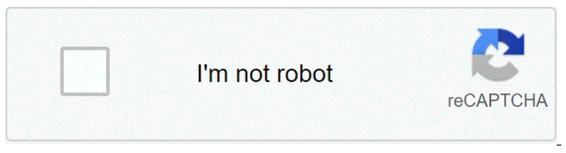

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Fraction whole number multiplication

Multiplication of fraction by a whole number and vice versa. Solve word problems involving multiplication of a fraction by a whole number. Multiplication of a whole number by a unit fraction. Fraction and whole number multiplication lesson 7.3. Multiplication of whole number and mixed fraction. How to use multiplication to divide a whole number by a fraction. How to solve fraction and whole number multiplication. Fraction whole number multiplication worksheet.

Do you need to learn how to multiply fractions with whole numbers? Or how to divide fractions by whole numbers? The process is probably easier than you think! Let's explore the 4 simple steps to follow to multiply fractions for whole numbers, as well as the only extra step to divide fractions and whole numbers. Learn this important mathematical skill, then test your knowledge by taking our quiz at the end of this guide. As Multiply Fractions With Whole Numbers: 4 Steps Multiplying fractions per whole number may seem intimidating, but the process is actually quite simple: Just four steps to follow. We walk you through each of the steps with our first sample question, then provide two additional examples so you have a solid understanding of how to multiply fractions with whole numbers. Sample Question 1: 3⁄8 x 6 Step 1: Turn the whole number in one sentence Your first step is turning the whole number into its fraction. This is easy: just give him a 1. Thus, from our example, 6 becomes 6/1. This is true because 6 divided into 1 group is still equal 6. This is true for any full number: 3 = 3/1, 17 =17/1, etc. Now we have 3⁄8 x 6/1 Step 2: Multiply i Numerators Next, we multiply the two numberers (the top number in a fraction). 3 x 6 = 18, so now we have the numberer for our answer: 18/__ Step 3: Multiply Dinominators Now multiply the two denominators (the lower number in a fraction). When you multiply a fraction with a whole number, this will be easy because you are only multiplying by 1. 8 x 1 = 8. 18/8. There you go! Step 4: Simplify But we are not finished yet. It could be possible to simplify the fraction. The simplest form of the fraction is when the upper and lower part of the fraction are the smaller whole numbers that can be. For example, fraction 18/8 is not in its simplest form because it can still be reduced to 9/4 by dividing both the upper and lower part of the fraction of 2. 9/4 is the fraction in its simplest form, but you can prefer to change it in a mixed number from 9/4 is greater than 1. 4 goes to 9 twice, with a rest of 1, so the answer can also be written as 2 1⁄4. You may want to give the answer as decimal. We have an entire guide on converting fractions into decimals (and the other way around), but here's how to do this simply. The 2 remain the same, as it is a whole number. You probably already know that 1⁄4 is 0.25, so that it becomes the value on the right side of the decimal, for a final response of 2.25. Sample question 2: 4 x 2⁄5 Step 1: 4/1 x 2⁄5 Step 2: 4 x 2 = 8 Step 3: 5 x 1 = 5 Step 4: Our response, 8/5, cannot be further simplified as an improper fraction (where the numberer is larger than thebut can be converted into a mixed number. 5 goes in 8 once, with 3 remaining, then the mixed number response is 1 3⁄5. To convert 3⁄5 to a decimal, first we want to get the denominator to a value of 10. To do this, justboth parts of the fraction for 2, getting 6/10. Now we want to get the denominator equal to 1 to get rid of the fraction so we divide each part of the fraction for 10. This gives us .6/1, which is also equal to .6. Combine this with the full number (1) of the answer and your final answer in decimal form is 1.6. Example question 3: 5 x 2 3/7Â Â Step 1: The fraction is in the form of a mixed number, so first we have to convert it into an improper fraction. Remember, when you look at or subtract fractions, the denominators must be the same. To obtain that the full number 2 has the same denominator, make it in a fraction, 2/1, then multiply the upper and lower part for 7. You will get 14/7 which, summed to 3/7, makes 17/7. Make the 5th a fraction. Now we have: 5/1Â x17/7 Step 2: 5 x 17 = 85 Step 3: 7 x 1 = 7 Step 4: Now we have 85/7. It cannot be simplified, but it can be transformed into a mixed number. 7 is in 85 12 times, with a rest of 1. Our final answer is 12 1/7, or 12.14 in decimal form. 5 steps to divide fractions by whole numbers (and vice versa) Divide two fractions is like multiplying for the reciprocal of the second fraction. This means that once you have learned to multiply fractions by whole numbers, you know how to divide fractions by whole numbers! Below we explain two examples, one in which you divide a fraction by a whole number (using the same values as the previous #1 example), and the other in which you divide a whole number by a fraction. Example Question 4: â ¦ / 6 Step 1: Turn the whole number into a fraction Just as we did when we passed the multiplication of fractions by whole numbers, turned 6 into a fraction by adding a 1 to the denominator: 6/1 Step 2: Turn the second number This is the additional step necessary to divide fractions. At this time we have â ¦ / 6/1. Turn the second number and change the sign of division into a sign of multiplication: â ¦ x â ¦ Once you do this, solve the problem just like you did with the previous examples. Step 3: Multiply numberers 3 x 1 = 3 Step 4: Multiply the denominators 8 x 6 = 48 This gives us 3/48 Step 5: Simplify Don't forget to simplify! We can divide both the numberer and the denominator by 3, which gives us a final response of 1/16 or 0.0625. Maybe you were in fifth grade the last time you thought you would multiply fractions. But if you are trying to halve a recipe or calculate the new price of a sale sweater using fractions, you may need to dig in the back of your memory to figure out how to do it. We update: In each fraction, there is a higher number and a