:Lets assume we have log_10(100) = 2 and need to find the inverse log. In this case, the base is 10.1. Enter the value of 2.2. Press the 10^x button for calculators that require specifying the base, press x^y and then enter 10.3. Press ENTER or =.4. The result displayed: 100, which is the inverse log of 2 at base 10.In conclusion, understanding how to do inverse log on a calculator can save time and effort when dealing with math problems involving logarithms. By following these steps, you can efficiently perform antilog calculations using your calculators existing functions. acidic: An adjective for materials that contain acid. These materials often are capable of eating away at some minerals such as carbonate, or preventing their formation in the first place. base: (in math) A number to be multiplied by itself in a logarithmic statement (and shown as a subscript to the lower right of the base number) or by the number of times called for by an exponent (shown as a superscript to the upper right of that base number). (in chemistry) A chemical that produces hydroxide ions (OH-) in a solution. Basic solutions are also referred to as alkaline. (in genetics) A shortened version of the term nucleobase. These bases are building blocks of DNA and RNA molecules. binary: Something having two integral parts. (in mathematics and computer science) A number system where values are represented using two symbols 1 (on) or 0 (off). chemistry: The field of science that deals with the composition, structure and properties of substances and how they interact. Scientists use this knowledge to study unfamiliar substances, to reproduce large quantities of useful substances or to design and create new and useful substances. computer science: The scientific study of the principles and use of computers. Scientists who work in this field are known as computer scientists. coronavirus: A family of viruses named for the crown-like spikes on their surface (corona means crown in Latin). Coronaviruses cause the common cold. The family also includes viruses that cause far more serious infections, including SARS. COVID-19: A name given the coronavirus that caused a massive outbreak of potentially lethal disease, beginning in December 2019. Symptoms included pneumonia, fever, headaches and trouble breathing. data: Facts and/or statistics collected together for analysis but not necessarily organized in a way that gives them meaning. For digital information (the type stored by computers), those data typically are numbers stored in a binary code, portrayed as strings of zeros and ones. decibel: A measurement scale used for the intensity of sounds that can be picked up by the human ear. It starts at zero decibels (dB), a sound hardly audible to people with good hearing. A sound 10 times louder would be 10 dB. Because the scale is logarithmic, a sound 100 times louder than 0 dB would be 20 dB; one thats 1,000 times louder than 0 dB would be described as 30 dB. digit: (in math) An individual numeral (from 0 to 9) used to represent a number or some part of a number. e: A mathematical constant that never changes. It is roughly, 2.718281828459. e stands for Eulers number, the mathematician who discovered it. Its the base number of a natural logarithm. earthquake: A sudden and sometimes violent shaking of the ground, sometimes causing great destruction, as a result of movements within Earths crust or of volcanic action. economics: The social science that deals with the production, distribution and consumption of goods and services and with the theory and management of economies or economic systems. A person who studies economics is an economist. economy: Term for the combined wealth and resources (people, jobs, land, forests and minerals, for instance)of a nation or region. It is often measuredin terms of jobs and income or in terms of the production and use of goods (such as products) and services (for instance, nursing or internet access). electricity: A flow of charge, usually from the movement of negatively charged particles, called electrons. exponent: A number, shown as a superscript (tiny number to the upper right of some other base number or mathematical expression). An exponent identifies how many times that base number or expression must be multiplied by itself. expression: (in mathematics) A statement that involves combinations of numbers and/or letters (that signify numbers that may vary) and includes directions (or rules) about what to do with those numbers (such as add or divide them, take their logarithm or make combinations of them equal one another). infection: A disease that can spread from one organism to another.Its usually caused by some type of germ. inverse: Something that is the opposite or reverse of another thing, or that moves in the opposite direction to something. irrational: (in math) A number that cannot be written as a whole number or fraction. When written as a decimal number, its digits never end or repeat. Examples are (pi), the ratio of a circles diameter to its circumference (3.14159), and