

Algebra 2

7-04 Adding and Subtracting Rational Expressions

Adding and Subtracting

1. Need _____ (LCD)
 - a. If LCD already present, add or subtract _____ only
2. To get fractions with LCD
 - a. _____ all denominators
 - b. LCD is the _____ of the highest _____ of each _____ in either expression
 - c. Whatever you _____ the denominator by, multiply the _____ also

Find the least common multiple of $5x$ and $5x - 10$.

Find the least common multiple of $2x^2 - 18$, $x^2 + x - 12$

$$\frac{15}{4x} + \frac{5}{4x}$$

$$\frac{5x}{x+3} + \frac{15}{x+3}$$

$$\frac{12}{x^2 + 5x - 24} + \frac{3}{x - 3}$$

$$\frac{3}{x+4} - \frac{1}{x+6}$$

Simplifying Complex Fractions

1. Fractions within _____
2. Follow _____ (groups first)
3. _____

$$\frac{\frac{1}{3x^2-3}}{\frac{5}{x+1} - \frac{x+4}{x^2-3x-4}}$$

$$\frac{\frac{x}{3} - 6}{10 + \frac{4}{x}}$$