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This mixed number calculator (also a mixed fraction calculator) will help you solve any issues with mixed numbers: • Adding and subtracting mixed fractions? Here it is✔ • Multiplying and dividing mixed numbers? Of course!✔ • Simplifying mixed fractions? You're covered✔ • Mixed number to decimal and decimal to mixed number conversions? Right here!✔ That is the power of the mixed number calculator. Scroll down to learn what a mixed number is. After you have found the mixed number definition, you can then read more about the operations you can do to mixed fractions. However, if this is the start of your journey into the world of fractions, the versatile fraction calculator is a must! A mixed number, also called a mixed fraction, is one of the ways to represent a fraction. In mixed fractions, you have a whole number, and a proper fraction put together – and that's where the name comes from; you're actually mixing two types of numbers! Examples of mixed fractions are: 1 whole cake and 4 slices out of 6 of another → 1461\frac{4}{6}164 1 whole chocolate bar and an additional 3 rows out of 5→ 1351\frac{3}{5}153 2 whole oranges and 5 segments out of 8 from one more → 2582\frac{5}{8}285 There's also another representation that can show the same amount – an improper fraction. Look at the image again – what will happen if you add all equal slices together instead of taking the whole items separately?That's how improper fractions work – they show how many parts you have, and they don't specify if you have whole items. It's still the same number, just written differently! Now that you know the mixed number definition, read the section below on how to turn a fraction into a mixed number (and vice versa). In this section, we'll show you how to convert between mixed numbers and improper fractions. Mixed number to an improper fraction, e.g. 3143\frac{1}{4}341 Multiply the whole number by the denominator: 3×4=123 \times 4 = 123×4=12. Add the result to your numerator: 12+1=1312 + 1 = 1312+1=13. That's your new numerator – write it on top of your denominator: 134\frac{13}{4}413. Improper fraction to a mixed number, e.g. 176\frac{17}{6}617 Divide the numerator by the denominator (the top number by the bottom number): 17/6=217 / 6 = 217/6=2 remainder 555. Take the whole number from the division – it's the whole part of the mixed number: 222. Find the fractional part: the remainder from the division is the new numerator, and the denominator stays the same as in the original fraction: 56\frac{5}{6}65. Put two numbers together – that's your mixed number: 2562\frac{5}{6}265. Note that what we present here is just a condensed version of the step-by-step instructions – if you need a more thorough explanation, check out our dedicated improper fraction to mixed number calculator and mixed number to improper fraction calculator. There are two popular ways of adding mixed numbers. Let's check it with the example of adding 2252\frac{2}{5}2522 and 1121\frac{1}{2}121. Method 1: adding whole numbers and fractions separately As the number is mixed, you can do the adding operation separately on the whole part and fractional part: At first, add whole numbers: 2+1=32 + 1 = 32+1=3 Next, add the two fractional parts. In our case, the fractions have uneven denominators, so you need to find their least common multiple: LCM(2,5)=10\text{LCM}(2,5) = 10LCM(2,5)=10 25+12=410+510=910\frac{2}{5} + \frac{1}{2} = \frac{4}{10} + \frac{5}{10} = \frac{9}{10}52+21=104+105=109 Put the two parts together: 39103\frac{9}{10}3109 For our example, that's all you need to do, but it may happen that adding fractions will result in an improper fraction – then, you'll need to change it into a mixed number. Take a look at an example – adding 2352\frac{3}{5}253 and 1121\frac{1}{2}121: 235+1122\frac{3}{5} + 1\frac{1}{2}253+121 2+1=32 + 1 = 32+1=3 35+12=610+510=1110=1110\frac{3}{5}+\frac{1}{2} = \frac{6}{10} + \frac{5}{10} = \frac{11}{10} = 1\frac{1}{10}53+21=106+105=1011=1101 So 3+1110=41103 + 1\frac{1}{10} = 4\frac{1}{10}3+1101=4101 Method 2: Converting mixed numbers to improper fractions Let's start by converting our mixed numbers to their equivalent improper fractions: 225=1252\frac{2}{5} = \frac{12}{5}252=512 112=321\frac{1}{2} = \frac{3}{2}121=23 Do the standard addition of fractions with uneven denominators: 125+32=2410+1510=3910\frac{12}{5} + \frac{3}{2} = \frac{24}{10} + \frac{15}{10} = \frac{39}{10}512+23=1024+1015=1039 Finally, convert your result back into a mixed number: 3910=3910\frac{39}{10} = 3\frac{9}{10}1039=3109 In our mixed number calculator, we've implemented