

Addition and Subtraction of Rational Numbers

$$\frac{a}{b} + \frac{c}{b} = \frac{a + c}{b} \quad \text{and} \quad \frac{a}{b} - \frac{c}{b} = \frac{a - c}{b}$$

Strategy for Finding the Least Common Multiple (LCM) for Polynomials

1. Factor each polynomial completely. Use exponents to express repeated factors.
2. Write the product of **all** of the different factors that appear in the polynomials.
3. For each factor, use the **highest power** of that factor in any of the polynomials.

Adding and Subtracting Simple Fractions

$$\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd} \quad \text{and} \quad \frac{a}{b} - \frac{c}{d} = \frac{ad - bc}{bd}$$