Converting fractions to percents pdf

Adding and subtracting factions can look intimidating at first glance. Not only do you work with factions that are notoriously confusing, but suddenly you have to contend with converting numerators and denominators, too. But adding and subtracting factions is a useful skill. Once you know the vocabulary and basics, you'll add and subtract fractions with ease. This guide will guide you through everything you need to know to add and subtract factions, including some challenges to test your skills. The key to adding and subtracting factions Is that before we can get into math to add and subtract fractions, you need to know the terminology. We'll use these terms throughout, so freshen them up to make sure you always know what part of the faction we mean. Faction: a number that is not a whole number; part of the whole. For our purposes, the part will relate to a number written with a numerator and denominator, such as $1/5 or $147/4. Number: Top number in the faction, reflecting the number of parts of the whole, such as 1 in $1/5$. Denominator: Lower number in the faction representing the total number of parts, such as 5 in $1/5$. Common denominator: When two factions share the same denominator, for example $1/3 and $2/3$. The least common denominator: the smallest denominator the two factions can share. For example, the least common denominator of $1/2$ and $1/5$ is 10, because the smallest number of both 2 and 5 go into 10. The Pies make big fractions. How do I add and subtract factions? Now that you have a vocabulary, it's time to put that into action. You can't just add or subtract a fraction as you would have a whole number of $1/4- $1/2 not equal to $0/2 for example. Instead, you need to find a common denominator before you add or subtract. There are many ways to find a common denominator, some of which are easier or more efficient than others. One of the easiest ways to find a common denominator, though not necessarily the best, is to simply multiply the two denominators together. For example, the possible least common denominator for $1/2$ and $1/12$ will be the 24 you will find by multiplying 2 denominators by 12 denominators. You can solve the problem by using the common denominator 24 using the steps below, but if you do, you will work in the problem- your faction should be reduced. To eliminate the need for abbreviation after adding or subtraction, instead try to find the least common denominator. Sometimes it will be the same as multiplying the two denominators together, but it often won't. However, finding the least common denominator is not difficult - you just have to be familiar with multiplication tables. For example, let's try to find the least common denominator, not just a common denominator, for those Used above: $1/2: and : $1/12$. To do this, list several multiples of each sign 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 Multiples 12: 12, 24, 36, 48, 60 Then look at both lists of multiples and find the lowest number as 12, 24, 36, 48, 60 then look at both lists of multiples and find the lowest number as 12. In this case, both 2 and 12 share the multiple 12. If we kept going, we would end up with other multiples they share, such as 24, but 12 is the smallest, meaning it is the least common multiple. You can do this with any pair of numbers, although a larger number can be more challenging. To add or subtract, you can always go back to simply multiplying one denominator to another if you are having trouble finding the least common denominator, but keep in mind that you will probably have to reduce. Factions are the most delicious part of mathematics. How to Add Factions - Method 1 Now that you know how to find a common denominator, you're ready to start adding and subtracting. Let's go back to the example of $1/2$ and $1/12$-in this case, let's look at this problem: $$1/2 and $1/12$$ Remember that you can't add directly across; $1/2 and $1/12 is not $2/14$. #1: Find the common denominator We will find the least common denominator first, since this is usually the best way to do it. We've already done the work above, but as a reminder, you'll want to write a series of multiples of each number until you find the match. In this case, both 2 and 12 have several 12. #2: Multiply to get each numerator over the same denominator Always remember that everything you do with the denominator should also be made for the numerator. So let's look at these two factions that we need to get above the denominator 12. $1/12$ is easy - it's already over the denominator of 12, so we don't have to do anything about it. $1/2 $ will need some work. What number, multiplied by 2, will be equal to 12? To paraphrase this question as a problem that we can solve, $2'? Or, even easier, we can invert the operation to get $12/2?$, which we can easily solve. So now we know that in order to move from denominator 2 to denominator 12, we need to multiply by 6. Again, remember that everything you do for the denominator should be done for the numerator as well, so multiply the top and bottom by 6 to get $6/ $12. #3: Add numberers, but leave the denominators alone Now that you have the same denominators, you can add numerators right across. In this case, it will mean $6/12 and 1/12 and 7/12$. Ask yourself if you can reduce the faction by diving as a numerator and denominator at the same number. In this case, you can't, so your answer is a mere $7/12. How to Add Factions - Method 2 As an Alternative, We Could Just Multiply Two Denominators Together to Find Another Common This is a different way to solve this problem, but end up with the same answer. #1: Multiply Multiply Together there are no fancy tricks here-just multiply 2 by 12 to get 24. This will be your common denominator. #2: Multiply to get each numerator above the same denominator Just as we did when we found the least common denominator, we need to multiply both the top and bottom numbers of each faction. In this case, use reverse operations to see how many things you need to multiply. If $1/2$ should be $?