the latter method. Give it a go! Subtracting mixed fractions is similar to adding mixed numbers: all in all, the only difference is the sign. However, things may become a little bit more complicated in certain special cases: if the fractional part of the first mixed number is smaller than the fractional part of the second mixed fraction. In such a case, you should regroup the whole and fractional parts, which may be a bit confusing for some people (check how regrouping works with this Khan Academy video). To avoid this problem, use the second method for subtracting mixed fractions – that is, changing your mixed fractions to improper fractions. This technique will ensure that the steps are the same, no matter what the fractions are. To multiply two mixed numbers, you should again use the mixed number ↔ improper fraction conversion. Let's transform a multiplying mixed fractions concept into a word problem: You're a big fan of pumpkin pie If you could, you would eat a whole pie every day. Unfortunately, your mum doesn't let you (well, she knows what's good for your health, right?). She imposed the rule that you can eat only one and a half pumpkin pies per week – and you can have an equal slice of the pie every day. The question is, how many pies would you eat in two weeks and five days – more or less than four? Let's have a look at the step-by-step instruction and solution: Change your mixed numbers to improper fractions: You can write one and a half pie as 1121\frac{1}{2}121 : 112=321\frac{1}{2} = \frac{3}{2}121=23, and two weeks and five days as 2572\frac{5}{7}275: 257=1972\frac{5}{7} = \frac{19}{7}275=719. Multiply the numerator by the other numerator and the denominator by the other denominator: 32×197=3×192×7=5714\frac{3}{2} \times \frac{19}{7} = \frac{3\times 19}{2\times 7} = \frac{57}{14}23×719=2×73×19=1457 Change the result into a mixed fraction: 5714=4114\frac{57}{14} = 4\frac{1}{14}1457=4141 Ooops. That's more than four pies! Type the numbers into the mixed number calculator to verify the result. If you are on the hunt for more examples and instructions on how to multiply fractions with mixed numbers or whole numbers, make sure to look at our comprehensive multiplying fractions calculator. We will explain division as quickly as possible – dividing mixed numbers is very similar to multiplying mixed fractions. Only one additional step is needed – to get the reciprocal of your second fraction (divisor). If you don't know what reciprocal means, its just flipping the fraction upside down. If you wanted to divide mixed numbers 1121\frac{1}{2}121 and 2572\frac{5}{7}275, you would: Change the mixed numbers to improper fractions: 112=321\frac{1}{2} = \frac{3}{2}121=23, 257=1972\frac{5}{7} = \frac{19}{7}275=719 Find the reciprocal of the second fraction: 197→719\frac{19}{7} → \frac{7}{19}719→197 Multiply the fractions (the numerator by the other numerator and the denominator by the other denominator): 32×719=(3×7)(2×19)=2138\frac{3}{2}\times \frac{7}{19} = \frac{(3\times 7)}{(2\times 19)} = \frac{21}{38}23×197=(2×19)(3×7)=3821 Ok, we have to confess – we're sometimes a bit lazy And that's the case here: we don't want to repeat ourselves too much! Because why should we write the same thing again and again if we've already done it? Check out our other awesome calculators and read the detailed explanations on the mixed number to decimal or decimal to mixed number conversions! The decimal to fraction calculator has a great section on how to turn any fraction into a decimal. Of course, the instruction also works for mixed number to decimal conversion Our fraction to decimal calculator presents two different methods on how to deal with fractions to decimal conversions – and mixed number to decimal is no exception. Pop in and have a good read! The proper fraction 3/4 is simpler and does not require conversion into a mixed number since it is already less than 1. As a proper fraction, @$\begin{align*}\frac {3}{4}\end{align*}@$ remains @$\begin{align*}\frac {3}{4}.