

* Solve $\frac{2}{x-3} - \frac{3}{x+3} = \frac{12}{x^2-9}$
 $(x+3)(x-3)$

LCM = $(x-3)(x+3)$

$$\frac{(x-3)(x+3)}{1} \left(\frac{2}{x-3} - \frac{3}{x+3} \right) = \frac{12}{(x+3)(x-3)} \cdot \frac{(x-3)(x+3)}{1}$$

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

$$2x+6 - (3x-9)$$

$$2x+6 - 3x+9 = 12$$

$$\begin{array}{r} -1x + 15 = 12 \\ -15 \quad -15 \\ \hline \end{array}$$

$$(-1)(-1x) = (-3)(-1)$$

~~$x=3$~~ ←

check answers (denom = 0?)

~~$\frac{2}{x-3}$~~ undefined when $x=3$

No solution