/24$, you can make $24÷2$ to figure out what number you need to multiply by -12. Multiply the top and bottom by 12 to get $12/24. Repeat with $1/12$. If $1/12$ should be $?/24$, decide $24÷12$ to get 2. Now multiply the numerator and denominator at $1/12$2 to get $2/24. #3: Add numberers together now you can just add right across. $12/24 and 2/24 and $14/24$$. #4: Reduce that's where the extra step comes in.14/24 $14 isn't a fraction in the lowest form, so we need to reduce it. To reduce, we must divide both the numerator and the denominator into the same number. To do this, we need to find the most common factor. Much like finding the least common multiples, it means listing numbers until we find two factors that have both the numerator and the denominator have in common, except 1, like this: 14: 2, 7 24: 2, 3, 4, 6, 8, 12 What number do they have in common? 2. This means that 2 is our biggest overall factor and so the number we will be dividing the numerator and the denominator. $14÷2'7 and $24÷2'12$ gives us a $7/12 answer. The answer is the same as when we decided using the least common few, and can not be reduced further, so this is our final answer! If you ever find yourself writing out many factors unlucky, there are a few quick ways to figure out potential factors. If the number is even, it can be divided into 2. If you can add numbers that are divided into 3, that number is divided into 3, for example, 96 ($9-6-15 and $1'5'6$, which is divided into 3). If the number ends at 5 or 0, it is divided into 5. If you're not sure when to stop searching for factors, subtract a smaller number from more. This number will be the largest overall factor, but not the most common factor. For example, take 50 and 32. Sure, we could just split as much as 2 and keep cutting from there, but if you make $50-32 you get 18, telling us to stop finding the greatest common factor once we hit 18.In practice that looks like this: 50: 2, 5, 1032: 2, 4, 8, 16Inth of continuation, we know to stop when the next factor will be 18 or higher, stopping us from spending more time figuring out factors that we don't need. We can see much faster that the biggest overall factor 2 and move on with this problem! $1/1 - 1/? - How to subtract once you have mastered the addition of factions, subtraction of factions will be The process is exactly the same, although you will naturally be subtracting instead of adding. #1: Find the common denominator Let's look at the following example: $$2/3-3/10$$ We need to find the least common multiples for denominators, which will look like this: 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 10: 10, 20, 30 Number 30 they have a total of 30, so we'll put both numerator over denominator 30. #2: Multiply to get both numberers above the same denominator first, we need to figure out how much we need to multiply as the numerator and denominator of each faction to get the denominator of 30. For $2/3$, how many times is 30? In the form of an equation: $30÷3'$$$ Our answer is 10, so we multiply both the numerator and the denominator by 10 to get $20/30$. Next, we will repeat the process for the second faction. What number do we have to multiply by 10 to get 30? Well, $30÷10 x $3, so we'll multiply the top and bottom by 3 to get $9/30. This makes our problem $20/30-9/30$, which means we're ready to continue! #3: Subtract the numberers Just as we did with the addition, we will subtract one numerator from the other, but leave the denominators alone. $$20/30-9/30-11/30$$. Since we found the least common few, we already know that the problem can not be reduced further. However, let's say that we just multiplied 3 by 10 to get the denominator of 30, so we have to check if we can reduce. Let's use this little trick we learned to find the best possible common factor. Regardless of the factors of 11 and 30 stocks, they may not be more than $30-11, or $19. 11: 11 30: 2, 3, 5, 6, 10, 15 Since they do not have any common factors, the answer cannot be reduced further. The $1/10 $10 pizza is still $10/10 delicious. Add and subtract Examples. $$8/15-4/9$$ #1: Find a common denominator 15: 15, 30, 45, 60 9: 9, 18, 27, 26, 45 #2: Multiply to get both numerators over the same denominator $$45/15=\bo3$$ $$8÷3=24$$ $$15*3=45$$ $$24/45$$ $$45÷9=\bo5$$ $$4*5=20$$ $$9*5=45$$ $$20/45$$ #3: Subtract the numerators $$24/45-20/45=\bo4/\bo45$$ $$6/11+3/4$$ #1: Find a common denominator 11: 11, 22, 33, 44 4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44 #2: Multiply to get both numerators over the same denominator $$44÷11=\bo4$$ $$6*4=24$$ $$11*4=44$$ $$24/44$$ $$44÷4=\bo11$$ $$3*11=33$$ $$4*11=44$$ $$33/44$$ #3: Add the numerators $$24/44+33/44=\bo57/\bo44$$ or $$\bo1 \bo13/\bo44$$ $$4/7-11/21$$ #1 : Find the common denominator 7: 7, 14, 21 21: 21, 42, #2: Multiply to get both numerator for the same denominator $21÷7'bo3$3'4'12$$$3'7'21$$$$12/21$11$11 already more than 21, so we don't have to do anything. #3: Deduct the numerator $12/21-11/21'bo1/21$$$$8/9/7/13$#1: Find common denominator 9: 9, 18, 27, 36, 45, 63, 72, 81, 90, 99, 108, 117 13: 13: 26, 39, 52, 65, 78, 91, 104, 117 #2: Multiply to get both numerator over the same denominator or $117÷#2 <2> <8>9'bo13$$$$$8'13'104 $$$9'13'117$$$104/117$$$$117÷13'bo9$$$$$$$7 9 9 $63$$13'9'117$$$63/117$$ #3: Add a numerator $$104/117-63/117'bo167/'bo117$$ What's next? Adding and subtracting factions can become even easier if you start converting decimal signs into fractions! If you're not sure what high school math classes you should take, this guide will help you figure out your schedule to make sure you're ready for college! Now that you're an expert in adding and subtracting factions, challenge yourself by learning how to convert Celsius to Fahrenheit! Fahrenheit! converting fractions to percents worksheet. converting fractions to percents khan academy. converting fractions to percents worksheet pdf. converting fractions to percents video. converting fractions to percents games. converting fractions to percents and decimals worksheets. converting fractions to percents math antics. converting fractions to percents math drills