e, Eulers number (2.71828). log: (in math) An abbreviation for logarithm. logarithm: The power (or exponent) to which one base number must be raised multiplied by itself to produce another number. For instance, in the base 10 system, 10 must be multiplied by 10 to produce 100. So the logarithm of 100, in a base 10 system, is 2. In base 10, the logarithm of 1,000 would be 3, the log of 10,000 would be 4, and so on. magnitude: (in geology) A number used to describe the relative size of an earthquake. It runs from 1 to more than 8 and is calculated by the peak ground motion as recorded by seismographs. There are several magnitude scales. One of the more commonly used ones today is known as the moment magnitude. Its based on the size of a fault (crack in Earths crust), how much the fault slips (moves) during a quake, and the energy force that was required to permit that movement. For each increase in magnitude, an earthquake produces 10 times more ground motion and releases about 32 times more energy. For perspective, a magnitude 8 quake can release energy equivalent to detonating 6 million tons of TNT. numerical: Having to do with numbers. octave: (in music) The interval between one note and the note with twice its frequency. There are actually 12 half steps in an octave, all the same size. Octaves are a pattern of sound differentiations typical of Northern and Western music. pandemic: An epidemic that affects a large proportion of the population across a country or the world. perception: The state of being aware of something or the process of becoming aware of something through use of the senses. pH: A measure of a solutions acidity or alkalinity. A pH of 7 is perfectly neutral. Acids have a pH lower than 7; the farther from 7, the stronger the acid. Alkaline solutions, called bases, have a pH higher than 7; again, the farther above 7, the stronger the base. place value system: (in math) Numbers are expressed using 10 symbols 0 to 9 known as digits. When a number gets to be 10 or higher, no new symbols are used. Instead, we start a new column of digits to the left, which describes how many 10s are in this number. After that, we write the digit indicating how many 1s follow it. So the number ten is written 10 (for one 10 and zero 1s). Twenty seven is written 27, because it has two 10s and seven 1s. Once a number exceeds 99, a new column is needed to identify the number of 100s, followed by the number of 10s and 1s. And each time a number exceeds the spaces available, a new column is added, allowing us to show 1,000s, 10,000s, 100,000s, millions and more. radiation: (in physics) One of the three major ways that energy is transferred. (The other two are conduction and convection.) In radiation, electromagnetic waves carry energy from one place to another. Unlike conduction and convection, which need material to help transfer the energy, radiation can transfer energy across empty space. SARS-CoV-2: A coronavirus that emerged in Wuhan, China, in late December 2019. It would go on to cause widespread and sometimes lethal disease throughout China and many other nations. Its name reflects its close similarity to the original coronavirus known as SARS (for severe acute respiratory syndrome). That SARS virus sparked a global outbreak of disease in 2003. sound wave: A wave that transmits sound. Sound waves have alternating swaths of high and low pressure. statistics: The practice or science of collecting and analyzing numerical data in large quantities and interpreting their meaning. Much of this work involves reducing errors that might be attributable to random variation. A professional who works in this field is called a statistician. seismic wave: A wave traveling through the ground produced by an earthquake or some other means. theory: (in science) A description of some aspect of the natural world based on extensive observations, tests and reason. A theory can also be a way of organizing a broad body of knowledge that applies in a broad range of circumstances to explain what will happen. Unlike the common definition of theory, a theory in science is not just a hunch. Ideas or conclusions that are based on a theory and not yet on firm data or observations are referred to as theoretical. Scientists who use mathematics and/or existing data to project what might happen in new situations are known as theorists. virus: Tiny infectious particles consisting of RNA or DNA surrounded by protein. Viruses can reproduce only by injecting their genetic material into the cells of living creatures. Although scientists frequently refer to viruses as live or dead, in fact no virus is truly alive. It doesnt eat like animals do, or make its own food the way plants do. It must hijack the cellular machinery of a living cell in order to survive. wave: A disturbance or variation that travels through space and matter in a regular, oscillating fashion. Share copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Use this log calculator to easily calculate the logarithm of a number with a given base: logb(x). The