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This free service allows you to calculate percentages Convert a percentage to a number Convert a number to a percentage Percentage increase / decrease Percentage change between two values How to use our calculator You find here several easy percentage calculators with examples. You can use our easy percent calculators to compute percentages. You can use comma or dot as a decimal separator. You don't have to use thousands separators because this calculator treats both comma and dot as a decimal separator. In order to calculate percentages online, click the button. The result appears on the next page. If there are errors, the result field will be empty. Try this handy online tool to check your problems on percentages. Find the percentage change between two numbers or calculate a percent of a value before and after. Our purpose is to offer the best online percentage calculator with fast and useful answers. Whenever you need to calculate percentages or find out how to calculate a percentage, this free website will help you. We hope that you enjoy the time you spend on the website. Please feel free to send us your comments or suggestions. Calculation of percentages (theory and examples) We explain how percentages are calculated and give some examples. 1. Introductory example Let's look at an example with different ways of describing a ratio: 20 out of 80 British people believe the sun revolves around the earth. 5 out of 20 British diplomats are women. 25 out of 100 British households are single-person households. Comparing these ratios might be a bit complicated, but if we write them in terms of percentages, they are equivalent: 25%, which is 25 out of 100. This example shows the practicality of the widespread use of percentages, which is why we need to be able to understand and calculate percentages. 2. Definition and calculation of percentages Percentage is a way of referring to a ratio by referring to the number 100. To calculate a percentage, we identify the total number by 100%. The percentage n % means n individuals out of 100. For example: 50% is half of the total (50 out of 100). 25% is a quarter of the total (25 out of 100). 20% is one-fifth of the total (20 out of 100). Example We calculate the ratio of blonde students in a class of 80 students, of which 12 are blonde. Since there are 12 blonde students out of a total of 80 students, the ratio of blonde students is: $R = 12 / 80$ Note that in the denominator we write the total number of students and in the numerator the number of blonde students. Since we want to write the ratio relative to 100, we write 100 in the numerator: $R = x / 100$ Since the ratio must be equal, we set both expressions equal to calculate $12 / 80 = x / 100$ We solve the first-degree equation (the 100 in the denominator passes multiplicatively to the other side): $12 / 80 = x / 100 \Rightarrow x = 12 * 100 / 80 \Rightarrow x = 15$ So we find that 15 out of 100 students are blonde, so 15% of the students are blonde. 3. Rule of three The higher a ratio is, the higher the percentage is. This means that the percentage is directly proportional to the ratio. Therefore, we can calculate the percentage by applying a simple rule of three. Example: Recall the above example: in a class of 80 students, 12 are blonde. We calculate the percentage of blonde students by applying a rule of three (using a table): StudentsPercentage 801001100/80 1212 * 100 / 80 = 15% Example one 60% of 900 = ??? (900/100) x 60 = 540 First we check how much is one percent: we divide 900 by 100. We get 9. Then we multiply one percent by 60 (60% = 60 per hundred = 60 percent) so 9 x 60 = 540. Example two 90 = ??? % of 125 90 x (100/125) = 72 % First we calculate how much is one unit: we divide 125 by 100. Then we multiply one unit by 90 because we want to know how much is 90 units. In this way we calculate the percentage. Example three What is the % change from 150 to 190? (190-150) x (100/150) = 26.66 % 150 represents 100%. So the percent of one unit is represented by 100/150. 190-150 is 40. So 40 units present 40 x (100/150) = 26.66 % In this way we calculate the percentage increase or decrease. One percent is one hundredth. We use a % to indicate it. So 5 percent is the same as 5%, 0.05, 5/100 or five hundredths. It is that simple! That is nice, but we usually do not only use percentages. Sometimes we want to show the ratio between 2 numbers. For example: what is 40% of 20? That's 40 hundredths of 20, so if we share 20 cookies in 100 equal pieces (good luck with that!), 40 of those pieces are our 40% of 20 cookies. Let's count: 40/100 * 20 = 8. A little trick does apply here: if you want to divide by a hundred, just move the comma two places to the left. In our calculation, 40/100 * 20 we could also do so: (40 * 20) / 100 (it is the same). 