Math 9 Review - Part 4

Solving Equations with Rational Coefficients

When an algebraic equation contains fractions (rational expressions), we will remove the denominator(s) by multiplying each term by the lowest common denominator.

The lowest common denominator (LCD) is the lowest common multiple that a set of fractions share.

1) See it smaller denominators 2) it not, keep multiplying divide into largest denominator. denom. until you find a Example 1: Solve the following equations. (Eliminate any denominators first.) all denominators LCD = 3

LCD of 5,2,10

bacausa:

$$3 \left(14 = \frac{c}{3}\right)$$

$$3(14) = 3\left(\frac{2}{3}\right)$$

$$5 \left(2 - \frac{x}{5} = 3\right)$$

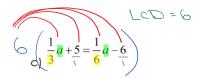
$$5(2) - 5(\frac{x}{5}) = 5(3)$$

$$10 - \chi = 15$$

$$(-1)x = 5$$

$$-1$$

$$-x = -x$$



$$6(5) = 6(5) = 6(6)$$

$$\frac{6}{3}\alpha + 30 = \frac{6}{6}\alpha - 36$$

$$\begin{array}{c|c}
 2a + 30 &= 1a - 36 \\
 -1a & -1a \\
 \hline
 a + 30 &= 1 - 36
 \end{array}$$

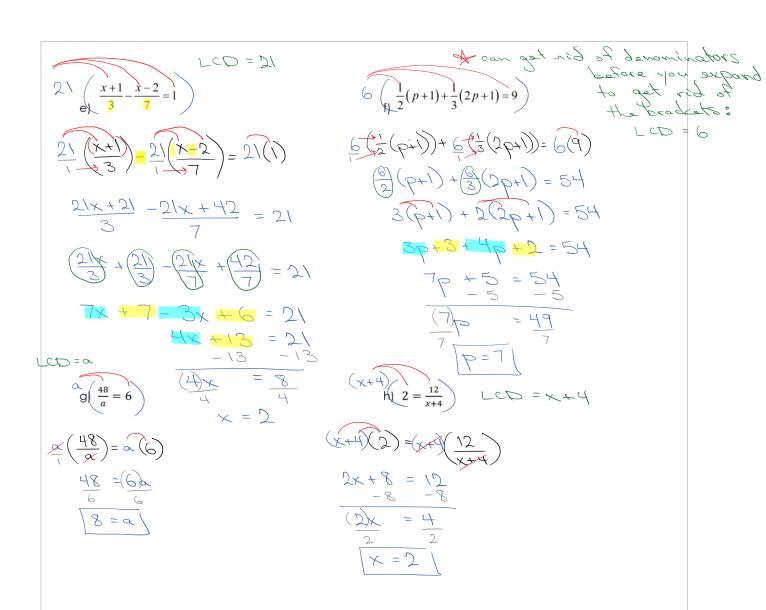
$$\frac{x}{5} + \frac{1}{2} = \frac{3}{10}$$

$$\frac{10 + x}{1 + 5} + \frac{10 + 1}{1 + 2} = \frac{10 + 3}{1 + 10}$$

$$\frac{20+5=3}{-5-5}$$

$$\frac{-5}{2}$$

F & PC 10



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