lower number, separated by a short horizontal line. In a real fraction, the smallest number, called numberer, is always high, while the largest number,It’s downstairs. The numerator tells us how many units we have of a whole and the denominator tells us how many units make up the whole. So in the fraction 1/2, 1 is the numerator and 2 is the â € "There are two units in the complex, but this fraction tells us that we only have one of these units. Cross when adding or subtracting fractions, you can multiply fractions with different denominators. For example, it is not a problem to multiply 3/4 x 2 / 5.STrep 1The first step to multiply two fractions together is to multiply the numbers together.3 x 2 = 6Step 2 the second step is to multiply the denominators together.4 x 5 = 20 quite easy! So our fraction is now similar to this: 3/4 x 2/5 = 6/2053 the third step is to simplify or reduce, the fraction, because there is a better way to read a fraction. To do this, we find the largest Number We can divide both the numberer and the denominator to reduce the fraction. In this case, the highest number that divides evenly in both is 2, so the reduced response to this multiplication problem is 3/10. Updated on April 24, 2017 by Hannah Richardson If you are perforating this skill or solving a word problem, there are several steps to follow when multiplying a fraction and a whole number. If you're solving a word problem, the word "of" in mathematics translates into multiplication. If you need to find "three-eighths of 32", your equation to solve it is 3/8 x 32. The first step to multiply a whole number by a fraction is to transform it into a fraction itself. A fraction is really a problem of division, and each number is divided by 1. To turn a whole number into a fraction without changing its value, put it on a 1. denominator This is true for any number, no matter the size. One million as a fraction is 1,000,000 / 1. To find 3/8 of 32 people, your problem becomes 3/8 x 32/1. Once you have turned your entire number into a fraction, follow the rules to multiply fractions. Multiply the upper numbers of the fraction, straight through. The best numbers are numbers. For example, with 3/8 x 32/1, multiply 3 x 32 to obtain 96. The answer numberer is 96. Multiply the numbers on fraction funds, called the denominators. This is simple if you multiply from a whole number, because the whole number denominator is 1. by 3/8 x 32/1, multiply 8 x 1. The product of your denominators is the denominator of your answer: 8. Your answer is not complete until you have written your product in its simplest form. To simplify a fraction, divide the numberer and the denominator from the largest common factor, which is the largest number entering both uniformly. In the example of finding 3/8 of 32 people, your initial response is 96/8, but this is not in its simplest form. Both 96 and 8 are divided by 2, 4 and 8, with 8 being the largest common factor. Divide the numberer and the denominator for 8 to get the 12/1 or 12. Your answer is 12Do mathematical calculations with mixed numbers (mixed fractions) performing operations on fractions, whole numbers, whole numbers, mixed numbers, mixed fractions and improper fractions. Mixed numbers calculator can add, subtract, multiplydivide mixed numbers and fractions. Mixed Number Calculator (also called Mixed Fractions): This online calculator manages simple operations on whole numbers, entire numbers, mixed numbers, fractions and improper fractions by adding, subtracting, dividing or multiplying. The answer is given in a small 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. Maintain exactly a space between the entire number and the fraction and use a forward slash for input fractions. You can insert up to 3 digits in length for each whole number, numberer or denominator (123 456/789). Full numbers: Up to 3 digits in length. Fractions: enter as 3/4 which is three quarters or 3/100 which is three cents. It is possible to insert up to 3 length digits for each numberer and denominator (e.g., 456/789). Add Mixed Numbers using the Adding Fractions Formula Convert mixed numbers to improper fractions Use the algebraic formula for addition of fractions: a/b + c/d = (ad + bc) / bd Reduce fractions and simplify if possible the addition of Formula Fractions \(\dfrac{a}{b} + \dfrac{c}{d} = \dfrac{(a \time d) + (b\time c)}{b\time d} \) Example + Add 1 2/6 and 2 1/4 \(1\ \(= \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 Then we get 86/24 and simplify to 3 7/12 Subtrac Use the algebraic formula for fraction subtraction: a/b - c/d = (ad - bc) / bd Reduce fractions and simplify if possible \(* - \dfrac{c}{d} = \dfrac{(a \time d) - (b \times c)}{b \times d} \) Example Subtract 2 1/4 from 1 2/6 1 2/6 - 2 1/4 = 8/6 - 9/4 = (8* a/b * c/d = ac / bd Reduce fractions and simplify, if possible, the fractions of multiplication Formula \(\dfrac{a}{b} Time = \dfrac{a \time c}{b \times d}\) Example multiply 1 2/6 for 2 1/4 1 2/6 * 2 1/4 = 8/6 * 9/4 = 8 * 9 / 6 * 4 = 72 / 24 Reduce the fraction to obtain 3/1 and simplify to 3 Mixed Numbers Dividers using the Fractions formula Convert Mixed Numbers to Improper fractions Use formula to divide a/b ÷ c/d = ad / bc Reduce fractions and simplify if possible the formula of fractions of division \(\dfrac{a}{b}) = \dfrac{a \time D}{b \times c} \) Divided example 1 2/6 from 2 1/4 1 2/6 ÷ 2 1/4 = 8/6 ÷ 9/4 = 8 *4 / 9 *6 = 32 / 54 Reduce the fraction to obtain 16/27 Related calculators To perform mathOn simple correct or improper fractions use our fractionship calculator. This calculator simplifies improper fraction responses in mixed numbers. If you want to simplify a single fraction in lower terms use our calculator of simplified fractions. For an explanation of how to determine the numbers to find the largest common factor (GCF) see the largest common factor calculator. If you are simplifying large fractions by hand you can use the Long Division with the remainders calculator to find the integer and the remaining values. values.