40 * 20 is 800. Move the comma in 800 2 places to the left and you get 8.00. Enter these values at the top of the page, 40 and 20. Then you get "40% of 20 is 8". In another case you want to indicate, for example, how many percent a number has descended or increased. For example, if you have 10 apples and you eat 2 of them ... Then you have lost 20% apples. Why? Because 8 is 80% of 10. All apples were 100%, now we still have 80%, so the number of apples has descended by 20% (because 100 - 80 = 20). Use our percent increase tool for this. The term percent comes from the Latin per center (per hundred) and is indicated by the sign "%", or simply "pct" or "percent". In mathematics, a percentage is a number in the fraction of 100. American people say percent, British people prefer to use per cent. Percentages for solutions A percent does not always have to indicate a few hundredths of the whole. This way, solutions are also shown in percentages. A physiological salt solution is, for example, referred to as a solution of 0.9% kitchen salt. This 0.9% means that the solution contains 0.9 grams of salt per 100 mL (= 100 grams). The percentage here therefore refers to the weight. The volume percentage often states the addition: "vol", then we get for example: 14% vol or 14 vol%. A percentage point, also written as %-point, is used to indicate the absolute difference between values expressed as a percentage. A percent is therefore a hundredth part, while a percentage point is a unit of account that expresses the change of a percentage. If the interest on your savings account rises from 2% to 3%, you can express this as "an increase of 50% of the old interest rate", or as "an increase of 1 percentage point" (which is 1% of the whole). An "increase of 1%" is not clear, because it could indicate an increase of 1% of 2 (0.02) which brings the total to 2.02% instead of 3%. 1 per mille is 1 thousandth part, the word per mille also means "per thousand". A per mille is noted as ‰, such as the percent (%) but with 3 "zeros" instead of 2. Here, 1 per mille = 0.1%. For more information on percents click here: Wikipedia Olga Ivanova, olya.ivanova2015@gmail.com Web 2.0 scientific calculatorThis calculator performs all the basic mathematical operations that you may need in everyday life. Examples are given for all possible actions. If you need more functions, use a scientific calculator. More:Scientific CalculatorHow to use the calculatorButtonsUsage1 2 3 4 5 6 7 8 9 0Entering numbers+ Performing basic mathematical operations (addition, subtraction, multiplication, division):2 + 3 = 5=Getting the result of the calculationClearing the calculator screenDeleting the last entered symbol:1 2 3 4 123Changing the sign of a number from positive to negative and vice versa:3 3()Entering parentheses:(2 + 2) 2 = 8Separating the fractional part in a decimal fraction:0 . 1 + 0 . 2 = 0.3More:FractionsDividing the numerator and denominator in a common fraction:5 8 1 4 = 3/8More:Fractions1/xCalculating the reciprocal of a number:5 1/x = 0.2x2 x3 xy10XKraising to a power:3 x2 = 92 xy 4 = 165 10X = 100 000More:Exponentiation3 xy2Finding the root of a number:1 2 5 3x = 51 6 xy 4 = 2More:Root of a number,Separating function arguments:log 9 , 3 = 2logCalculating the logarithm:log 1 6 , 2 = 4More:LogarithmsEntering the mathematical constant e:log 1 , e = 0 2018-2025 OK Calculatormail@okcalc.comPrivacy Policy2024-01-24home / math / percentage calculator Please provide any two values below and click the "Calculate" button to get the third value. Percentage Calculator in Common Phrases Percentage Difference Calculator Percentage Change Calculator Please provide any two values below and click the "Calculate" button to get the third value. In mathematics, a percentage is a number or ratio that represents a fraction of 100. It is one of the ways to represent a dimensionless relationship between two numbers; other methods include ratios, fractions, and decimals. Percentages are often denoted by the symbol "%" written after the number. They can also be denoted by writing "percent" or "pct" after the number. For example, 35% is equivalent to the decimal 0.35, or the fractions . Percentages are computed by multiplying the value of a ratio by 100. For example, if 25 out of 50 students in a classroom are male, . The value of the ratio is therefore 0.5, and multiplying this by 100 yields: 0.5 100 = 50 In other words, the ratio of 25 males to students in the classroom is equivalent to 50% of students in the classroom being male. Percentage formula Although the percentage formula can be written in different forms, it is essentially an algebraic equation involving three values. P V1 = V2 P is the percentage, V1 is the first value that the percentage will modify, and V2 is the result of the percentage operating on V1. The calculator provided automatically converts the input percentage into a decimal to compute the solution. However, if solving for the percentage, the value returned will be the actual percentage, not its decimal representation. EX: P 30 = 1.5 P = = 0.05 100 = 5% If solving manually, the formula requires the percentage in decimal form, so the solution for P needs to be multiplied by 100 in order to convert it to a percent. This is essentially what the calculator above does, except that it accepts inputs in percent rather than decimal form. Percentage difference formula The percentage difference between two values is calculated by dividing the absolute value of the difference between two numbers by the average of those two numbers. Multiplying the result by 100 will yield the solution in percent, rather than decimal form. Refer to the equation below for clarification. Percentage Difference = 100 EX: = = 0.5 = 50% Percentage change formula Percentage increase and decrease are calculated by computing the difference between two values and comparing that difference to the initial value. Mathematically, this involves using the absolute value of the difference between two values then dividing the result by the