Algebra 2 Bellwork Tuesday, February 2, 2016

Solve each equation.

1. $\frac{7x}{12} - \frac{5}{9} = \frac{8}{3} + \frac{11x}{6}$

2. $\frac{x}{x+2} - \frac{10}{(x-3)(x+2)} = \frac{2x}{x-3}$

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Solve each equation.

1. $36\left(\frac{7x}{12} - \frac{5}{9}\right) = \left(\frac{8}{3} + \frac{11x}{6}\right)36$

$21x - 20 = 96 + 66x$

$-21x \qquad -21x$

$-20 = 96 + 45x$

$-96 \quad -96$

$\frac{-116}{45} = \frac{45x}{45}$

$x = \frac{-116}{45}$

2. $\frac{x}{x+2} - \frac{10}{(x-3)(x+2)} = \frac{2x}{x-3}$

$(x-3)(x+2)\left(\frac{x}{x+2} - \frac{10}{(x-3)(x+2)}\right) = \left(\frac{2x}{x-3}\right)(x-3)(x+$

$x(x-3) - 10 = 2x(x+2)$

$x^2 - 3x - 10 = 2x^2 + 4x$

$0 = x^2 + 7x + 10$

$0 = (x+5)(x+2)$

$x = -5, -2$ extraneous sol

$x = -5$