\end{align*}@$ Understanding Proper Fractions A proper fraction is when the numerator is smaller than the denominator, indicating a part less than the whole. In this case: Let's examine the proper fraction @$\begin{align*}\frac {3}{4}\end{align*}@$. Step 1: Confirm the numerator (3) is less than the denominator (4).This condition holds as 3 is indeed less than 4. Step 2: There is no need for conversion as the fraction is already proper. The fraction @$\begin{align*}\frac {3}{4}\end{align*}@$ remains @$\begin{align*}\frac{3}{4}\end{align*}@$ To learn more about proper fractions and their characteristics, click here! Do math calculations with mixed numbers (mixed fractions) including fractions, integers, mixed numbers and improper fractions. The Mixed Numbers Calculator can add, subtract, multiply and divide mixed numbers and fractions. What is a Mixed Number? A mixed number is a positive or negative integer and a proper fraction, together. An integer is a whole number without a decimal, and a proper fraction is a fraction where the top number is smaller than the bottom number. What Can the Mixed Numbers Calculator Do? This online calculator does simple math operations on whole numbers, integers, mixed numbers, fractions and improper fractions by adding, subtracting, dividing or multiplying. The answer is a reduced fraction and a mixed number if it exists. Enter mixed numbers, whole numbers or fractions in the following formats: Mixed numbers: Enter as 1 1/2 which is one and one half or 25 3/32 which is twenty five and three thirty seconds. Use one space between the whole number and fraction, and use a forward slash to input fractions. Whole numbers and positive or negative integers Fractions: Enter as 3/4 which is three fourths or 3/100 which is three one hundredths Add Mixed Numbers using the Adding Fractions Formula Convert each mixed number to an improper fraction: Multiply the whole number by the denominator, then add the numerator. Place that result over the denominator. Use the formula for adding fractions: a/b + c/d = (ad + bc) / bd Reduce fractions and simplify if possible Equation to Add Fractions \(\dfrac{a}{b} + \dfrac{c}{d} = \dfrac{(a \times d) + (b \times c)}{b \times d} \) Example Add 1 2/6 and 2 1/4 \(1 \dfrac{2}{6} + 2 \dfrac{1}{4} = \dfrac{8}{6} + \dfrac{9}{4} \) \(= \dfrac{(8 \times 4) + (9 \times 6)}{6 \times 4} \) \(= \dfrac{32 + 54}{24} = \dfrac{86}{24} = \dfrac{43}{12} \) 1 2/6 + 2 1/4 = 8/6 + 9/4 = (8*4 + 9*6) / 6*4 = 86 / 24 So we get 86/24 which simplifies to 3 7/12 Subtract Mixed Numbers using the Subtracting Fractions Formula Convert each mixed number to an improper fraction: Multiply the whole number by the denominator, then add the numerator. Place that result over the denominator. Use formula for subtracting fractions: a/b - c/d = (ad - bc) / bd Reduce fractions and simplify if possible \(\dfrac{a}{b} - \dfrac{c}{d} = \dfrac{(a \times d) - (b \times c)}{b \times d} \) Example Subtract 2 1/4 from 1 2/6 1 2/6 - 2 1/4 = 8/6 - 9/4 = (8*4 - 9*6) / 6*4 = -22 / 24 Reduce the fraction to get -11/12 Multiply Mixed Numbers using the Multiplying Fractions Formula Convert each mixed number to an improper fraction: Multiply the whole number by the denominator, then add the numerator. Place that result over the denominator. Use the formula for multiplying fractions: a/b * c/d = ac / bd Reduce fractions and simplify if possible Equation to Multiply Fractions \(\dfrac{a}{b} \times \dfrac{c}{d} = \dfrac{a \times c}{b \times d} \) Example Multiply 1 2/6 by 2 1/4 1 2/6 * 2 1/4 = 8/6 * 9/4 = 8*9 / 6*4 = 72 / 24 Reduce the fraction to get 3/1 and simplify to 3 Divide Mixed Numbers using the Dividing Fractions Formula Convert each mixed number to an improper fraction: Multiply the whole number by the denominator, then add the numerator. Place that result over the denominator. Use the formula for dividing fractions: a/b ÷ c/d = ad / bc Reduce fractions and simplify if possible Equation to Divide Fractions \(\dfrac{a}{b} \div \dfrac{c}{d} = \dfrac{a \times d}{b \times c} \) Example Divide 1 2/6 by 2 1/4 1 2/6 ÷ 2 1/4 = 8/6 ÷ 9/4 = 8*4 / 9*6 = 32 / 54 Reduce the fraction to get 16/27 Related Calculators To do math on simple proper or improper fractions use the CalculatorSoup® Fractions Calculator. This calculator simplifies improper fraction answers into mixed numbers. If you want to simplify an individual fraction into lowest terms use our Simplify Fractions Calculator. To learn how to factor numbers to find the greatest common factor (GCF) see the Greatest Common Factor Calculator. If you are simplifying large fractions by hand you can use the Long Division with Remainders Calculator to find whole number and remainder values. Step 1Set up the division problem in long division format.Step 2Divide by . Place this digit in the quotient on top of the division symbol.Step 3Multiply the newest quotient digit by the divisor .Step 5Bring down the next number of the dividend.Step 6Divide by . Place this digit in the quotient on top of the division symbol.Step 7Multiply the newest quotient digit by the divisor .Step 9The result of division of is with a remainder of . Enter YOUR Problem Enter the improper fraction in the fields below to convert it to a mixed number. The calculator