initial value, essentially calculating how much the initial value has changed. The percentage increase calculator above computes an increase or decrease of a specific percentage of the input number. It basically involves converting a percent into its decimal equivalent, and either subtracting (decrease) or adding (increase) the decimal equivalent from and to 1, respectively. Multiplying the original number by this value will result in either an increase or decrease of the number by the given percent. Refer to the example below for clarification. EX: 500 increased by 10% (0.1) 500 (1 + 0.1) = 550 500 decreased by 10% 500 (1 0.1) = 450 home / math / scientific calculator This is an online javascript scientific calculator. You can click the buttons or type to perform calculations as you would on a physical calculator. 789+Back 456Ans 123M+ 0.EXPM- RNDAC=MR Loading...Use our percentage calculator to work out increases, decreases or percentage differences. Common uses include calculating tax, savings increases,tips on a restaurant bill, or cash back on purchases.What is a percentage?A percentage is a number that expresses a portion or proportion of a whole in relation to 100. As an example, if 80% of a class passed an exam, it means that80 out of every 100 students in the class achieved a passing grade. Percentages are represented by the symbol "%" and provide a standardized method to compare quantities or indicate changes. You'll find them used infields such as finance and statistics, and you'll likely use them within everyday situations, such as splitting a bill, calculating a gratuity or working out a discount.Let's take a look at how to calculate percentages.What is the percentage of Y?To calculate a percentage based upon a part (X) and a total (Y), divide the value of the part (X) by the total or whole amount (Y). Then, multiply the result by 100.As an example, if you want to find what percentage 15 is of 300, you would divide 15 by 300, resulting in 0.05. Multiplying 0.05 by 100 gives you 5%.Divide the part figure by the whole figure. So, in the case of our example: 15/300 = 0.05.Convert this into a percentage figure by multiplying by 100. So, 0.05 x 100 = 5.This gives you your answer. 15 is 5% of 300.The formula for the calculation looks like this:Percentage = (Part / Whole) 100You can find out more about how to calculate simple percentage increases and decreases in our article here.Let's look at some other types of percentage calculation...How to calculate X percent of YIn order to explain how to do this calculation, we'll replace the X and Y with a couple of figures. Let's say the question is: What is 10% of 200?. Here's howto do it:Change the percentage figure into a decimal by dividing the figure by 100. So, 10% becomes 10/100 = 0.1.Multiply the decimal figure by the full amount. So, 0.1 x 200 = 20.This gives you your answer. 10% of 200 is 20.The formula for this calculation looks like this:Part = (X / 100) YContinuing the theme, let's add some example figures into our calculation. Let's say the question is: What is the percentage increase from 40 to 68?We can use the percentage change calculator. Or we can work the calculation out manually...Subtract X from Y and then divide it by X. In the case of our example it would be (68-40) / 40. Note that we've put brackets around the first part to ensure this is done first (PEMDAS).(68-40) / 40 gives us a result of 0.7. To convert this into a percentage we multiply it by 100. So, 0.7 x 100 = 70.This gives you your answer. The percentage increase from 40 to 68 = 70%.Here's the formula for this calculation:Percentage = (Y - X) / X 100If you're trying to calculate a percentage pay increase for work, you can use our pay raise calculator for this.X is Y percentage of what number?Let's again replace the X and Y with a couple of figures. Let's say the question is: 5 is 20% of what number?Change the Y percentage figure into a decimal. We do this by dividing the figure by 100. So, 20% becomes 20/100 = 0.2.Divide our X figure by our Y figure. So, 5 / 0.2 = 25.This gives you your answer. 5 is 20% of 25.Here's the formula:Whole = X / (Y / 100)To check your calculations, you can use the percentage calculator at the top of the page.If you're using percentages to work out cash back on purchases, give our Cash Back Calculator a try for a quick breakdown based on the cash back rate.I hope you've found our calculator and article useful. Having a percentage calculator at your fingertips can come in quite handy, especially if you know VAT will be added to an item. But, if it is not listed or if VAT has been added, you may want to know the original price before the 20% increase. Of course there are a million and one other reasons why someone would want to figure out percentages, particularly businesses, so these handy online software programs are amazingly time efficient and easy to use.Keeping Up with InflationThere are also times when businesses need to increase their list prices to keep up with inflation. This is extremely important at the moment in the UK because inflation is on the rise at historic levels and you may need to adjust your profit margins in order to make the business financially stable. If you know that your utilities will be rising at 6%, then you know that to stay in business that money needs to come from somewhere. In retail, those rises are generally covered with price mark-ups. An online percentage calculator sure