

Advanced Algebra
Rational and Radical Functions: Solving Rational Equations

Procedure:

1. Factor, if possible, the denominators of all fractions.
2. Find the Least Common Denominator of all the fractions in the equation - disregard terms that are not fractions.
** The LCD will be the least possible multiple of the denominators. **
3. Multiply both sides of the equation by the LCD - don't forget to distribute the LCD if one or both sides of the equation has more than one term.
4. Reduce (cancel) wherever possible.
** All denominators should cancel out with part of the LCD - if not, then go back to step 2! **
5. The remaining equation should be a polynomial - distribute where necessary, combine like terms, gather all the terms to one side, and solve the polynomial.
6. When you have found all the solutions, **CHECK THEM AGAINST THE ORIGINAL EQUATION!** Any solution that causes the denominator to equal zero must be eliminated!