shows all the work so you can follow along and learn the steps. Convert the fraction to a mixed number by using long division to find the quotient and remainder5÷3=1R2The quotient will be the whole number in the fraction, and the remainder will be the numerator in the mixed fraction53=123 Learn how we calculated this below Add this calculator to your site You might also like our calculator to convert a mixed number to an improper fraction. How to Convert an Improper Fraction to a Mixed Number An improper fraction is a fraction where the numerator is greater than or equal to the denominator. Therefore, the value of the fraction is greater than or equal to 1. Step One: Use Long Division The first step in the conversion is to use long division to find the quotient and the remainder. These will be used in the next step. When doing long division with a fraction, the numerator will be the dividend, and the denominator will be the divisor. For example, let’s solve the quotient and remainder of 7/3. First, add the numerators: 73 = 7 ÷ 3 7 ÷ 3 = 2 R1 Thus, the quotient is 2, and the remainder is 1. Step Two: Rewrite the Quotient and Remainder to the Mixed Number The second step is to rewrite the fraction as a mixed number using the quotient and remainder from the previous step, along with the original denominator. To convert, set the quotient as the whole number, the remainder as the numerator, and the original denominator as the denominator. For example, let’s use the quotient and remainder from the previous step to rewrite 7/3 as a mixed number. quotient = 2 remainder = 1 original denominator = 3 Using these values, the rewritten mixed number is: 2 13 That’s it! You have now rewritten an improper fraction as a mixed number in two simple steps. This method works great for converting a fraction to a mixed number, but you might also like our fraction simplifier to simplify fractions smaller than 1. For calculation, here's how to convert 3/4 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 2 For calculation, here's how to convert 23/4 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 3 For calculation, here's how to convert 23/2 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 4 For calculation, here's how to convert 23/3 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 7.6666666666667 => 7; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 5 For calculation, here's how to convert 23/5 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 6 For calculation, here's how to convert 23/6 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 3.8333333333333 => 3; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 7 For calculation, here's how to convert 23/7 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 3.2857142857143 => 3; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 8 For calculation, here's how to convert 23/8 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 9 For calculation, here's how to convert 23/9 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 2.5555555555556 => 2; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 10 For calculation, here's how to convert 23/10 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 11 For calculation, here's how to convert 23/11 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 2.0909090909091 => 2; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 12 For calculation, here's how to convert 23/12 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.9166666666667 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 13 For calculation, here's how to convert 23/13 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.7692307692308 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 14 For calculation, here's how to convert 23/14 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.6428571428571 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 15 For calculation, here's how to convert 23/15 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.5333333333333 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 16 For calculation, here's how to convert 23/16 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 17 For calculation, here's how to convert 23/17 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.3529411764706 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 18 For calculation, here's how to convert 23/18 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.2777777777778 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 19 For calculation, here's how to convert 23/19 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.2105263157895 