

Rational Equations

1. Find the L.C.D.
2. Multiply **EVERY** term by the LCD to get rid of all the fractions.
(OR Cross-multiply, if you can**)
3. Solve the resulting equation.
4. Check for extraneous solutions. (Substitute answers into the denominator to see if this would cause division by zero. You must throw out any solutions that cause division by zero because it is undefined.)

$$1. \frac{7}{6x} - \frac{5}{8x} = \frac{13}{12}$$

$$2. \frac{1}{x^2} - \frac{1}{12x} = \frac{1}{12}$$

$$3. \frac{3}{x-1} + \frac{4}{x+2} = \frac{16}{x^2+x-2}$$

$$4. \frac{3}{x-2} - \frac{2}{x} = \frac{6}{x^2-2x}$$

$$5. \frac{3}{x+1} = \frac{2x+5}{x^2+x} \quad **$$

$$6. \frac{5}{5x+3} = \frac{5x-2}{x-1} \quad **$$

$$7. \frac{2x+4}{x+2} - \frac{x+3}{x-2} = \frac{1}{2}$$