

# Mr. B's Algebra Connections



## Fully Competent: Complex Fractions



Fall  
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**Complex Fractions/Compound Fractions.** A rational expression whose numerator or denominator or both numerator and denominator contain fractions, also called a **complex rational expression**.

**Method 1:** Combine fractions in the numerator. Combine fractions in the denominator. Remember, ALL fractions represent division. Rewrite as the numerator multiplied by the reciprocal of the denominator.

1. Add or subtract fractions in the numerator or denominator so that the numerator is a single fraction and the denominator is a single fraction.
2. Perform the indicated division by multiplying the numerator of the complex fraction by the reciprocal of the denominator of the complex fraction.
3. Write the resulting rational expression in lowest terms.

**Method 2:** Clear denominators of ALL fractions in the complex fraction. Find the lowest common denominator for ALL fractions (LCD) and multiply BOTH the numerator and denominator by the LCD. This will create a rational expression instead of a complex fraction.

1. Find the LCD of all the fractions in the complex fraction.
2. Multiply BOTH the numerator and denominator of the complex fraction by the LCD from step 1.
3. Perform the indicated operations and write the results in lowest terms.