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 20 For calculation, here's how to convert 23/21 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.0952380952381 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 21 For calculation, here's how to convert 23/20 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 22 For calculation, here's how to convert 23/22 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 1.0454545454545 => 1; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 23 For calculation, here's how to convert 25/9 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 2.7777777777778 => 2; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 24 For calculation, here's how to convert 25/4 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 25 For calculation, here's how to convert 25/2 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this Page 26 For calculation, here's how to convert 25/3 as a Mixed Number using the formula above, step by step instructions are given below Divide the numerator and denominator, and only take the integer part of the decimal value. = 8.3333333333333 => 8; Subtract numerator value with the multiplication of denominator and whole number which you will get in step 1. The denominator value will be the same. Join all the previous steps, you will get the mixed number. like this The mixed number calculator is the best tool to add, subtract, multiply, and divide the mixed number fraction. In simple terms, this fraction and whole number calculator allows you to solve fraction problems with whole numbers and fractions form. This calculator not only simplified mixed number fractions but also shows step-by-step calculation and result in decimal corresponding to the given inputs. Well, in this post, we help you in understanding how to add (+), subtract (-), multiply (×), and divide (÷) manually and by using an online calculator. But, it’s time to explore some basic terms, know what? Read on! What is a Mixed Number? A mixed number can be defined as a combination of a whole number and a proper fraction that are existing together. Because of such mixture, a mixed fractions calculator can add, subtract, multiply, and divide every mixed number to solve math problems easily. Furthermore, mixed numbers usually denote a digit that exists among any two whole numbers. It can be created by combining 3 parts, that are: Whole number Numerator Denominator On the basis of this combination a mixed number is recognized as a partially whole number and a partially fraction. For example, if the mixed number is 2(1/5) then: Whole number: 2 Numerator: 1 Denominator: 5 An online mixed number calculator is the tool that helps to perform calculations with 3 parts of mixed numbers that are "whole number", "denominator" and "denominator". How to Add Mixed Fractions? Mixed numbers are also known as mixed fractions. Adding mixed fractions can be done conveniently by using a simple algebraic formula if you are doing manual calculations. Also, an online adding mixed numbers calculator allows you to add mixed fractions instantly. The formula is: (A divided by b) + (c divided by d)= (a multiplied by d) + (b multiplied by c)/ (b multiplied by d) Example: If we have two mixed numbers: Put the values in the above formula: 1 (4 / 6) + 2 (2 / 4) = 10 / 6 + 10 / 4 (10 * 6) + (10 * 4) / 6 * 4 (60) plus(40) divided by(24) = 100 over 24 On simplifying:100 / 24 = 25 / 6 4 (1 /6)= 4.16 However, for adding mixed fractions use of a mixed number fraction calculator can provide support for quick and error free results. How to Subtract Mixed Numbers? Subtracting mixed fractions sounds complicated but you can do it manually with the help of formula. Adding and subtracting mixed numbers can be done in same way with the similar formula equation but with changed signs. All you have to do is substitute the addition sign with the subtraction sign in the above formula: (A divided by B) – (C divided by D)= (A multiplied by D) -(B multiplied by C) / (B multiplied byD) Example: If we have two mixed numbers: Put the values in the above formula: 1 (4 / 6) - 2 (2 / 4) = 10 / 6 - 10 / 4 (10 * 4) - (10 * 6) / 6 * 4 (40)– (60)divided by 24 = - 20 divided by 24 On simplifying: - 5 / 6 = - 0.8333 How to Multiply Mixed Numbers? Multiplying mixed fractions can be done in three simple steps: Convert all the improper fractions into proper ones. Apply the algebraic formula for multiplying fractions with mixed numbers: a / b * c / d = a * c / b * d. Simplify and reduce the fraction to the possible value. Example: If we have two mixed numbers: Apply the formula and put values in it: a / b * c / d = a * c / b * d. 10/ 6 * 10/ 4 = 10 * 10/ 6 * 4 100 / 24 On simplifying the equation: 100 / 24 = 26 / 6 = 4 (1/6) In decimals: 4.166. Though, multiplying mixed numbers with a mixed fraction calculator is the most suitable option for handling such complicated calculations. How to Divide Mixed Fractions? Quit worrying! An online dividing mixed fractions calculator lets you divide mixed fractions within a fraction of seconds. But, if you want to show your work in class (step-by-step) regarding dividing mixed fractions, then we help you with an example to solve such complicated calculations manually. Example: Two mixed numbers are: 1 (4 / 6) 2 (2 / 4) For dividing mixed numbers formula is: A / b divided by c / d = a * d / b * c On putting values in the above formula we will get: 10 / 6 divided by 10 / 4 = 10 * 4 / 10 * 6 = 40 / 60 On simplifying we will get: 2 / 3 = 0.6667 About Mixed Number Calculator: This mixed fraction calculator by calculator-online is the smart tool that helps you in adding, subtracting, multiplying, and dividing mixed numbers fraction. This calculator for simply mixed fractions and allows you to change a mixed number to an improper fraction/proper fraction or vice versa. How to Use this Mixed Numbers Calculator (Add, Subtract, Multiply, & Divide): Well, simplify mixed fractions calculator is 100% free tool that simplifies the given mixed fractions number within a blink of eyes, just follow the given step to attain instant outcomes: Inputs: All you need to enter the values of mixed fraction into designated boxes of this calculator Next, you just need to choose the operator sign by which you want to simplify mixed numbers, it can either be (+, -, ×, ÷) Remember: If your mixed fractions number consists of negative or minus sign (-), then all you need to put a minus (-) while adding the value into the given fields of this calculator. Outputs: So, once you filled the above fields, simply make a hit on the calculate button, this calculator will show: Simplify mixed fraction numbers The step-by-step calculation for the given mixed fractions Mixed number fraction for the given result (if possible) Decimal of the provided result (if possible) Moreover, you can also convert a mixed number to an improper fraction by using our free online mixed numbers to improper fractions calculator FAQ’s (Mixed Numbers): How do you write a mixed number on a calculator? All you need to press “1” on your calculator, simply followed by the plus (+) sign. The “1” is symbolizes the whole number of the mixed fraction and add the numerator, or the top number of the fraction. What is 8 4 as a mixed number? The greatest common factor of 8/4 is 2, so when we divide both numerator and denominator by 2, we got the answer 2/1, means only 2. So, 2 are not expressed as a mixed number further. What is 7/4 as a mixed number? 7/4 is expressed in a mixed number or mixed fraction as 1 3/4, 1 is said to be as a whole number, 3 as a numerator, and 4 as a denominator. What are some examples of mixed numbers? A mixed number is said to be a combination of a whole number and a fraction. As an example: if you have two whole pears and one half pears, you could express this as a mixed number: 2 + 1/2 pears, or 2 1/2 pears. What is 9 4 as a mixed number? 9/4 is expressed in a mixed number as 2 1/4, 2 indicated as a whole number, 1 as a numerator and 4 as a denominator. What is 3/2 as a mixed number? 3/2 is expressed as a mixed fraction/number as a 1 1/2, 1 is indicated as whole number, 1 is numerator & 2 is denominator, respectively. What is 4/3 as a mixed number? 4/3 is expressed in mixed number as 1 1/3. What is 7 3 as a mixed number? 7/3 is expressed in mixed number as 2 1/3. What is 8 over 3 as a mixed number? 8 over 3 or 8/3 is expressed in mixed number as a 2 2/3. What is 11 3 as a mixed number? 1 1/3 as a mixed number is expressed as 3 2/3. References: From the source of math(wikia): The basic math definition of Mixed number The authorized source of onlinemathlearning provided with: Convert Mixed Numbers To Improper Fractions and vice versa Convert 3 3/4 improper fraction to mixed number with step by step detailed solution. Whole number = 3 Denominator = 4 Numerator = 3 Conversion In order to convert 3 3/4 to mixed number, you follow these steps : Conversion a mixed number to 3 3/4 a improper fraction: 3 3/4 = 12+3/4 = 15/4 15/4 = 3.75 The answer is three point seven five. 3 1/4 As A Mixed Number 3 2/4 As A Mixed Number home / math / fraction calculator Below are multiple fraction calculators capable of addition, subtraction, multiplication, division, simplification, and conversion between