Fractions Bite – The Problem with Parentheses

When solving equations involving fractions, the first step is usually to clear those fractions. But what do you do when the equation involves parentheses?

Ex: Solve

$$\frac{3x}{2} - \frac{1}{3}(6x + 9) = -2x + 3$$

Clear fractions → Find the LCD/LCM

LCD: 2, 3 ⇒ 6 = $\frac{6}{1}$

$$\frac{3x}{2} - \frac{1}{3}(6x+9) = -2x + 3$$

1 2 3 4 — 4 Terms

$$\frac{6}{1}\cdot\frac{3x}{2} - \frac{6}{1}\cdot\frac{1}{3}(6x+9) = 6(-2x) + 6(3)$$

$$3(3x) - 2(6x+9) = -12x + 18$$

$$9x - 12x - 18 = -12x + 18$$

$$-3x - 18 = -12x + 18$$