default base is the natural logarithm e. Quick navigation: The logarithm (log) operation in mathematics is the inverse to exponentiation, meaning that the log of a number is the exponent to which another fixed number called a "base" was raised to produce the number. For example log232 = 5, since 25 = 32. This is an example of a simple logarithm as it basically counts the number of multiplications of the same factor - in this case 2. The notation is logbx or logb(x) where b is the base and x is the number for which the logarithm is to be found. There are several named logarithms: the common logarithm has a base of 10 (b = 10, log10), while the natural logarithm has a base of the number e (the Euler number, ~2.718), while the binary logarithm has a base of 2. The common logarithm has many uses in engineering, navigation, many of the sciences like physics and chemistry. The natural logarithm is widely used in math and physics due to its simpler derivative. The binary logarithm is, of course, mostly used in computer science, e.g. for representing data units. When using our logarithm calculator you need to enter a "Base" of 10 for the common logarithm, 2 for the binary logarithm, and leave the "Base" field empty to get the natural logarithm calculated. The graph above presents the values for the common, natural and binary logarithm functions for the values from 0.1 to 20 (logarithm of zero is not defined). How to calculate logarithms? Certain logarithms can be easy to compute in your mind, e.g. log10(1000) = 3 since 10^3 = 1000. A general solution is to calculate logs using power series or the arithmetic-geometric mean. A pre-calculated table can also be of use if only a range of bases and logarithms are of interest on a daily basis. For anything else it is most convenient to use an online log calculator like this one due to its ease of use. Here are some quick rules for calculating especially simple logarithms. If the base and the number are the same, e.g. log1010, the result is 1 (b1 = b for any b), while if the number is one, logb1 = 0 for any base (b0 = 1 for any b). There are values for which the logarithm function returns negative results, e.g. log20.125 = -3, since 2-3 = 1 / 23 = 1/8 = 0.125. Example log calculations log264 = 6, since 26 = 2 x 2 x 2 x 2 x 2 x 2 = 64. That's a log with base 2, log2. log327 = 3, since 33 = 3 x 3 x 3 = 27. That's a log with base 3. log101000 = 3, since 103 = 10 x 10 x 10 = 1000. That's a log with base 10. Applications of logarithms Logarithmic scales are often used when representing wide-ranging measurements in a visually compelling graph. A prominent example is the decibel scale in which the unit (dB) expresses log-ratios of signal power and amplitude - mostly used for sound waves. pH is a well-known chemistry scale for measuring acidity. Discrete logarithms have uses in public-key cryptography, such as the one used to deliver this log calculator securely to you, making sure no one can eavesdrop on your communication with our website. Another scale which is logarithmic is the Richter earthquake magnitude scale, measuring the earthquake's energy release. Since it is logarithmic, an earthquake of magnitude 5 is 32 times stronger (101.5) than a magnitude 4 one. A magnitude 6 earthquake releases 1,000 times (103) more energy than a magnitude 4 one. Logarithms are used in probability theory, e.g. the law of large numbers according to which the ratio of heads to toes during tosses of a fair coin approaches 1/2 as the number of tosses approaches infinity. Some variables have log-normal distributions. The maximum likelihood estimate occurs at the same parameter-value as a maximum of the log likelihood, and the latter is easier to maximize, especially when there are multiplied likelihoods for independent random variables [1]. The natural logarithm is used in calculating radioactive decay and half-life of radioactive elements - the natural logarithm of 2 is used in the formulas for exponential decay. A reminder: to compute the natural log of a number in this logarithm calculator, simply leave the "Base" field empty. Log calculations occur in fractals, entropy and chaos theory, as well as the analysis of computation complexity of different computer algorithms [2]. They are valuable for describing algorithms in which a larger problem is divided into a set of smaller ones, and then the solutions of the smaller problems are joined to arrive at the solution of the larger problem. 