fractions and decimals. Fields above the solid black line represent the numerator, while fields below represent the denominator. Mixed Numbers Calculator Simplify Fractions Calculator Decimal to Fraction Calculator Fraction to Decimal Calculator Big Number Fraction Calculator Use this calculator if the numerators or denominators are very big integers. In mathematics, a fraction is a number that represents a part of a whole. It consists of a numerator and a denominator. The numerator represents the number of equal parts of a whole, while the denominator is the total number of parts that make up said whole. For example, in the fraction of 38, the numerator is 3, and the denominator is 8. A more illustrative example could involve a pie with 8 slices. 1 of those 8 slices would constitute the numerator of a fraction, while the total of 8 slices that comprises the whole pie would be the denominator. If a person were to eat 3 slices, the remaining fraction of the pie would therefore be 58 as shown in the image to the right. Note that the denominator of a fraction cannot be 0, as it would make the fraction undefined. Fractions can undergo many different operations, some of which are mentioned below. Addition: Unlike adding and subtracting integers such as 2 and 8, fractions require a common denominator to undergo these operations. One method for finding a common denominator involves multiplying the numerators and denominators of all of the fractions involved by the product of the denominators of each fraction. Multiplying all of the denominators ensures that the new denominator is certain to be a multiple of each individual denominator. The numerators also need to be multiplied by the appropriate factors to preserve the value of the fraction as a whole. This is arguably the simplest way to ensure that the fractions have a common denominator. However, in most cases, the solutions to these equations will not appear in simplified form (the provided calculator computes the simplification automatically). Below is an example using this method. ab + cd = a×db×d + c×bd×b = ad + bcbd EX: 34 + 16 = 3×64×6 + 1×46×4 = 2224 = 1112 This process can be used for any number of fractions. Just multiply the numerators and denominators of each fraction in the problem by the product of the denominators of all the other fractions (not including its own respective denominator) in the problem. EX: 14 + 16 + 12 = 1×6×24×6×2 + 1×4×26×4×2 + 1×4×62×4×6 = 1248 + 848 + 2448 = 4448 = 1112 An alternative method for finding a common denominator is to determine the least common multiple (LCM) for the denominators, then add or subtract the numerators as one would an integer. Using the least common multiple can be more efficient and is more likely to result in a fraction in simplified form. In the example above, the denominators were 4, 6, and 2. The least common multiple is the first shared multiple of these three numbers. Multiples of 2: 2, 4, 6, 8 10, 12 Multiples of 4: 4, 8, 12 Multiples of 6: 6, 12 The first multiple they all share is 12, so this is the least common multiple. To complete an addition (or subtraction) problem, multiply the numerators and denominators of each fraction in the problem by whatever value will make the denominators 12, then add the numerators. EX: 14 + 16 + 12 = 1×34×3 + 1×26×2 + 1×62×6 = 312 + 212 + 612 = 1112 Fraction subtraction is essentially the same as fraction addition. A common denominator is required for the operation to occur. Refer to the addition section as well as the equations below for clarification. ab – cd = a×db×d – c×bd×b = ad – bcbd EX: 34 – 16 = 3×64×6 – 1×46×4 = 1424 = 712 Multiplying fractions is fairly straightforward. Unlike adding and subtracting, it is not necessary to compute a common denominator in order to multiply fractions. Simply, the numerators and denominators of each fraction are multiplied, and the result forms a new numerator and denominator. If possible, the solution should be simplified. Refer to the equations below for clarification. ab × cd = acbd EX: 34 × 16 = 324 = 18 The process for dividing fractions is similar to that for multiplying fractions. In order to divide fractions, the fraction in the numerator is multiplied by the reciprocal of the fraction in the denominator. The reciprocal of a number a is simply 1a. When a is a fraction, this essentially involves exchanging the position of the numerator and the denominator. The reciprocal of the fraction 34 would therefore be 43. Refer to the equations below for clarification. ab / cd = ab × dc = adbc EX: 34 / 16 = 34 × 61 = 184 = 92 It is often easier to work with simplified fractions. As such, fraction solutions are commonly expressed in their simplified forms. 