Adding and Subtracting Rational Expressions

Put all expressions in parentheses. Factor GCF (numbers, variables) and quadratics (expressions)

Same Denominator?

No → Identify LCD
- Numbers
- Variables
- Expressions

Yes

Is this an equation?

Yes → Multiply each term's numerator by the LCD ** on both sides of = (or by $\left[\dfrac{LCD}{1}\right]$)

No → Multiply each numerator and denominator by LCD's remaining factors

Set to = 0. Solve as an equation; there should be no denominators

Simplify; factor GCFs and quadratics

Set each variable = to 0 and solve for each.

Check each solution in the denominators. If any of the denominators = 0, then reject that solution

Add/subtract numerators, FOIL as needed and write "LCD" as denominator

Simplify numerators by factoring GCFs and quadratics. Write "LCD" as denominator

Now write in LCD and reduce answer to lowest terms