beats pulling out a handheld or desktop calculator because everything is on the screen in front of you. In this way you can see if youve entered all values properly and save you manually working out the percentage increase.How a Percentage Calculator WorksAn online percent calculator usually has five different fields on the screen. Whether you want to decrease an item by a certain percentage or increase the amount by a certain percentage, you simply need to know which fields to fill in. For example, most online percentage calculator will have fields similar to the following:Original value/pricePercentage of changeAmount of changeValue after increasingValue after decreasingPercentage Difference CalculatorsIf youre looking to calculate the change in prices or numbers, a percentage difference calculator can allow you to figure out: IncreasesA percentage increase calculator will allow you to see the new number after an increase of your choice has been applied.For example, lets say that we want to show what an item cost before adding VAT. We know that the item is selling for 220 after VAT, so what was the original list price? In this case you would place the 220 in the Value after increasing field and 20 in the Percentage of change field. You will see that the Original Value was 183 and that it changed by 36.7 units (pounds). Now you know that government is getting 36.70 on an item you are paying 183 to purchase. 220 after VAT.DecreasesYou can also use a percentage decrease calculator to see how much an item originally cost if you have the mark-down price (discounted price) if the original price isnt listed. There are so many things you can do with a free tool of this type that you should bookmark it on your browser so that you can call it up instantly as the need arises. They are easy to use if you have at least two values to work with so take the time to find one online and save it to your favourites. Percentage Calculator is a free online tool to calculate percentages. Tips: Use tab to move to the next field. Use shift-tab to move to the previous field. Press enter to calculate. This website is designed to help you quickly and easily calculate percentages for a variety of purposes. Whether you're calculating discounts, calculating tips, or trying to figure out how much something has increased or decreased in value, our percentage calculator can help. FAQ What is a percentage? Percentage is a way of expressing a number as a fraction of 100. It is commonly used to represent a portion of a whole or to compare two numbers. Percentages are often denoted with the symbol "%". For example, if there are 100 cars in a garage and 25 of them are white, we could say that 25% of the cars in the garage are white. How do you calculate a percentage? To calculate a percentage, you typically divide the part (the smaller value) by the whole (the larger value), and then multiply the result by 100. This gives you the percentage value as a number between 0 and 100. For example, if you have 50 apples and you want to know what percentage of them are red, and 20 of them are red, you would divide 20 by 50 to get 0.4, then multiply by 100 to get 40%. Why percentages matter? Percentages are used in a wide variety of contexts, from calculating discounts and taxes to measuring changes in stock prices and economic indicators. Understanding how percentages work can help you make more informed decisions in a variety of areas, from personal finance to business management. 2007 - 2025 J2 Digital Do not share my Personal Information Cookie Settings Help Privacy A simple online calculator which can be used by any online device, loaded full screen.This is a basic online calculator, use the menu to access more detailed online calculators for tax, math, physics, finance and more. iCalculator - Free Online calculators for everyday business and personal useFind this useful? Leave a rating and let us know.What is an Online Calculator?An online calculator is a calculator that can be accessed using a device capable of accessing the internet. Online Calculators are accessed via mobile phone apps, desktop apps and or web browsers. The online calculator is loaded and updated whilst connection to the internet is live. If you are accessing the online calculator through a mobile web app, you may be able to access the online calculators whilst offline, depending on your mobile device settings. Each time you access an online calculator, it will update and provide the latest settings. All other devices accessing the online calculators will simply load the online calculator directly in a browser and have instant access to the latest version of the online calculator without having to install any additional software. All our online calculators and free to use within the iCalculator site.How do I access the Online Calculator?In order to access the online calculators you will need a device capable of accessing the internet and running a web browser. You will also need access to the internet to use the online calculators. You need to provide your own device and gain access to the internet independently, iCalculator does not provide those, we simply provide the online calculator for you to use for free once you have accessed the online calculator on our website. Please see our Terms of Use if you have any additional questions.

How much is 3.5 of 350 000. What is 3.5 of 345 000. 3 of 365 000. 3.5 of 10 000. 3.5 of 360 000. 3.5 of 365.