220440 for example, is more cumbersome than 12. The calculator provided returns fraction inputs in both improper fraction form as well as mixed number form. In both cases, fractions are presented in their lowest forms by dividing both numerator and denominator by their greatest common factor. Converting between fractions and decimals: Converting from decimals to fractions is straightforward. It does, however, require the understanding that each decimal place to the right of the decimal point represents a power of 10; the first decimal place being 101, the second 102, the third 103, and so on. Simply determine what power of 10 the decimal extends to, use that power of 10 as the denominator, enter each number to the right of the decimal point as the numerator, and simplify. For example, looking at the number 0.1234, the number 4 is in the fourth decimal place, which constitutes 104, or 10,000. This would make the fraction 123410000, which simplifies to 6175000, since the greatest common factor between the numerator and denominator is 2. Similarly, fractions with denominators that are powers of 10 (or can be converted to powers of 10) can be translated to decimal form using the same principles. Take the fraction 12 for example. To convert this fraction into a decimal, first convert it into the fraction of 510. Knowing that the first decimal place represents 10-1, 510 can be converted to 0.5. If the fraction were instead 5100, the decimal would then be 0.05, and so on. Beyond this, converting fractions into decimals requires the operation of long division. Show Slider Links Mixed Number Calculator is a calculator that gives step-by-step help on mixed number problems. 1 1/3 + 2 1/4 Enter your mixed numbers in the boxes above, and press Calculate! To enter your mixed number, be sure to type a space in between the whole number and the fraction. For example: 1 1/3 Or click the example. Need more problem types? Try MathPapa Algebra CalculatorAbout MathPapaPage 2 Show Slider Links Mixed Number Calculator is a calculator that gives step-by-step help on mixed number problems. 1 1/3 + 2 1/4 Enter your mixed numbers in the boxes above, and press Calculate! To enter your mixed number, be sure to type a space in between the whole number and the fraction. For example: 1 1/3 Or click the example. Need more problem types? Try MathPapa Algebra CalculatorAbout MathPapa Add, subtract, multiply, and divide your mixed with this mixed numbers calculator. Yes, this mixed number calculator performs maths quickly and displays all absolute results in moments. With that, you can get step-by-step calculations that help you to understand how fractions have been reduced. What Is a Mixed Number? ‘It is a combined representation of a whole number and a proper fraction’ Whether you have complex mixed fractions or partial proper fractions with partial whole integers, our mixed fraction calculator can instantly reduce them to the most simplified notation without any human intervention. Mixed Numbers Arithmetics: Mixed Number To Improper Fraction Conversion: This is the first rule for solving mixed numbers in mathematics. To convert, follow the lead: Multiply the denominator of the mixed fraction with the whole number Now add the result in the original numerator In the end, rewrite the improper fraction by placing the addition answer as a new numerator over the original denominator When you enter fractions in our mixed numbers calculator, it automatically turns them into improper forms and simplifies them according to math rules. Let’s apply arithmetic operations to mixed fractions! How To Add Mixed Fractions? 1 4/5 + 2 3/6 Converting mixed numbers to improper fractions: 1 4/5 + 2 3/6 = 9/5 + 15/6 Now adding mixed fractions given: a/b + c/d = (ad + bc) / bd = 9/5 + 15/6 = (54+75)/30 = 129/30 This is the required answer that you can also verify with the adding mixed fractions calculator. How to Subtract Mixed Numbers? Consider the same fractions: 9/5 + 15/6 Using the expression for subtracting mixed numbers: a/b - c/d = (ad - bc) / bd = (54-75)/30 = -21/30 Dividing both numbers by 3, we get; = -7/10 How To Divide Mixed Fractions? Dividing mixed fractions becomes so fast if you do it with our unbeatable mixed fractions calculator. However, if your goal is to simplify by hand, we prefer going through the following example: 2 8/3 ÷ 1 2/3 = 14/3 x 5/3 = 14/3 x 3/5 = 42/15 Guide To Use Our Mixed Number Calculator: Let us guide you on how you can use the tool! What You Need To Do? Enter the whole numbers, numerator, and denominators