1 Rose C., Smith M.D (2002) "mathStatica: Mathematical Statistics with Mathematica", Springer-Verlag: New York. Sect.11-3 2 Wegener I. (2005) "Complexity theory: exploring the limits of efficient algorithms", Springer-Verlag: Berlin, New York p.1-2 Nothing messes up an equation quite like logarithms. They are cumbersome, difficult to manipulate and a little mysterious for some people. Luckily, there's an easy way to rid your equation of these pesky mathematical expressions. All you have to do is remember that a logarithm is the inverse of an exponent. Although the base of a logarithm can be any number, the most common bases used in science are 10 and e, which is an irrational number known as Euler's number. To distinguish them, mathematicians use "log" when the base is 10 and "ln" when the base is e. To rid an equation of logarithms, raise both sides to the same exponent as the base of the logarithms. In equations with mixed terms, collect all the logarithms on one side and simplify first. The concept of a logarithm is simple, but it's a little difficult to put into words. A logarithm is the number of times you have to multiply a number by itself to get another number. Another way to say it is that a logarithm is the power to which a certain number called the base must be raised to get another number. The power is called the argument of the logarithm.For example, log82 = 64 simply means that raising 8 to the power of 2 gives 64. In the equation log x = 100, the base is understood to be 10, and you can easily solve for the argument, x because it answers the question, "10 raised to what power equals 100?" The answer is 2.A logarithm is the inverse of an exponent. The equation log x = 100 is another way of writing 10_x_ = 100. This relationship makes it possible to remove logarithms from an equation by raising both sides to the same exponent as the base of the logarithm. If the equation contains more than one logarithm, they must have the same base for this to work. In the simplest case, the logarithm of an unknown number equals another number:\(\log x = y\)Raise both sides to exponents of 10, and you get\(10^ {\log x} = 10^y\)Since 10(log x) is simply x, the equation becomes\(x = 10^y\)When all the terms in the equation are logarithms, raising both sides to an exponent produces a standard algebraic expression. For example, raise\(\log (x^2 1) = \log (x + 1)\)to a power of 10 and you get:\(x^2 1 = x + 1\)which simplifies to\(x^2 x 2 = 0.\)The solutions are x = 2; x = 1.In equations that contain a mixture of logarithms and other algebraic terms, it's important to collect all the logarithms on one side of the equation. You can then add or subtract terms. According to the law of logarithms, the following is true:\(\log x + \log y = \log(xy) \,\,\log x \log y = \log \bigg(\frac{x}{y}\bigg)\) Here's a procedure for solving an equation with mixed terms:Start with the equation: For example\(\log x = \log (x 2) + 3\)Rearrange the terms:\(\log x \log (x 2) = 3\)Apply the law of logarithms:\(\log \bigg(\frac{x}{x-2}\bigg) = 3\)Raise both sides to a power of 10:\(\bigg(\frac{x}{x-2}\bigg) = 10^3\)Solve for x:\(\bigg(\frac{x}{x-2}\bigg) = 10^3 \x = 1000x 2000 \-999x = -2000 \x = \frac{2000}{999}=2.002\) Deziel, Chris. "How To Get Rid Of Logarithms" sciencing.com, . 27 October 2020. APA Deziel, Chris. (2020, October 27). How To Get Rid Of Logarithms. sciencing.com. Retrieved from Chicago Deziel, Chris. How To Get Rid Of Logarithms last modified August 30, 2022. Introduction:Antilog, also known as the inverse logarithm, is a mathematical operation used to find the exponent given a base and the logarithm of a number. In simpler terms, antilog helps in discovering what number must be raised to the base logarithm for it to equal a given value. Performing an antilog computation can be a bit challenging without the right tool, but thanks to modern calculators, this task has become much easier. This article will guide you through the process of calculating antilog using different types of calculators.Step 1: Understand the Concept of AntilogBefore diving into how to calculate antilogs on a calculator, its essential first to understand what an antilog is and why its useful. An antilogarithm reverses the process of calculating logarithms, meaning if you have calculated the logarithm of a number (lets call this number Y), its antilogarithm will give you back the original number.Suppose you have a logarithm base value (denoted as B) and a logarithmic value (denoted as X) with the following relationship:logB(Y) = XIn this equation, Y is equal to B raised to the power of X. The antilogarithm calculates this original value:Y = antilogB(X)Step 2: Identify the Type of Calculator You HaveCalculating antilogs on a calculator depends on which calculator model you own. The most common types are scientific calculators and graphing calculators.Step 3: Using a Scientific CalculatorIf you own a scientific calculator, follow these steps:1. Turn on your calculator.2. Enter the logarithmic value (X).3. Look for an antilog or INV button followed by LOG or 10^x depending on your calculators design.4. Press the corresponding button to obtain the antilog value of X.For example, suppose you have the logarithm value X = 2. Calculate its antilog:1. Enter 2 on your calculator.2. Press the antilog or INV followed by LOG or 10^x button.3. The calculated result (Y = 100) should now be displayed on your calculator.Step 4: Using a Graphing CalculatorIf you have a graphing calculator, follow these steps:1. Turn on your calculator.2. Press the MODE button and ensure the calculator is in NORMAL mode.3. Enter the