

I'm human



$$\left(\frac{5}{2}\right) \times 2x + \left(\frac{5}{2}\right) \times 8 + \left(\frac{y}{4}\right) \times 4 + \left(\frac{y}{4}\right) \times x = \frac{10x+20+y \times 4+x \times y}{4}$$
 To simplify an algebraic expression, you need to combine like terms and remove common factors. When simplifying expressions with fractions, make sure the fraction is in its simplest form and only keep unlike terms. Some expressions may require factoring to simplify. The article then provides examples of simplifying algebraic expressions. The first example is $\left(\frac{5}{2}\right) \times (2x+8) + \left(\frac{y}{4}\right) \times (4+x)$ which can be simplified as $5x + \frac{xy}{4} + y + 20$. The article also provides rules for simplifying algebraic expressions, including:

- * Combining like terms by adding or subtracting their coefficients
- * Reversing the signs of terms inside parentheses if there is a negative sign before the parentheses
- * Removing brackets and keeping the signs of terms unchanged if there is a positive sign before the parentheses

The article then provides solutions to several examples of simplifying algebraic expressions, including:

- * $5x - (-2x^2 + 3x - 1)$ which simplifies to $2x^2 + 2x + 1$
- * $4ab - 2b + 3(a + 1) - 2b$ which simplifies to $7ab - 4b + 3$
- * $\left(\frac{5x^2}{10x^2+5x^3}\right) \times (10x^2+5x^3)$ which simplifies to $\frac{1}{2} \times (2+x)$
- * $\left(\frac{10x^2-34}{10x^2-34}\right)$ which simplifies to $5x^2-17$

Finally, the article provides a solution to the algebraic expression $15xy-13+4x+3y+xy+21$, which simplifies to $4x + 16xy + 3y + 8$. by multiplying 3 with $2x$. 00:00:50.210 Let's take another example, $2(x+1)$. 00:00:55.220 This expression is equals to $x+1$ plus $x+1$. 00:01:05.010 If you simplify this expression, you get $x + x = 2x$, and 1, plus 1, equals to 2. 00:01:15.180 Now, notice this, you can also get $2x$ by just multiplying 2 with x . 00:01:22.240 Similarly, you also can get 2, by just multiplying 2 with 1. 00:01:30.120 Alright, let's apply what you have learn here by simplifying this expression. 00:01:36.210 Let' remove the brackets in this term. 00:01:41.210 To remove the brackets, multiply 2 with $3a$. This gives positive $6a$. 00:01:50.010 Let's put back this term, positive $6a$, back into the expression. 00:01:55.170 Now, let's remove the brackets in this term. 00:02:00.210 First, multiply -2 with $4a$. This gives -a. 00:02:07.100 Then, we multiply -2 with -3b. This gives +6b. 00:02:14.020 Let's put these terms back into the expression. 00:02:18.240 Now, notice that you can simplify the like terms +6a and - 8a. Adding them up gives -2a. 00:02:32.160 The expression is now -2a + 6b. Since there is no more like terms, this is the simplest expression you can get. 00:02:43.030 One last example, simplify this expression. 00:02:46.160 Let's remove the brackets in the term, $-(2x-3)$. 00:02:56.010 Notice this 'negative sign', what does it means? This negative sign is actually the the same as -1. 00:03:06.040 Knowing this, we now multiply -1with $2x$. This gives -2x. 00:03:14.110 Now, we multiply -1 with -3. This gives +3. 00:03:21.140 Let's put back these terms back into the expression. 00:03:25.13 Now, let's remove the brackets for $2(x+4)$. 00:03:31.180 Multiply +2 with x . This gives $2x$. 00:03:37.060 Now, multiply +2 with +4. This gives +8. 00:03:44.140 Let's put back these terms back into the expression. 00:03:48.220 Now, notice that there are like terms in this expression. Let's group the like terms together. 00:03:55.070 To simplify this expression, add +2x with -2x. These terms cancels off each other. So, you don't have to write anything. 00:04:07.010 Now, add +3 with +8. This gives +11. 00:04:13.150 Since there is no more like terms, this is the simplest expression you can get. 00:04:19.040 That's all for this lesson. Try out the practice questions to test your understanding.

How to simplify algebraic expressions with brackets and powers. Simplifying expressions brackets. Algebraic expressions simplifying. How to solve algebraic expressions with brackets. How to simplify algebraic expressions step by step. Easy way to simplify algebraic expressions.