

Accuplacer Study Modules

TOPIC: Simplifying Algebraic Expressions with Fractions

Khan Academy Link: <https://www.khanacademy.org/math/algebra-basics/core-algebra-expressions/al/v/algebraic-expression-adding-fractions>

Sample Problem:

Simplify the expression: $4x + \frac{3x}{2}$

Note 1: You need to remember that you cannot add or subtract fractions unless they have a **common denominator!**

$4x + \frac{3x}{2}$ Since the denominator of the fraction is 2, we need to **get a denominator** of 2 in the first term.

$\frac{4x*2}{1*2} + \frac{3x}{2}$ **Multiply the numerator and denominator** of the term $4x$ **by 2**

$\frac{8x}{2} + \frac{3x}{2}$ **Simplify** the first term

$\frac{8x+3x}{2}$ **Add** the numerators

$\frac{11x}{2}$ **Simplify** the numerator (in this case you combine like terms).

$\frac{11x}{2}$ **Record your Answer**

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Instructions: Simplify each expression

1. $2x - \frac{5x}{3}$

2. $\frac{2x}{3} + \frac{3x}{4}$

3. $\frac{1}{3}(x + 12) + 2x$

4. $\frac{2}{5}(x - 3) - \frac{x}{2}$