logarithmic value (X).4. Press the 2nd or SHIFT button, then press the LOG or 10^x button to calculate the antilog.5. The result will be displayed on the screen.Conclusion:Calculating antilogs using a calculator is a simple and straightforward process once you understand how logarithms work and how to use your specific calculator model. Whether you have a scientific or graphing calculator, calculating antilogs is an essential mathematical skill that you can master with ease by following this guide. Same as for positive numbers. On a scientific calculator, you press (base number) (inverse) (log) (your number). You can also use the power function: (base) (power) (exponent).An antilog is just a power. The antilog (base 10) of 3 is 10 to the power 3.As to the definition, 10 to the power -3 is defined as 1 / (10 to the power 3).Same as for positive numbers. On a scientific calculator, you press (base number) (inverse) (log) (your number). You can also use the power function: (base) (power) (exponent).An antilog is just a power. The antilog (base 10) of 3 is 10 to the power 3.As to the definition, 10 to the power -3 is defined as 1 / (10 to the power 3).Same as for positive numbers. On a scientific calculator, you press (base number) (inverse) (log) (your number). You can also use the power function: (base) (power) (exponent).An antilog is just a power. The antilog (base 10) of 3 is 10 to the power 3.As to the definition, 10 to the power -3 is defined as 1 / (10 to the power 3). How to Clean Old Brass Buttons How to Insert a Backslash on a Dell Keyboard How to Set the Analog Time on a Casio HDC... Casio Fx-115D Instructions Instructions for a Casio MS-80VER Instructions for Idect Phones How to identify tablets & capsules by color... How to subtract 20% on a calculator How to turn on presentation mode for Windows... How to calculate the corrected WBC count How to Use the Euro Symbol on My Laptop Keyboard How to Activate a Mini Cooper Key Fob How to Make a Bullet Point Using the Alt... How to make a butterfly on the keyboard Logarithms are easy to understand. They are functions that help you determine what exponents must be multiplied into a specific number.As you move on to learn advanced math, you will need to use scientific calculators to calculate log values quickly.These calculators are very different from basic and business calculators and come loaded with functions that help solve physics, engineering, and trigonometric problems.Thankfully, working with logarithmic functions on a scientific calculator is easy after you learn to do it right. Calculating Common Logarithms with A Scientific CalculatorStep #1: Enter the NumberTurn your calculator on, and type in the number you want to calculate the common logarithm (log base 10) of.Lets use 1000 as an example.Step #2: Press the Log ButtonTo apply the log function on the number, click on the log button on the calculator.A number will appear on the screen immediately after you click the log button. The figure represents the number of times you have to multiply 10 with itself to get the original number.Step #3: Verify the Answer (Optional)You can go ahead and check your work to ensure you got all the steps right. In our example, 3 appears as the result. Multiplying 10 with itself thrice gives us 1000, which means the answer is correct.While there is no antilog calculator in scientific calculators, you can use the result of the logarithmic calculation as an exponent to 10 to find the antilog of any log.Calculating Natural Logarithms With A Scientific CalculatorNatural logarithms are the logarithms that have base e, and on most scientific calculators, these are represented by the ln button.To use the ln key to find a logarithm with base e:Step #1: Enter the NumberEnter the number you want to find the natural logarithm of. Lets say its 10.Step #2: Find and Press the ln ButtonYou must then click on the ln button on the calculator. A result will appear immediately.The result is the number to which the irrational base e must be raised to obtain the argument.Calculating Log with Other Bases on A Scientific CalculatorMost scientific calculators only come with the log and ln buttons. There is no button for finding logarithms with other bases.To work out a logarithm with another base, you must use the change of base formula, which is:a=a bSo, if you want to find the value of 3, you must calculate 3 2 .To do this on your scientific calculator:Step #1: Enter the NumeratorTo do this, type in the argument of your logarithm into the calculator. In our example, the argument is 3.Then, hit the ln button on the calculator. But dont hit the = just yet.Step #2: Enter the DenominatorAfter entering the numerator, find and click on the divide button on the calculator. You must then feed the denominator into the calculator.To do that, hit the ln button first. The natural log function will appear with a single parenthesis. (clubdeportestolima.com.co) You must then type in the argument of the logarithm, which is 2 in this example.To trigger the calculation, enter an